Revised Agenda
Reef Fish Management Committee

Gulf of Mexico Fishery Management Council

Hilton Riverside Hotel-Jefferson Ballroom
New Orleans, Louisiana

Tuesday, August 11th
8:30 AM – 5:00 PM

I. Adoption of Agenda **(Tab B, No. 1)** – Greene

II. Approval of Minutes **(Tab B, No. 2)** – Greene

III. Action Guide and Next Steps **(Tab B, No. 3)** – Atran

IV. Public Hearing Draft Amendment 39 – Regional Management of Recreational Red Snapper **(Tab B, No.4)** – Lasseter

V. Updated Options Paper – Framework Action to Set Gag Recreational Season and Gag and Black Grouper Minimum Size Limits **(Tab B, No.5)** – Atran

---------- 15 minute break at 10:00 AM – 10:15 AM ----------

VI. Final Action – Amendment 28 – Red Snapper Allocation
- a. Review of amendment **(Tab B, No. 6a)** – Diagne
- b. Public comments – Muehlstein
- c. DEIS comments – Hood
- d. Review of codified text (**Tab B, No. 6d**) - NMFS

VII. Final Action – Framework Action to Retain a Portion of the Commercial Red Snapper Quota in 2016
- a. Review of framework action **(Tab B, No. 7a)** – Diagne
- b. Review of codified text (**Tab B, No. 7b**) - NMFS

VIII. Draft Framework Action – Modify Gear Restrictions for Yellowtail Snapper **(Tab B, No. 8)** – Rindone

---------- 1½ hour lunch break at 12:00 PM – 1:30 PM ----------

IX. Options Paper – Amendment 42 – Federal Reef Fish Headboat Management **(Tab B, No. 9)** – Diagne/Stephen

X. Options Paper – Amendment 41 – Federal Charter-for-Hire Red Snapper Management **(Tab B, No. 10)** – Lasseter

---------- 15 minute break at 3:00 PM – 3:15 PM ----------

XI. Discussion – Ad Hoc Private Recreational AP

- State Directors Summaries of Comments

  Florida **(Tab B, No. 11a)**
  Alabama **(Tab B, No. 11b)**
  Mississippi **(Tab B, No. 11c)**
  Louisiana **(Tab B, No. 11d)**
  Texas **(Tab B, No. 11e)**

- Past Council Efforts – Muehlstein

  RAP Session Summaries **(Tab B, No. 11f)**
  Private Rec Data Collection AP Summary 5-2012 **(Tab B, No. 11g)**
  Private Rec Data Collection AP Summary 2-2013 **(Tab B, No. 11h)**

XII. Other Business
a. Gray triggerfish bag and size limits – Greene

---------- Adjourn at 5:00 PM ----------

Members:
John Greene, Chair
Camp Matens, V. Chair
Doug Boyd
Roy Crabtree/Steve Branstetter
Jamie Miller/ Kelly Lucas
Randy Pausina/Myron Fischer
Robin Riechers/Lance Robinson
David Walker
Nick Wiley/Martha Bademan
Roy Williams

Staff: Steven Atran/Carrie Simmons

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

REEF FISH MANAGEMENT COMMITTEE

Marriott Beachside Hotel Key West, Florida

JUNE 9-10, 2015

June 9, 2015

VOTING MEMBERS

John Greene.....Alabama
Martha Bademan (designee for Nick Wiley).....Florida
Doug Boyd.....Texas
Roy Crabtree.....NMFS, SERO, St. Petersburg, Florida
Dale Diaz (designee for Jamie Miller).....Mississippi
Myron Fischer (designee for Randy Pausina).....Louisiana
Campo Matens.....Louisiana
Lance Robinson (designee for Robin Riechers).....Texas
David Walker.....Alabama
Roy Williams.....Florida

NON-VOTING MEMBERS

Kevin Anson.....Alabama
Leann Bosarge.....Mississippi
Jason Brand.....USCG
Pamela Dana.....Florida
Dave Donaldson.....GSMFC
Harlon Pearce.....Louisiana
Corky Perret.....Mississippi
John Sanchez.....Florida
Greg Stunz.....Texas

STAFF

Steven Atran.....Senior Fishery Biologist
Assane Diagne.....Economist
John Froeschke.....Fishery Biologist/Statistician
Doug Gregory.....Executive Director
Karen Hoak.....Administrative and Financial Assistant
Morgan Kilgour.....Fishery Biologist
Ava Lasseter.....Anthropologist
Mara Levy.....NOAA General Counsel
Emily Muehlstein.....Fisheries Outreach Specialist
Charlene Ponce.....Public Information Officer
Ryan Rindone.....Fishery Biologist/SEDAR Liaison
Bernadine Roy.....Office Manager
Charlotte Schiaffo.....Research & Human Resource Librarian
Carrie Simmons.....Deputy Director

OTHER PARTICIPANTS

Pam Anderson.....Panama City Beach, FL
Adam Bailey.....NMFS SERO
Luiz Barbieri.....GMFMC SSC
Steve Branstetter.....NMFS
Shane Cantrell.....CFA, Galveston, TX
Michael Drexler.....Ocean Conservancy, St. Petersburg, FL
Lauren Eliopoulos.....St. Petersburg, FL
Martin Fisher.....FL
Sue Gerhart.....NMFS
Richard Gomez.....Key West, FL
Ken Haddad.....American Sportfishing Association, FL
Tom Haugen.....Newport, FL
Frank Helies.....GSAFF, Tampa, FL
Scott Hickman.....Galveston, TX
Van Hubbard.....Placida, FL
Judy Jamison.....FL
Gary Jennings.....Windermere, FL
Walter Keithly.....LA
Bill Kelly.....FKCFA
Mike Larkin.....SERO
Kelly Lucas.....MDMR
Kristen McConnell.....EDF, Austin, TX
Matt McPherson.....SEFSC
Bart Niquet.....Lynn Haven, FL
Kelli O'Donnell.....NMFS, Summerland Key, FL
Larry Peruso.....
Bonnie Ponwith.....SEFSC
Clay Porch.....SEFSC
George Sedberry.....NOAA
Rick Turner.....Marathon, FL
Russell Underwood.....Lynn Haven, FL
Tom Wheatley.....Pew, Tampa, FL
Daniel Willard.....Austin, TX
Johnny Williams.....Alvin, TX

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The Reef Fish Management Committee of the Gulf of Mexico Fishery Management Council convened at the Marriott Beachside Hotel, Key West, Florida, Tuesday morning, June 9, 2015, and was called to order at 9:00 a.m. by Chairman Johnny Greene.

ADOPTION OF AGENDA
APPROVAL OF MINUTES
ACTION GUIDE AND NEXT STEPS

CHAIRMAN JOHNNY GREENE: Good morning and with that, I am going to call the Reef Fish Committee together. All members are present and the first item is the Adoption of the Agenda. Is there any additions to the agenda? Seeing no additions, we will call for an adoption of the agenda.

MR. ROY WILLIAMS: Move to adopt the agenda as written.

CHAIRMAN GREENE: The motion has been adopted and seconded. The next item is Approval of Minutes. Any corrections to the minutes? Seeing none, is there a motion to --

MR. WILLIAMS: Motion to adopt the minutes.

CHAIRMAN GREENE: Thank you, sir. Is there a second? Thank you. I appreciate it. Item III is basically your Action Guide and Next Steps, Tab B, Number 3, which is for your information. The next thing will be the Options Paper on Joint South Florida Management and Dr. Simmons.

OPTIONS PAPER - JOINT SOUTH FLORIDA MANAGEMENT BACKGROUND ON SOUTH FLORIDA ISSUES

DR. CARRIE SIMMONS: Thank you, Mr. Chair, and good morning. I think that Ms. Bademan is going to start with a short presentation to the committee.

CHAIRMAN GREENE: Okay. Ms. Bademan, are you ready?

MS. MARTHA BADEMAN: We are going to be talking a lot about South Florida issues at this meeting. I know not all of us have been with this topic the last few years as it has moved through the subcommittee that's been working on these issues and so I wanted to just give a quick overview about where we've been and where the committee has been trying -- The options that the committee is looking at before we dive into this today and then dive into it again on Thursday with the South Atlantic Council and so that's just my point here.

It's a little unorthodox for a council member probably to be giving this presentation, but Florida FWC held the scoping meetings on some of these issues and so I thought I would let you guys know things that we heard and the issues that we identified and then we can go from there.

This committee was formed in reaction to a motion that was made at the South Atlantic Council the last time the two councils met jointly in Key West and that was in 2011. It was quite a ways

ago, but basically the South Atlantic Council asked that the Gulf Council and NMFS form this ad hoc joint committee to come up with a plan for South Florida fisheries and part of what this committee discussed was potentially delegating management of some species to the State of Florida.

Since that time, we kind of got ourselves organized in 2013 and we formed a subcommittee. The subcommittee members from this council at this point are myself, Pam, John Sanchez, and Roy Williams. This committee has met a number of times in the Keys and we've come up with a suite of options and alternatives for some of the management problems I'm going to talk about in a minute and then, of course, we will be meeting this week jointly with the South Atlantic Council to kind of choose a path forward.

The reason why this committee was even formed is there's a lot of confusion and frustration with the jurisdictional boundaries and regulations in the Florida Keys. We have the South Atlantic Council regulations and we have Gulf Council regulations and we have Florida FWC. There are sanctuary regulations on top of that in some areas and national parks and state parks. It is very confusing. Depending on where you are, you could be subject to two or maybe three or four different sets of regulations, depending on where you are fishing and where you are landing your fish.

At the scoping meetings that FWC held, John was there and we had a representative from the South Atlantic Council, Ben Hartig, and then myself and Jessica McCawley were there from FWC.

Some of the big things that we heard were people really wanted to see some consistency between state and federal rules and then also some -- There was a desire to see something different for South Florida because people felt that the ecosystems and the fisheries here are unique and there are a number of fisheries that are South Florida centric, so to speak, and they wanted to see some kind of action taken there.

The South Atlantic Council has been going through a visioning process the last few years and they have heard similar concerns about the inconsistencies with regulations between state and federal waters and then also between the two councils.

Just to give you an idea of some of the regulatory boundaries and complexities here, the orange line down the middle of the Keys that follows US1 is the Gulf and Atlantic boundary for state waters.

You can see the federal waters of the Gulf in green and the Atlantic is kind of a purple color and then on top of that we have many different smaller management zones. The Sanctuary is the purple dotted lines and we've got the Tortugas has special management and the Everglades National Park and Biscayne National Park. Depending on where you are, you have got a lot of regulations to follow and different regulations in different areas.

Some of the ideas that we've heard from the public at the scoping meetings that were held and other meetings, one would be to develop some kind of regional management for South Florida centric species. These would be species like yellowtail snapper, mutton snapper, and black grouper.

Some folks wanted to see some kind of just regional management for the Keys and South Florida in general. One of the suggestions we heard was to have a regional fishery management plan that the councils put together that is similar to what the Caribbean has done for islands. I guess for different areas or different islands they have different fishery management plans that are specific to that locality's needs.

One of the ideas we heard was to just place all the Keys under the jurisdiction of one council, whether it's South Atlantic or the Gulf. We also heard suggestions to just not even think about lines and special regions, but just manage the species as a whole and not necessarily split into two councils or jurisdictions, but just manage yellowtail snapper as a whole and not Gulf Council managing and South Atlantic managing and FWC managing.

The committee has taken up a number of the species that were brought up at these meetings. The big focus I think of the document that we're going to talk about today or the documents, I should say, are yellowtail snapper, mutton snapper, and then groupers.

There are some pretty big discrepancies in grouper regulations between the two councils and FWC and there are some unique issues to yellowtail snapper and mutton snapper that I will talk about as well.

With yellowtail snapper, some of the concerns that we've heard is that this stock should be managed as a single unit. It's one stock and right now in the Atlantic and Gulf we have similar regulations, but we have separate quotas and a few years ago we

ran into a situation where the fishery was going to close I think on the Atlantic side but stay open in the Gulf. This was the commercial fishery and there was a lot of confusion about that.

One of the ideas was to transfer management authority to the state. Changing the fishing year was an option. That potentially could minimize disruption, should there be a quota closure. We have heard suggestions to do a spawning season closure and then we've also heard concerns about the circle hook requirement and yellowtail snapper.

This fishery operates a little bit different than some of the other reef fisheries. We will talk more about that later and so there has been some suggestions to remove that requirement for yellowtail snapper.

For mutton snapper, the big concern that we hear in the Keys is that spawning fish need some protection. The aggregations are fished pretty hard at certain times of the year and so we've heard ideas about a spawning season closure or just lowering bag limits.

Grouper is a big concern down here. The inconsistencies between Atlantic and Gulf federal waters, there is differences in size limits and there is differences in the seasonal closures and then there is also differences in the bag limits that are pretty different and very confusing.

On the Atlantic side, there is a lot of angst about the closure that they have from January through April. That's peak grouper season down here and that closure was put in place originally to protect gag grouper, which is not a highly abundant species down this way. It kind of shifts more to black grouper and so that's been another topic that the committee has been trying to tackle.

This slide basically outlines some of the things that we'll talk about today and so one of which would be delegation. That would be one option to look at for some of these problems and another option could be to set a joint ABC and ACL for some of these species, to eliminate some of the issues where you have one side closing and the other side staying open for a single stock.

Changing recreational bag limits and trip limits for mutton snapper and somehow trying to tackle the shallow-water grouper issues, black grouper in particular, and the circle hook requirements for yellowtail snapper and then setting some uniform accountability measures.

I wanted to just throw this map in here. I think this may be my last slide. This illustrates some of the regions that we'll talk about, that Doug will talk about or Carrie will talk about, when we go through this document.

There is a couple of actions that have areas associated with them. The one that talks about Shark Point is the one that has the red and I think gray hash lines and then the Monroe County line is just north of that and then south of 28 is the yellow and so I just wanted to throw that in there so you have a visual.

One thing we'll have to think about on Thursday and today as well is that the two councils, when they have talked about this separately, have taken different approaches. The South Atlantic has been -- They have been interested in using this document as a vehicle to handle problems that extend beyond South Florida and just broader issues that they see, including some of their shallow water grouper closures not exclusive to South Florida.

The reason why they've kind of taken this approach is if you change something for South Florida, it affects what's going on further north of that, whereas in the Gulf -- I think here the interest has been in keeping the focus on the amendment and solely with South Florida and so at some point we will have to deal with this issue and I don't know if it's here in committee or I'm sure we will talk about it here on Thursday, but just something else to keep on your radar as we're going through this document and I will stop there, because I have probably talked too much as it is. If anybody has any questions, I am sure either I can answer them or Carrie or Doug or council staff that's been working on this process. Thank you.

CHAIRMAN GREENE: Thank you. Any questions? Okay. Seeing none, I guess we will move to the next item, which would be Review of Options Paper, Tab B, Number 4(b), and Dr. Simmons.

REVIEW OF OPTIONS PAPER

DR. SIMMONS: Thank you, Mr. Chairman. Good morning again to everyone and so I am planning to walk through the options paper. What you will notice is the actions and alternatives have not changed from the last time the council reviewed them. At your March meeting, I think Ryan walked you through those actions and alternatives.

We have lots of questions. The IPT has lots of questions about

the actions and alternatives currently drafted in the document. I think Ms. Bademan has provided a nice background bit of information for the committee about where we are currently and so I will just try to tell you some of the differences and the changes we've made in the discussion.

Before I get into that and not to confuse you too much, we do have another tab, Tab B, Number 4(c), that has a proposed restructured actions and alternatives. Now, the South Florida Committee has not seen that, but staff did take it upon themselves to put that together just so that the committees, both the South Atlantic and the Gulf, had something to look at prior to the joint meeting.

This really came out because of the concerns at our last council meeting about some of the overlapping actions that we had, especially for the grouper species, and not being specific on the sectors in the information that we had in there, what sector it was applying to, and potentially not being specific on if it was just off of Monroe County and if we were establishing a certain South Florida area or -- There was a lot of muddy water and so we were just trying to put something down on paper.

If there is anything in there that the committees like or think would be better or bits and pieces that we may be able to replace in the current draft document, that's what that is for, but, again, the South Florida Committee has not had a chance to see that yet.

It is new. There is not the exact same actions and alternatives that are in the current draft options paper. They are similar. We tried to capture what we thought was the goal of the South Florida Committee, but we have removed a lot of the extraneous -- What we felt was extraneous options and alternatives that were outside of the South Florida goals and objectives.

We may be kind of going back and forth between those two documents and hopefully that's not going to be too confusing, but that's why staff has done that and also NOAA GC -- It was Shepherd Grimes that's been participating in our meetings and he has expressed some concern just about structure and the way the document was set up and so, again, this is just a proposal and you may not like any of it, but it's there for you to review and see if there is anything that we can use.

Now I will start walking through Tab B, Number 4(b). As I mentioned, Martha has provided some nice background. Starting on page 2 and 3, we have expanded these tables for regulations.

We have included the shallow-water grouper species that were not there at the last draft that you reviewed.

You can see from these tables the recreational differences in regulations are primarily the bag limits and the closed seasons among the Gulf, the South Atlantic, and the State of Florida waters. Then the commercial, the primary differences are the size limits and those closed seasons for the groupers that Ms. Bademan was talking about with the January to April closures.

The joint council committee has met three times and this is what we have so far is the actions and alternatives in front of you. One of the major changes or decisions that we would like the councils to really talk about and flesh out at this joint meeting on Thursday is delegation and that is delegation of management to Florida FWC for yellowtail snapper, mutton snapper, and recreational black grouper. These three species are primarily caught and landed off the State of Florida.

Staff added some information about delegation. I don't know that Ms. Levy has had a chance to review what we put in there about delegation requirements, but delegation to Florida FWC would require the agreement of them to accept responsibility of management of these species throughout their range or it could be limited to waters off the State of Florida, which is currently what the South Florida Committee is proposing.

Our understanding is that delegation, this authority to the states, would require a three-quarters majority vote of the voting members of each council and more of that is listed in Appendix B of the current draft options paper.

We have updated the purpose and need and it's on page 7. We may want to come back to this after we've gotten into the actions and alternatives a little bit more. Just remind me to do that and so let's start on page 8 with Action 1.

This action would partially delegate commercial and/or recreational management of yellowtail snapper to the State of Florida for federal waters adjacent to the State of Florida. Alternative 1 is no action, do not delegate. Alternative 2 would determine specific recreational management items for delegation to the State of Florida. Alternative 3 would determine specific commercial management items for delegation to the State of Florida.

This action, this structure, is set up similarly for mutton snapper and for recreational black grouper and so that's the

same similar structure that we have throughout.

The idea with delegation currently, the preference of the South Florida Committee is that the councils would remain responsible for establishing and implementing the acceptable biological catches, the annual catch limits, and the accountability measures and that the existing permit requirements in the Gulf and the South Atlantic would remain in effect.

The green that you see under Alternative 1, the SAFMC, is the South Atlantic Council's Snapper Grouper AP recommendation. They did get a chance to review this document and I think it was after the March meeting. Our Reef Fish AP looked at this document last July. It was in a really early stage and so I did not include their recommendations.

We can circulate their recommendations to the council if you would like, but they selected similar no action on many of these actions and alternatives before you. They didn't think a lot of the current actions, management actions, were necessary, but, in all fairness, they have not seen this revised options paper. We thought it wasn't quite ready yet and we were repopulating our Reef Fish AP at the time and so that's why the Gulf AP hasn't reviewed it again.

As you can see, we have lots of yellow here. We have lots of questions about, for example, under Option 2d and 3d what minor modifications to existing allowable gear means. Specifically, what waters we're referring to and if we want to establish a South Florida area. With that, I will stop and see if there's some questions about Action 1.

DR. ROY CRABTREE: It says that councils remain responsible for ACLs and accountability measures and that means if there was a quota closure that would not be delegated?

DR. SIMMONS: I think the intent was that the councils would set those and then the State of Florida would establish management measures that would ensure that we stay within those ACLs and those quotas is my understanding.

DR. CRABTREE: But if the quota was hit anyway, would the State of Florida then close the fishery in state and federal waters? Would the closure authority be delegated?

MS. BADEMAN: I don't think that's part of this.

DR. CRABTREE: So we could still end up in a situation where

federal waters are closed and state waters remain open?

MS. BADEMAN: On the commercial side, we are set up so that doesn't happen. On recreational, I guess that's a potential. I think our goal would be to set up the regulations though so that we don't get in a situation where we have quota closures, but for commercial, we require the reef fish and snapper grouper permits to fish that fishery in state waters and we require them to abide by federal closures.

MR. JOHN SANCHEZ: I am not on the Reef Fish Committee, but I'm part of the South Florida working group and so I don't know where that puts me in this and so I don't know, but this thing is evolving very slowly and it kind of makes sense that -- At least I would support maybe delegation of the recreational fishery for mutton, yellowtail, and black grouper to the state and then, because of the permits and such, let the existing federal management prevail for commercial and that would be my two-cents.

MR. WILLIAMS: Johnny or Carrie, are you looking for motions as we go along or do you want to go through the whole thing and then come back or do you care?

DR. SIMMONS: I think it would be helpful to have motions as we go along and to have something in front of us at the joint meeting on Thursday. I think that would be a good idea. If we want to go back and forth -- We might not be there yet as far as if there's anything you want to use in the other proposed actions, but I can go through that if there is something in there that you wanted to use.

MR. WILLIAMS: Are you through with your presentation on Action 1 then and could I proffer a motion?

CHAIRMAN GREENE: Absolutely.

MR. WILLIAMS: I would move then, given Mr. Sanchez's comments, that the committee approve Alternatives 2a, 2b, and 2c, which are size limits, seasons, and bag limits for yellowtail snapper, to delegate those to the State of Florida.

CHAIRMAN GREENE: We have a motion on the floor and is there a second?

MS. BADEMAN: You are making these preferred alternatives, right?

MR. WILLIAMS: Yes, preferred alternatives.

CHAIRMAN GREENE: Mr. Williams, is the motion correct on the board? Okay. Any further discussion?

MR. SANCHEZ: Just for purposes of discussion, we do have the I guess newly created Tab B, Number 4(c) and I don't know if we should -- I don't want to add to the confusion, but kind of that seems like a cleaned-up version of this and I don't know if we should address that at the same time, just to keep this thing going. If we're going to present this to the South Atlantic Council tomorrow, at least they will know where we stand on this newly created document as well.

MS. BADEMAN: I have an idea about that. I don't know if you have looked at the restructured document, but basically it lumps yellowtail, mutton, and black together for the delegation. My suggestion I think would be maybe for us to get through the delegation actions on those individually first and then if we come to the same decision on all of them, then maybe move forward with the lumped together version, but if we end up in different places on different species, then that option wouldn't work, but if it does, then yes, let's lump it together. Does that make sense?

MR. CORKY PERRET: The action that's taken today won't go before our full council and so will these actions be presented as committee recommendations tomorrow or how do we handle that?

DR. SIMMONS: Yes, the plan is to put these in a report and it may be a slightly different format than our committee reports with what the South Atlantic Committee has made motions on regarding this document and then on Thursday we are going to sit down and go through it. Both councils will be at the table on Thursday.

MR. PERRET: But with today's modifications by committee.

DR. SIMMONS: With those recommendations in the committee report or decision document on Thursday, yes, from both councils, from both committees.

MR. PERRET: Once you get finished this one, I want to make a suggestion on your purpose and need, which you asked for input on. I thought we were going to go through the document and start, but I've got something I want to comment on relative to the purpose and need.

CHAIRMAN GREENE: Thank you. **We have a motion on the floor and is there any opposition to the motion? Seeing none, the motion carries.** Moving on to the next item, but first Mr. Sanchez.

MR. SANCHEZ: Just a quick question. So I understand what we're I guess walking into tomorrow, are they, the South Atlantic Council, going to see this today or tomorrow and have the same exercise that we're kind of going through right now, so to speak, so that when we do get together we are kind of at least on the same page in terms of having reviewed this stuff?

DR. SIMMONS: Yes, that is the plan. I am planning to go over after lunch and go to their Executive Committee and try to help Mr. Waugh go through this and try to get some recommendations that are similar from their council so that we're on the same page. Our joint session is on Thursday.

EXECUTIVE DIRECTOR DOUG GREGORY: If you look at the bottom of each action and in this case, on the top of page 10 are three council action items that are highlighted that are close to the, I guess, questions that are being asked of the South Atlantic Council. You can see where I think they were going and these are not identical to the questions that are being asked of the South Atlantic Council, but they are close.

MS. BADEMAN: I was just going to address maybe some of those or try to get the conversation started on those IPT comments and so the first one is about whether or not, if delegation occurs for this species, the State of Florida would have to submit a management plan. Can you talk about that, Mara, if that's a requirement or if it just -- How would that work?

MS. MARA LEVY: It seems to me if you delegated then Florida does what they want as long as it's consistent with the FMP. When we were talking about delegation in Amendment 39, the whole idea was the states do what they want as long as it's consistent with the FMP and if it's not consistent, the statute provides that you get notice that you're not consistent anymore and then the delegation ends up being rescinded if you don't become consistent, but I don't think that you would want to have to submit a plan. That seems to be contrary to the idea of delegation.

MR. DAVID WALKER: I was just going to ask Martha if you've had any public comment on this yet.

MS. BADEMAN: We've had a lot and so we have -- I think we've heard probably both. Well, actually, probably -- This was just

a recreational action that we talked about and I think there's a fair amount of support for doing some delegation here for yellowtail snapper and so I know there's some on the commercial side that were maybe less supportive of delegation for various reasons, but from what we've heard, I think there is support for this from the public. I am hoping that we will have some comment on it at some point in public comment, but yes.

MR. WALKER: That's just what I was -- I was interested in hearing public comment from the Gulf.

MR. WILLIAMS: I just want to note I did not move Alternative 3, delegation of the commercial fishery. Mr. Kelly has already spoken against this and my belief is that there will probably be five votes against delegating commercial to the State of Florida and I really just don't want to make staff go through all the analyses on it if it's not going anywhere and I don't think it's going to go anywhere. That is why I moved Alternative 2. I believe we can muster the necessary votes to get delegation of the recreational fishery and so that's it.

MS. BADEMAN: I will keep working down the IPT list here. The second note is about clarifying if this would pertain to waters adjacent to the State of Florida or throughout the Gulf and South Atlantic jurisdictions.

I think the committee's intent was for this to be just off of Florida and so adjacent to the State of Florida. I think that's where we were going with that and then the Options 2d and 3d about minor modifications to existing allowable gear, I think the purpose of that was to deal with the circle hook issue and so I guess if we address that elsewhere in the document that we could definitely remove those options and it probably would be worth clarifying them if we do keep them in here.

MR. WILLIAMS: I would move that Options 2d and 3d be moved to the Considered but Rejected.

CHAIRMAN GREENE: We have a motion coming up on the board and it has been seconded. Let's get the motion up and make sure it's correct the way you want it, Mr. Williams.

MR. WILLIAMS: It's 2d and 3d. Yes, that's correct.

CHAIRMAN GREENE: We have a motion on the floor and it's been seconded. Is there any further discussion from anybody? Okay. **Any opposition to the motion on the board? I didn't see any and the motion carries.** That sends us back to Mr. Williams.

MR. WILLIAMS: Following up on the IPT note here, the second note, I would move that these actions pertain to the waters adjacent to the State of Florida, that the delegation apply to the waters adjacent to the State of Florida.

CHAIRMAN GREENE: We have a motion going up on the board and it's been seconded by Ms. Bademan. Mr. Williams, is that your motion?

MR. WILLIAMS: Yes.

CHAIRMAN GREENE: Okay. Any discussion?

DR. SIMMONS: Just so staff is crystal clear here, there are very low landings, recreational landings, it looks like off of South Carolina and so any bag limit or size limit changes the State of Florida makes, those potentially would not apply and the South Atlantic Council could change those bag limits and size limits for yellowtail snapper in their FMP and that would -- The State of Florida's regulations would not apply to South Carolina, correct?

MR. WILLIAMS: That is my intent, yes.

MS. BADEMAN: I think that makes sense. It would be kind of weird for Florida to be regulating what's going on off of the other states.

CHAIRMAN GREENE: Okay. Any further discussion?

MR. DOUG BOYD: Just a question about the word "adjacent". What does that mean in this context? Does that mean that Alabama is adjacent? I am not arguing with it, but I am just concerned about the definition. Do we need to be a little more specific about what that means? Martha can address that, I guess.

MS. BADEMAN: Well, I mean I think what we're getting at here is federal waters adjacent to the State of Florida and so off of state waters and definitely not Alabama.

CHAIRMAN GREENE: Okay. Everybody is good? Okay. That gets us through the second one and now we're down to the third IPT note.

MS. BADEMAN: I just talked to Carrie about this and suggested to remove the language regarding the first IPT note about submitting a management plan if delegation occurs. **I would move to remove language from the discussion document pertaining to**

the document and the discussion. Is that --

DR. SIMMONS: Sorry. Right now, the South Atlantic Council -- You know they do a lot of things by motion whereas you guys can just give staff direction and so I think it would be helpful just to have a motion because the South Florida Committee put this in there at the last meeting that it's not necessary, according to the National Marine Fisheries Service, for the State of Florida to do this under delegation, just so we're clear it's going to be removed from the discussion of the document.

So we would be removing from the discussion the requirement for the State of Florida to submit a management plan for yellowtail snapper.

MS. BADEMAN: Because we're going to talk about this again with the other species, should we just say about delegation and not specifically for yellowtail snapper? Carrie, when she teed up that motion, she made it specifically about yellowtail snapper. We're going to talk about delegation again for two other species and so my suggestion would be to just make it general and just remove the discussion of the management plans from the document that pertain to delegation.

CHAIRMAN GREENE: We have a motion going up on the board and let's make sure we get it as you wish.

EXECUTIVE DIRECTOR GREGORY: I have a question. Do we really need a motion on that if General Counsel has told us that it didn't really make sense? That seems to be good enough guidance for the IPT to not work on that anymore, but a motion is fine.

DR. SIMMONS: I am just trying to be complete because of the differences in the way the councils operate and the fact that the South Florida Committee put that in there.

MS. BADEMAN: Whatever makes it go easier on Thursday. **I will suggest though that after "remove the discussion of the" to stick "State of Florida submitting management plans" and so it would be "remove the discussion of the State of Florida submitting management plans".** I think that makes it a little bit more clear.

CHAIRMAN GREENE: Ms. Bademan, is that your motion? Is it correct?

MS. BADEMAN: Yes.

CHAIRMAN GREENE: Do we have a second for this motion?

MR. WILLIAMS: Second.

CHAIRMAN GREENE: It's seconded by Mr. Williams. Any further discussion? **Seeing none, any objection to this motion? The motion carries.** That gets us through that and so I guess we'll go back to Dr. Simmons at this point.

DR. SIMMONS: Thank you, Mr. Chair. We will go to Action 2 and it starts on page 11.

EXECUTIVE DIRECTOR GREGORY: Excuse me, Carrie, but shouldn't they at least look at or possibly address those council actions that are similar to the ones the South Atlantic Council is going to be reviewing today, the ones on page 10 there?

DR. SIMMONS: I think we did.

EXECUTIVE DIRECTOR GREGORY: Okay.

DR. SIMMONS: If there is something that you -- They picked a preferred and they removed 2d and 3d. Action 2 would establish and consolidate the acceptable biological catches and annual catch limits for yellowtail snapper.

Alternative 1 is the no action alternative. It would maintain the current commercial and recreational annual catch limits for yellowtail snapper based on the South Atlantic Council's fishery management plan and the total or stock ACL for yellowtail snapper in the Gulf, based on the Gulf's management plan.

Alternative 2 would manage yellowtail snapper as a single unit with an overall multijurisdictional ABC and annual catch limit instead of apportioning that ABC like we do currently with the South Atlantic Council, based on those historical landings.

Alternative 3 would use both councils' agreed upon ABC for yellowtail snapper and then allocate commercial and recreational ACLs and so this would be another big decision for the Gulf Council, because we don't currently have sector ACLs established for yellowtail snapper.

Then there is a series of options as far as establishing those sector allocations or ACLs based on historical landings. Option a would use the formula of the ratio of 50 percent of the landings from 1993 to 2008 and 50 percent of the landings from

2009 to 2013. Option 3b would base sector allocations on average landings from 2009 to 2013 and Option c would base sector allocations on average landings from 2004 to 2013.

When the Joint South Florida Committee was talking about this, the idea was that this Action 2 could stand alone or it could be combined with delegation and so you can go with delegation and choose not to establish sector ACLs and manage it overall, but since we have -- It looks like we're going towards delegating just recreational management measures and I think we would have to think a little bit more about exactly how that would work and we may need to establish sector ACLs now and so with that, I will stop.

MR. WILLIAMS: A question for Carrie. If we approve Alternative 2, then we also need to approve some portion of Alternative 3, correct?

DR. SIMMONS: I think if we're looking at delegating just recreational management measures, I think we would need to move forward with that and go ahead and set those alternatives up that way, yes.

MR. WILLIAMS: I would like to get to the point too where we have one commercial quota on yellowtail snapper, so that we don't run into the situation that we almost ran into where one council was closing and the other council was going to stay open. Whatever one of these would do that or two of these -- I was thinking Alternatives 2 and maybe 3a we could get there, but that's where I would like to end up.

CHAIRMAN GREENE: Okay. Mr. Gregory, did you have a comment to that point?

EXECUTIVE DIRECTOR GREGORY: That will work and we talked about -- I am confused how the South Atlantic operates now, but maybe Roy Crabtree could help us. We talked about combining ACLs so that the fishery did not close until the overall ACL from both councils combined would close and I don't know if that would be just commercial ACL or commercial and recreational.

For instance, would the councils want to say the recreational has met their sector allocation, but the commercial guys have not and would we not close the recreational sector until the overall ACL is met? There is two different ways of doing that. You could look at it as a combined commercial ACL and a combined recreational ACL or a combined overall ACL, where nothing closes until the overall is closed.

I don't know what the South Atlantic Council does now. At one point in the discussion I think Gregg said they have sector allocations only for data collection purposes, but I think in the past the commercial guys were being closed but not the recreational.

MS. BADEMAN: Yes, that's right. I think they do have sector-specific closures, because when this happened, it was going to be for commercial only and recreational I guess had not bumped up against their catch limit and so think you're right. I think you could do it either way, but that seems to be the way that they're operating now.

DR. CRABTREE: We have separate ACLs for the recreational and commercial fishery and I think, although I am not positive, the commercial ACL is if they catch the ACL that you close them. I think the recreational is different and that if they go over their ACL you do something the next year, shorten the season or something like that, in order to try to prevent it from going over again.

If you go to a single ACL that includes commercial and recreational, you are going to have to change the accountability measures. Otherwise, you could hit the single ACL and close the commercial guys and the recreational just keep fishing, even though they're already over. I think that's going to be a problem. It seems to me with the way we're going that you're going to need to have separate ACLs for the two commercial and recreational fisheries to make this work.

MR. WILLIAMS: In that case, we wouldn't want Alternative 2 and we would want something in Alternative 3 which provides for separate ACLs. Is that right, Carrie or Martha?

DR. SIMMONS: I think the way the South Florida Committee talked about this is selecting both Alternative 2 and 3 and so 3 would apportion the sector ACLs, but then 2 would add those recreational ACLs and the commercial ACLs back together for both the Gulf and South Atlantic and so you have a combined recreational and commercial ACL. I mean -- I'm sorry. Combined Gulf and South Atlantic recreational ACL and combined -- You know what I mean. Gulf and South Atlantic commercial ACL.

MR. WILLIAMS: I would be prepared to offer a motion if the discussion is over. **I would move that we approve -- In Action 2 that we approve Alternative 2 and Alternative 3a.**

CHAIRMAN GREENE: Ms. Bademan, are you seconding? Okay. Let's make sure we get the motion on the board correct.

MR. WILLIAMS: I guess it would be preferred alternative and that our preferred alternative be Alternative 2 and Alternative 3a.

MS. BADEMAN: I am going to support this motion. I think this solves the commercial quota problem that we had a few years ago or potentially had, I think, and then with Alternative 2 and then Alternative 3 would give us a means to do separate accountability measures and separate closures for the respective sectors and so I am comfortable with this.

DR. CRABTREE: I am kind of confused, I guess, now. My read is Alternative 2 says you're going to have a single ACL that combines the recreational catches and the commercial and so it's one combined ACL, but Alternative 3a says you're going to have separate ACLs based on that allocation. It doesn't seem to me that you combine 2 with 3. It seems they are different things, to me.

MR. WILLIAMS: The context of that I believe was that we were going to combine the Gulf and the South Atlantic into an overall -- Each council was going to give some ACL in order to provide one overall ACL and then split between commercial and recreational. I see how you read it and I read it that way initially too, but I think the intent is simply that each council is going to donate some to an overall ACL which will then be split recreationally and commercially.

DR. CRABTREE: Isn't that what Alternative 3 does? It sets up a single -- It allocates it and then you have an ACL for the recreational and an ACL for the commercial that is for both the Gulf and the South Atlantic.

MS. BADEMAN: I think I see what Roy is saying and would it help in Alternative 2 -- To me, it seems that Alternative 2 gives you the single ABC and then I guess, the way it's written now, an ACL also and then Alternative 3 splits that ABC into your sector ACLs. I mean would it help in Alternative 2 to just make it pertain to the ABC, a single ABC, and not a single ACL? I am trying to figure this out.

EXECUTIVE DIRECTOR GREGORY: I think we need to recall that there has only been three meetings of the joint council committees and this is a rough options paper, in other words. The discussion here clarifies the direction people are thinking

and that's what we need. That's what we want from the councils.

The fact that Alternative 2 can be read one way and not the other way is not unexpected, but with the discussion, we have got clarification that the intent is to have a multijurisdictional commercial ACL and a multijurisdictional recreational ACL and so this is helpful, but don't get hung up on anything that's unclear. We need to clarify it. That's the purpose of this meeting.

MR. STEVEN ATRAN: I think a minor change in the wording of Alternatives 2 and 3 might clarify the intent. On Alternative 2, if you were to insert the word "stock" before annual catch limit, so it says "the combined multijurisdictional allowable biological catch and stock annual catch limit", and then in Alternative 3, add the word "sector" in front of ACL so it would say "allocate the commercial and recreational sector ACLs".

The National Standard Guidelines recognize both a stock-wide ACL and individual sector ACLs and that would clarify what you are talking about, although I think Dr. Crabtree is correct. My reading on this is that with Alternative 3 it's not necessary to have Alternative 2 as well.

MR. WILLIAMS: Given that advice of Dr. Crabtree and Mr. Atran, I would ask if the seconder would agree to just remove Alternative 2 and the motion only address approval of 3a as the preferred alternative.

MS. LEVY: I understand that you are trying to sort of frame what the committee thinks is the best course of action, but I would just ask you to consider whether we're at the point that the committee should actually be picking preferred alternatives, meaning we have sort of an options paper and we're trying to figure out the structure and we're trying to figure out what alternatives and actions are supposed to be in there and we are not quite sure what some of the alternatives mean at this point.

I mean I know you want to present something to the full council and maybe the way to do it is say this is how we're thinking we want to go with the delegation and having separate ACLs for the sectors, but in terms of picking particular preferreds, it just seems a little premature.

CHAIRMAN GREENE: Ms. Levy, yesterday when we were in Data Collection, we were trying to do the same thing and we were looking at potential preferreds and does that help you with what we're trying to do?

MS. LEVY: I mean you can frame it that way. I am just a little bit concerned when we're talking about what things mean and we don't have a clear idea about what the alternatives mean and we don't really have an analysis about what these allocations mean that you're going down the path of saying this is our preferred alternative.

If you want to frame it some other way in the discussion that just shows what your intent is, and I don't know if this is helping council staff decide how this document should be structured and maybe it is, but I just wanted to put that out there.

CHAIRMAN GREENE: I mean we could potential preferred endorsement. I am just trying to -- I think the intent is we're just trying to show what direction we're going and I think people are kind of struggling with how we do that. Anybody want to weigh in?

DR. CRABTREE: I mean it seems to me -- I am not quite sure why we need to show which way we're going on a preferred here. This is an allocation thing and so there is that formula, but why is that the -- Why should that be the allocation? Why is that fair and equitable?

I look at the table later on and we're talking about 7 percent, depending on which one -- Hell, we would argue for three or four years about 7 percent of the red snapper fishery and here we're -- I kind of am with Mara. We are making an allocation decision and I am not sure why -- Is that currently the South Atlantic Council's allocation or what is their allocation, because they already have one. I mean if we just wanted to endorse the South Atlantic Council's allocation and apply it across, that would be one thing, but it's not clear to me if one of these is actually the South Atlantic.

EXECUTIVE DIRECTOR GREGORY: First off, it's important to get direction, because let's say the two councils this week decide they want to delegate recreational yellowtail, mutton, and black grouper to the State of Florida.

Then we can take out other actions that are in here related to mutton snapper and we can just leave it up to the State of Florida to decide what to do on the recreational side and so it is important to get some direction there.

The allocation formula, the South Atlantic Council had an

allocation formula that was -- Say it had a ten-year period and 50 percent of the ten-year period and then 50 percent of the last four years of that same ten-year period and so staff at one point pointed out that was doubling counting those last four years.

At the joint committee meeting, the South Atlantic Council people said yes, we really don't want to do that and so they decided to divide the formula so it's 50 percent of the last say six -- The previous six years and 50 percent of the last four years, so you're not double counting years. The formula, the 50 percent, if you want to call it a Bow-Tie Formula, is different here than what the South Atlantic currently has, but this new formula so far has the endorsement of the South Atlantic Council and that joint committee, since there has been no objections to it from the South Atlantic Council and they have looked at this document more than we have.

MR. WALKER: I am not really prepared to vote on this in support of this. I would like to hear more public input and I don't want to get the cart ahead of the horse here on this.

CHAIRMAN GREENE: Mr. Williams, did you have something?

MR. WILLIAMS: Under what Dr. Crabtree has suggested, we just -- We don't want to make any -- You are suggesting that we just accept this as is and make no changes and go to the South Atlantic with that, but we don't want to add any new alternatives or delete any alternatives and just leave the rest of it as is?

DR. CRABTREE: That's up to you if you want to add new alternatives or change the alternatives. My concern is about choosing the preferred, because I can't really tell -- I mean the way this is structured when you look at the no action, status quo, it doesn't even say what the current allocation is in the South Atlantic and so we're choosing a new allocation, but I can't tell how different what we're choosing is from what's currently on the book for the South Atlantic Council.

I heard what Doug said about the formula, but that doesn't tell me how much we're actually changing what their allocation is and so my concern is just selecting a preferred at this point without really knowing what we're changing from.

MR. WILLIAMS: Mr. Chairman, I would like to withdraw my motion, if the seconder would agree to it.

CHAIRMAN GREENE: The seconder agrees and the motion has been withdrawn. Now, I think we had one previous that we had selected a preferred and is that correct? I would have to look at the previous motions. Okay. Just making sure.

MS. BADEMAN: Before we leave Action 2 -- **I guess I need to do this in a motion, but based on the IPT note, I would move that we clarify that this action pertains to the whole Gulf and South Atlantic Council jurisdictions.** If I get a second, I can explain that.

MR. WILLIAMS: Second.

CHAIRMAN GREENE: We have a motion going on the board. It's been seconded by Mr. Williams. Ms. Bademan, make sure it's correct.

MS. BADEMAN: Action 2 would be the action there. The idea here is this is one stock of fish that just happens to span two councils. The vast majority of it is in Florida, but there are some peppering of yellowtail snapper in other states and I think it just makes sense to just do this as one lump stock ABC and ACL, if that's the way we want to go, rather than trying to split it out between states. That is where I am coming from.

CHAIRMAN GREENE: We have a motion on the floor and it's been seconded and we've had some discussion. Any further discussion? **Seeing no more discussion, is there any opposition to the motion on the floor? Seeing none, the motion carries.**

EXECUTIVE DIRECTOR GREGORY: The South Atlantic Council Committee is going to be addressing the basic question of do you want to keep Action 2 in the document or do you want to move it to Considered and Rejected. I think if we address that that we'll be having a motion similar to what the South Atlantic is looking at today. I am looking at their decision document and trying to see where we can come out to where they're working on.

MS. BADEMAN: I mean I think we need to keep considering this. I mean it makes a lot of sense. I wouldn't want to rule this out at this point at least. You know maybe this isn't the road we end up going down, but I don't want to remove it. That's just my two-cents.

CHAIRMAN GREENE: Any other committee members have an opinion?

MR. WILLIAMS: I would move then, given Doug's comments, I would move that we keep Action 2 in the document.

EXECUTIVE DIRECTOR GREGORY: The exact wording in the South Atlantic Council's decision document is consider approving Action 2 alternatives for detailed analysis after staff receives IPT requested clarifications. This is where the two councils operate differently and that's why some of this seems odd to you all, because we don't do things that way.

The original purpose or the original intent was for the two council committees to address these items and come together and combine their motions to see where there was agreement or disagreement.

CHAIRMAN GREENE: Thank you. We have a motion and it fails for lack of a second. With that, we will go back to Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. Action 3 starts on page 15. This is partial delegation of commercial and recreational management of mutton snapper to the State of Florida. Again, it's in federal waters adjacent to the State of Florida and so this is the exact same structure that you just reviewed in Action 1 for yellowtail snapper.

CHAIRMAN GREENE: Okay. Any discussion about mutton snapper?

MR. WILLIAMS: Given -- I am trying to figure out -- Given Dr. Crabtree's earlier comments that we're not seeking preferreds here, I mean I want to -- I guess the thing to do then would probably be for me to make a motion that we move Alternative 3 to Considered but Rejected. Is that appropriate? There is nobody here to give -- Carrie, do you --

DR. SIMMONS: If that's the direction the committee feels they want to go.

MR. WILLIAMS: All right. That is my motion.

MR. DALE DIAZ: Roy, at the end of the day, I don't know how all of this is going to work out, but we are going to have some public testimony tomorrow and I was kind of hoping that when we got public testimony that we would have a few commercial fishermen, and we are in south Florida, give us some testimony and see what they're thinking on these different species.

At the end of the day, I might could support your motion, but right now, I would prefer to leave it in there until after we hear public testimony.

CHAIRMAN GREENE: Fair enough. Go ahead, Ms. Bademan.

MS. BADEMAN: I don't know if this motion has a second, but I agree with Dale.

CHAIRMAN GREENE: Okay. There is a motion on the floor and seeing no second, it fails. We will move on. Go ahead, Mr. Williams.

MR. WILLIAMS: Then I've got one other motion and that would be to move Options 2d and 3d to Considered but Rejected. This is what we did with yellowtail snapper.

CHAIRMAN GREENE: We have a motion going on the board and it's been seconded by Ms. Bademan.

MR. WILLIAMS: 2d and 3d to Considered but Rejected.

CHAIRMAN GREENE: Mr. Williams, is that your motion?

MR. WILLIAMS: Yes.

CHAIRMAN GREENE: What action was it?

MR. WILLIAMS: Action 3.

CHAIRMAN GREENE: Okay. Any further discussion about this particular item? **Seeing no more discussion, any opposition to the motion? Seeing none, the motion carries.** Dr. Simmons.

MR. WILLIAMS: Before we go on, do we need to go through the rest of these IPT notes again or is that understood from what we did in the first one that they're going to pertain here too?

DR. SIMMONS: I think just the clarification on the waters. Is this throughout the Gulf and South Atlantic Councils' jurisdictions or just off the State of Florida? If we could get some clarification on that and then while I have the mic, I just want to point out that I know this document needs a lot of work, but because we have nested actions in here and if the councils decide to delegate to the State of Florida and it's all these recreational management measures, later on in the document, when we get to the mutton snapper recreational management measures and the closed season grouper closures and bag limits and size limits, those -- We may not need to consider those anymore if we're going to delegate those species to the State of Florida.

I think that's what staff is looking to do. We have thirteen actions in here right now and I know they need a lot of work,

but maybe some of this other stuff would fall out and I think that's why it's a bit premature, but we are looking for some direction to take to the joint meeting and also to let staff know what potentially could be removed as we move forward.

CHAIRMAN GREENE: Thank you. Is there any further comments? That's a good point.

MR. WILLIAMS: I think we still have to address the second IPT note and clarify that our intention is that this action apply to the waters adjacent to the State of Florida.

MS. BADEMAN: Do we need a motion for that and do that? **I will make a motion that Action 3 apply to waters adjacent to the State of Florida.**

MR. WILLIAMS: Second.

CHAIRMAN GREENE: We have a motion and a second. I know there was some discussion earlier about adjacent from Mr. Boyd and so we will try to make sure we get it worded correctly. Mr. Atran, did you have anything?

MR. ATRAN: I am not sure if it was this equivalent motion from Action 1 or not, but I have in my notes that it was the understanding that the previous action would apply to all three species.

MS. BADEMAN: I think that was the one about the management plans.

CHAIRMAN GREENE: Okay. I think staff has got it worked out now. We have a motion on the board and is it correct as written? If the maker of the motion is good with it, the seconder is fine and is there any further discussion about this topic? **Is there any opposition to the motion? Seeing none, the motion carries.** Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. Action 4 starts on page 18 and this, again, is the same structure we just reviewed for yellowtail snapper and the same alternatives and even the sector ACLs, the years that are going to be used, and the methods are all the same as currently drafted.

MS. BADEMAN: Based on that, I would make a motion that Action 4 apply throughout the Gulf and South Atlantic Council jurisdictions.

MR. WILLIAMS: Second.

CHAIRMAN GREENE: We have a motion going on the board and it's been seconded by Mr. Williams. Ms. Bademan, your motion on the board is correct?

MS. BADEMAN: Yes.

CHAIRMAN GREENE: Any further discussion? **Seeing none, any opposition to this motion? The motion carries.** Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. Action 5 starts on page 21 to modify mutton snapper recreational bag limits in the Gulf and South Atlantic Council. This action came about, as Ms. Bademan mentioned, because the public had expressed concerns regarding fishing effort on the spawning aggregations.

I think later on we'll be getting some information about the mutton snapper stock assessment and some recommendations from our SSC and I think we will be looking at -- In talking to Mr. Atran, we're going to be looking at reducing our catch levels, I think, for mutton snapper in the next three years and so despite the fact that it is a healthy stock and it's not overfished, I think we are still looking at reduced catch levels.

Recent landings from 2011 to 2013 revealed really that there are very low recreational landings in the Gulf of Mexico. There were only about seventy-two trips in the Gulf that landed mutton snapper and so the analysis in this action really pertains primarily to the South Atlantic Council and there is some new information in the document from the last time that you reviewed it regarding that and so we'll start with Alternative 1, no action, mutton snapper is part of the aggregate ten snapper bag limit in the Gulf of Mexico, the South Atlantic, and the State of Florida. Table 9 shows the species composition of those aggregates and they are different between the Gulf and South Atlantic Council.

Alternative 2 would remove mutton snapper from the recreational aggregate bag limit and change the bag limit for mutton snapper during the regular season, which is July to April, and then also there's a change during the spawning season, which is May to June, a step-down in bag limit.

Option 2a would reduce it to ten fish per person per day and not reduce it, but it would establish a ten fish per person per day currently in the regular season, specifically though for mutton snapper, and then reduce it to two during the spawning season.

Option 2b is five fish during the regular season and two fish during the spawning season and four fish in the regular season and then two fish during the spawning season.

The differences between Alternative 2 and Alternative 3 is Alternative 2 would remove mutton snapper from the aggregate and Alternative 3 would retain it within the aggregate bag limit and then there's the same suboptions under each of those.

Really, if you just look at the Option 2a and 3a with the tables, you get a similar percent reduction during the spawning season. I think it's about 20 to 22 percent, but Dr. Larkin is here and he can help me answer any questions. He completed the analysis for this action.

CHAIRMAN GREENE: Thank you. Is there discussion?

DR. CRABTREE: Okay, but if we delegate recreational mutton snapper to Florida, then this whole action would just go. Now let me ask you a hypothetical. I think I heard you say that even though the mutton snapper assessment indicates we're not overfished that we could end up with some reductions in the annual catch limit.

We would do that as a council and set the catch limit, but we've delegated the management measures to Florida and so we wouldn't do anything else. Let's say hypothetically we hit the catch limit one year and that means something has to happen the next year to prevent us from going over and so we could close it, I guess, but we've delegated all that to Florida and so I guess for this to work at that point the council would then ask Florida to make some change to try and reduce the catches and stay within the accountability measure, whether it's closed season or whatever? I am just trying -- Because we have never done this before and I am trying to think through how it would work.

I guess at that point we would notify Florida that we went over the catch limit and Florida needs to take actions to reduce the harvest by this amount and I guess if Florida then said no, we're not going to do that, we would rescind the delegation and do it as a council. Is that kind of how everyone -- Particularly Martha, is that kind of how you see it working, just so we would understand how the accountability measures would work?

MS. BADEMAN: I think that's how -- That's kind of my understanding of how it would work. If we went over in a year

one thing that I guess would be a positive in delegation is our commission can change the rules a lot more quickly than we could through the council process and so if we did need to make a big change, we could do it relatively quickly, in a meeting or two at the state level. Yes, I think that would seem appropriate if you guys sent us a letter notifying us in some way that we need to make some changes.

CHAIRMAN GREENE: Thank you. Any further discussion?

MR. SANCHEZ: I just wanted to mention it and I've said this before, but in speaking with a lot of the local fishermen, particularly here in Key West, they have mentioned that they perceive mutton snapper to be compromised and they've seen reduced size in the fish as opposed to historical catches and they, even though the assessment says that it's maybe not warranted and not in jeopardy, they are asking for us to be proactive in this and get ahead of this and saying that they do need some help and there is no reason to have a ten fish bag limit during the spawn, where a boat with six guys can come back to the dock, in some instances repeatedly, with sixty fish. It's just excessive and it's needless.

They have mentioned to me on more than one occasion that they would like to see something more akin to a four or five fish bag limit and not a closure during the spawn, because it would impact the business, but definitely a reduction in bag during the spawn to something like two fish. Like a four and two I think they would applaud that effort, for the most part, the people who are seeing this fishery diminish.

CHAIRMAN GREENE: Thank you. Any further discussion? Okay and seeing none, Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. On to Action 6, modify the mutton snapper commercial trip limit in the Gulf and South Atlantic, this starts on page 26. Right now, we have six alternatives and so we would like to try to see if we can whittle these down a little bit.

Alternative 1 is the no action alternative. Alternative 2 would establish a commercial trip for mutton snapper during the regular season, which is July through April in the Gulf of Mexico and South Atlantic. It would be the recreational bag limit and Option 2a is the ten fish per person per day limit and 2b is some higher bag limit or trip limit, which if we leave this in here, staff needs to know what that would be.

Just for your information, we have updated the discussion regarding 2a, the ten fish per person per day. That would be approximately eighty-eight pounds whole weight in the Gulf and eighty-one pounds whole weight in the South Atlantic.

Alternative 3 would be specify commercial trip limit for mutton snapper during the spawning season of May and June in the Gulf and South Atlantic and then it's establishing those same bag limits that we're looking at for the recreational sector of two, five, and ten and then 3d is no bag or trip limit.

Alternative 4 would specify a commercial trip limit for mutton identical to the recreational bag limit during the spawning season in the Gulf of Mexico and I guess assuming whatever we do in Action 5 and then the South Atlantic Council as well, although the South Atlantic currently has a ten mutton snapper per day or ten mutton snapper per trip limit during the spawning season only, whereas the Gulf does not.

Alternatives 5 and 6 look at a gear type trip limit and these were recently added, I think in January, as far as the document goes by the South Florida Committee. This would specify the same similar trip limits as in Alternative 3, but it's by gear type for the hand line sector during the spawning season and so you're looking at two, five and ten or some other trip limit and, again, we need some information there about what that would be.

Then Alternative 6 would specify a commercial trip limit for the longline sector during the spawning season of May and June in the Gulf and South Atlantic Council. Option 6a would be a 500 pound whole weight or 450 pounds gutted weight trip limit and then Option 6b is some other trip limit.

Again, there are some new tables, Table 14 and 15, that shows landings from 2004 to 2013 by gear type for the Gulf and South Atlantic. As you can see, Table 17 shows the estimated increases and decreases that you would get from changing these trip limits.

Commercial landings are highest during the spawning season and it looks like into the month of July as well. In addition, commercial landings of mutton snapper in the South Atlantic are highest then too, despite the ten fish per person per day bag limit currently. With that, I will stop, but there are several IPT questions regarding this action.

CHAIRMAN GREENE: Okay. Staff is looking for a little direction

here.

DR. CRABTREE: Some of this seems to get a little squirrely if we delegate the recreational fishery, for example Alternative 4, where we set the trip limit equal to the recreational bag limit. We just delegated that to Florida and so they are changing that.

Then if we were to select one of these lower trip limits of two or five fish per day and Florida decided to stay where they are, we could have a commercial limit that was actually lower than the recreational trip limit and so there are some weird things that can happen here because one part of the fishery is delegated and not the other and we don't really know what Florida would decide to do with it.

CHAIRMAN GREENE: I guess that's assuming that we do delegate it and I guess if we decide not to delegate it, then we have to have something to fall back on and so I understand where you're coming from. It almost seems like we need to decide if we're going to delegate it or not and then move through it from there, but I am sure glad I didn't have to put this document together. Committee, any direction here? Staff is asking for something to move on and I don't really know which way to lead you.

MR. WILLIAMS: I think Dr. Crabtree made a good point on Alternative 4. If we delegate recreational bag limits to Florida, then Alternative 4 just doesn't make any sense anymore. **I am going to move that Alternative 4 be moved to the Considered but Rejected.**

CHAIRMAN GREENE: We have a motion on the floor and it's going on the board now and it's been seconded by Ms. Bademan.

MS. BADEMAN: On this one, if we end up not delegating and you still wanted to do an option like this, you could just name the same bag limits for commercial and recreational in the action and so no big deal.

CHAIRMAN GREENE: Any other discussion? **Any opposition to the motion on the board? The motion on the board is correct and seeing no opposition, the motion carries.** It seems like we're putting a lot of emphasis that Florida will delegate this stuff and so I certainly understand where we're going here. Okay, Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. There are several options under here that say some other higher trip limit and some other bag limit and could we get some recommendations there or try to

consolidate these even more? I guess the question we have is do we want to limit or establish a commercial trip limit during the regular season and the spawning season? Right now, the South Atlantic Council only has a commercial trip limit and it is that ten mutton snapper per day or ten mutton snapper per trip during the spawning season.

I guess is that an alternative we want to keep in or just consider the spawning season? Staff, if you look at the proposed restructuring, did consolidate or have a proposal here where we just looked at the gear types and it was focused just on the spawning season. That's on page 5 of Tab B, Number 4(c) and so I don't know if there's any way we could consolidate these any more than we already have moving forward.

MR. WALKER: I don't know if John has had any communication, but I would like to hear public testimony on this as well. They have concerns and they know more about their fishery here.

MS. BADEMAN: I am comfortable with that and maybe they can -- Where we do have the some other bag or trip limit, we can get some suggestions there for some reasonable options.

CHAIRMAN GREENE: I agree and as Mr. Sanchez noted about yellowtail, the industry had some ideas and hopefully the industry will come forward with something on mutton snapper as well. Any further discussion?

MR. WILLIAMS: Just a question for Carrie. Carrie, do you recall what fraction of the mutton snapper catch came out of the South Atlantic area of jurisdiction? Was it over 90 percent, do you recall? You don't know? Okay.

MR. ATRAN: I don't know what the actual catches are, but I was just looking at the apportionment and mutton snapper -- The Gulf gets 18 percent of the apportionment.

MS. BADEMAN: Look at page 31.

DR. SIMMONS: I think we've been landing around 200,000 pounds commercially and a couple hundred pounds recreationally annually in the Gulf. It's primarily commercial landings in the Gulf of Mexico.

CHAIRMAN GREENE: Any further discussion? Seeing none, Dr. Simmons.

DR. SIMMONS: Again, this action would pertain to the Gulf and

South Atlantic Councils' jurisdictions or just the State of Florida? There are some landings I think off the Carolinas and maybe Georgia commercially.

CHAIRMAN GREENE: Committee?

MS. BADEMAN: I think the simplest approach is just to apply it to the whole Gulf and South Atlantic. I don't know if any other states have heartburn with that, but it seems to be easier. I can't imagine that they're -- I mean since the majority of landings are Florida and this is a Florida-centric species -- I mean if you happen to encounter them in other states, but I would think it's kind of more of an incidental thing, where they are not going to blow it out one day and just catch a zillion mutton snapper. **With that, I will make a motion to apply Action 6 throughout the Gulf and South Atlantic jurisdictions.**

CHAIRMAN GREENE: We have a motion going on the board and it's been seconded by Mr. Williams. Any further discussion about the motion on the board? **Seeing none, any opposition to the motion? The motion carries.** Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. We will move on to Action 7. This is the partial delegation of recreational management of black grouper to the State of Florida. The South Florida Committee discussed the commercial delegation, but because of the IFQ program in the Gulf of Mexico, it was decided that it would be only reasonable to look at delegation of recreational management for black grouper.

CHAIRMAN GREENE: Any discussion on black grouper? Seeing no discussion, Ms. Bademan.

MS. BADEMAN: To get to some of the IPT concerns here, I will make a motion that Action 7 apply to waters adjacent to the State of Florida.

MR. WILLIAMS: Second.

CHAIRMAN GREENE: We have a motion going on the board and we will make sure we get it correct. It's been seconded by Mr. Williams. I believe the motion is worded correctly. Ms. Bademan, you're fine with that motion? Okay. Any discussion about the motion on the floor? **Seeing none, any opposition to the motion? Seeing none, the motion carries.**

MR. WILLIAMS: I would also move that in Action 7 that Alternative 2d be moved to Considered but Rejected.

MR. DIAZ: Second.

CHAIRMAN GREENE: We have a motion going on the board. It's seconded by Mr. Diaz. I believe the motion is correct. Any discussion? **Seeing no discussion, any opposition to the motion on the board? Seeing none, the motion carries.** Anything on the IPT list? Okay. Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. Again, if you delegate the recreational management for black grouper to the State of Florida, there are some later actions that we could potentially consolidate or could be removed from the document, because I mentioned earlier this document is nested with a lot of the actions. We will go to Action 8 on page 37, establish and consolidate ABCs and ACLs for black grouper.

These are the same actions and alternatives as we looked at in Action 2 for yellowtail snapper and 4 for mutton snapper, except for Option 3a. It wasn't in the others because we have -- In the Gulf, we have a sector apportionment that was established in the Generic Amendment for black grouper and we don't have actual quotas or ACLs based on those apportionments, because black grouper is part of the shallow-water grouper component. It's one of the major species in there that has been assessed.

Because of that, even though we have this difference in alternatives, Option 3a, staff is thinking that this could be very complicated and difficult to move forward with analysis on until we establish those sector-specific ACLs the way it's currently set up, because it is part of that shallow-water grouper aggregate.

CHAIRMAN GREENE: Any discussion on black grouper? Seeing no discussion, I guess we will move on, Dr. Simmons.

DR. SIMMONS: So we will leave it in for now. We may not be able to do that one. We will have to really think about that.

MS. LEVY: Just a question. So right now in the Gulf, we have black grouper part of the other for purposes of the IFQ, right? Is the intent here to somehow tease out what's required for that and then have another recreational allocation? Like how is that going to work? Do you have to remove black grouper from the other shallow-water grouper to do this commercial/recreational allocation to actually delegate? I am just curious. What's the -- Have you all thought about how you're going to do that?

DR. SIMMONS: I think we'll just have to look at historical landings. I guess because of the IFQ program we have a default allocation in the Gulf between recreational and commercial, but because of that program, I am not exactly sure -- We will have to look at some historical landings and essentially pull black grouper out of the recreational shallow-water grouper aggregate. We do have a stock assessment for black grouper.

MS. BADEMAN: I mean we should be able to do that for recreational. We have species-specific landings and we do its own assessment.

CHAIRMAN GREENE: I am sorry, but I didn't hear what you said.

MS. BADEMAN: We should be able to that. I mean we have recreational data specifically on black grouper and it's not like it's aggregated and we do an assessment for black grouper.

CHAIRMAN GREENE: Thank you. Any further discussion? It seems kind of complicated. Okay, Dr. Simmons.

DR. SIMMONS: Thank you. We will go on to Action 9, which is modify shallow-water grouper species compositions and seasonal closures in the Gulf and South Atlantic. These actions -- I think what has happened is there's a lot of stuff that's been added in from the joint committee, but we haven't really had a chance to look at it altogether and I think we have essentially right now two actions together. We have species composition and seasonal closures in one action and so I think we could potentially separate those.

Then the other question staff has is I'm not sure we need to change the species compositions to move forward with this. They are slightly different in the Gulf than they are in the South Atlantic.

At this point, I think it would also be good for us to look at what staff has proposed for some of these actions as far as trying to really get at the objectives of what we thought the South Florida Committee may want to focus on, but I will try to quickly run through these alternatives. Right now, I think they're a little bit confusing, because we're looking at specific areas that are kind of woven into the actions and alternatives, plus we have species composition in some and seasonal closures in others.

Alternative 1 is the no action alternative to retain the existing shallow-water grouper species composition and seasonal

closures in both councils. Alternative 2 would remove the shallow-water grouper closure for all grouper species in the Gulf and South Atlantic Council and Option 2a would be from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida.

Option 2b was throughout each council's jurisdiction. At the last meeting, the Gulf Council suggested moving this alternative or this option to Considered but Rejected, but the South Atlantic Council hasn't done that yet, because it was outside the scope, we thought, of the objectives of this document. That hasn't occurred until the South Atlantic completes that.

Alternative 3 looks at establishing similar or identical regulations for the shallow-water grouper species compositions and it would be for a specific area from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Florida and then you would be adopting the Gulf shallow-water grouper species composition and adopting the South Atlantic shallow-water grouper species composition or specifying a new and identical shallow-water species composition for the Gulf and South Atlantic.

At the IPT meetings, we haven't had a whole lot for this amendment, but this alternative seems fairly impractical, because many of the species the South Atlantic Council has in their shallow-water grouper aggregate the Gulf rarely encounters and I think it was in 2010 and 2011 that we took many of those species out of our FMP, like the coney, graysby, some of those species. This seems difficult and cumbersome as currently drafted.

Alternative 4 would establish identical regulations for shallow-water grouper seasonal closures in the Gulf and South Atlantic from the Dade/Monroe County line on the east coast to Shark Point on the west coast and Option 4a would adopt seasonal closures for the Gulf and South Atlantic using the Gulf seasonal closures, which are February and March, fishing outside of twenty fathoms.

4b would adopt the South Atlantic shallow-water grouper seasonal closures for the Gulf and South Atlantic, which I believe it's that current four-month closure of January through April, and 4c would establish some new seasonal closures for the shallow-water grouper.

Alternative 5 was removed by you guys or as considered outside the scope of South Florida. However, the South Atlantic Council

has not done the same and then Alternative 6 would modify the shallow-water grouper seasonal closure off Monroe County to allow harvest of other shallow-water grouper species and only close harvest of gag.

MR. SANCHEZ: The concerns I've been hearing here is that if gag was the genesis of the shallow-water grouper closure and gag is warranted and requires further protection that we should focus and protect gag uniformly throughout its range, but for an area, perhaps, such as has been kicked around, like Miami/Dade/Shark Point south, get rid of the shallow-water grouper closure, because it's really having a tremendous impact on the charterboat fleet here and recreational fishermen who are closed again on species of grouper that do not seem to be compromised and are accessible and are more available in this more temperate southern climate.

Broomtails, reds, blacks, all of these things and so that's one of the biggest things that was brought up in this South Florida management thing to my attention, was that has had a tremendous, tremendous impact on them economically speaking.

CHAIRMAN GREENE: Any more discussion?

DR. CRABTREE: On the shallow-water grouper closure in the South Atlantic, that was not done just because of gag. There was a gag issue there, but it was done as a spawning aggregation closure for all shallow-water grouper because they aggregate to spawn and we had a lot of testimony from fishermen, and continue to get it, that basically says we shouldn't be fishing on spawning fish and we shouldn't be fishing on spawning aggregations.

There were some issues with gag, but it was broader than that and it was sort of a blanket decision to protect spawning aggregations that the council made and that's why they included all these species in it.

There were some issues with gag and now there have been some issues with red grouper and there were concerns that if we close it to everything except one species or only to one species that you would have a lot of discard issues and those kinds of things, but it's more complicated than to just paint it as a gag measure.

CHAIRMAN GREENE: Thank you. Any further discussion? I know there is a lot of notes going on around the table and I'm trying to give everybody a second.

MR. WILLIAMS: A follow-up to Dr. Crabtree. But, Roy, Monroe County is affected by this gag closure and they really don't catch them down here is what we've heard, right? I mean that's really a difficult --

DR. CRABTREE: That's true, but they catch an awful lot of other grouper species down there and they do aggregate to spawn and there are a lot of aggregation sites that don't have fish anymore and that measure, like I said, a lot of that was to protect spawning aggregations and relieve fishing pressure on it.

Now, at the time that was put in place, it was before the first black grouper assessment was done and so we didn't know what the status of black grouper was, but they catch a number of other grouper species down in South Florida and black grouper do aggregate to spawn and they aggregate during those wintertime months.

CHAIRMAN GREENE: Okay. Good conversation and any more discussion on the closures? Okay. Seeing no more discussion, I guess we'll go back to Dr. Simmons.

DR. SIMMONS: I guess it doesn't have to be at committee, because I know this is a lot to think about, but I mean staff is going to have a really hard time writing up this action as it's currently drafted and so I mean essentially, like I said before, I think this is potentially two actions and if there's anything in that proposed restructured that we could look at that we could use and maybe focus on moving forward -- I mean do we really think we could change the species compositions? Is that something we really want to start tackling and adding species back in or asking the South Atlantic Council to take some of these species out? It seems quite cumbersome and is that really something we want to pursue?

DR. CRABTREE: I do think this action is beyond the scope of this amendment and probably shouldn't have been put in here, because when you start talking about putting species in or out and changing the composition of these species groupings, that is much broader than just a South Florida issue and to some extent -- I mean I know the shallow-water grouper closure was very controversial down in the Keys and yes, we now know that it appears that black grouper are in good shape, but it is a measure that applies throughout the South Atlantic and there are a lot of grouper catches all the way up to North Carolina and I think it's going to be hard to explain to folks why we would get

rid of the closure just off Monroe County and not in other areas of the South Atlantic and so I am not completely convinced any of the stuff in this action ought to be in here, but I do think changing the species composition probably is beyond the scope of this document, but I will leave it up to you guys.

CHAIRMAN GREENE: Okay. Thanks a lot. Any more discussion?

MR. WILLIAMS: Carrie, would you like us to get rid of the species composition alternatives?

DR. SIMMONS: I mean if it's not something the council wants us to look at. We're looking at like -- I think Ryan calculated 130 options or something like that we're supposed to be analyzing for this document and if it's not something that you guys are interested in doing, then yes, we would like you guys to take it out.

CHAIRMAN GREENE: Thank you. That was certainly a whole lot.

MR. WILLIAMS: We don't necessarily have to do it today. We could talk some more and try to work it out before the full council meets on this.

MS. BADEMAN: I think Carrie made some points that maybe we should split this up and I do maybe think we could conference and try to figure something out. It is complicated and it's a lot to take in at once and maybe by the end of the week we can come to a solution between the committee meeting and the full council. I don't know, but we do need to -- I think it is something that we need to address, because this a major hang-up that people down here have.

CHAIRMAN GREENE: I agree. Mr. Sanchez, you're on that committee and do you share the same thoughts as Ms. Bademan does?

MR. SANCHEZ: Yes and I think we're going to drop back and punt and talk about it amongst ourselves a little bit and see if we can't figure a way through this. Right now, this second, I have no idea.

CHAIRMAN GREENE: Fair enough. Okay. Any further discussion? Okay, Dr. Simmons.

DR. SIMMONS: Thank you. Moving on then, we will go to Action 10 on page 46 to modify the black grouper fishery closures and bag limits. Again, black grouper is part of the shallow-water

grouper aggregate that we essentially just talked about in Action 9, yet we kind of have it pulled out here, based on the discussion at the South Florida meetings, and we also have closures and bag limits mixed in again here for this action.

Alternative 1 is do not modify black grouper recreational closures in the Gulf or recreational and commercial closures in the South Atlantic and maintain the current seasonal bag limits in both the Gulf and South Atlantic for black grouper.

Alternative 2 would remove black grouper from the shallow-water closures of the recreational seasons in the Gulf and both the recreational and commercial seasons in the South Atlantic and this alternative is similar to Alternative 4 and 5, but Alternative 4 would remove it from the aggregate and change the seasonal closures in federal waters off of Florida only. That's Alternative 4.

Alternative 5 would do the same, but it would be in federal waters off of Monroe County and that would be for the same seasonal closures.

Alternative 3, going backwards, would establish a recreational season closure for black grouper in the Gulf and South Atlantic with multiple months as options, using similar months that the South Atlantic Council currently has, excluding April.

Alternative 6, you suggested to remove this from the document at the last meeting because you thought it wasn't necessary to remove black grouper from the aggregate grouper bag limits. Alternative 7 would remove black grouper from the South Atlantic aggregate bag limit. They have not done the same.

Alternative 8 would establish a recreational bag limit for black grouper. It could be one fish or two fish or three fish or four fish or apply this bag limit only to the following areas and so you have off of Monroe County, in federal waters off of Florida, or in federal waters of the Gulf and South Atlantic. That, again, was removed or suggested in a motion to be removed by the Gulf Council at the last meeting.

Alternative 9 would modify the commercial seasonal closure for black grouper in the Gulf of Mexico and South Atlantic and they have January, February, and March. This was added in by the South Atlantic Council and I think at the last meeting it wasn't supported by the Gulf.

Again, I think this action is very confusing. I think we're

mixing some things and I think it overlaps with Action 9 and I think staff needs to know, again, what are the objectives here with these actions and what are we trying to achieve and do we want to make these changes to a specific area or region and are these closures only going to apply to the recreational sector? It seems like the South Atlantic Council wants to consider them applying to the commercial sector, even though the Gulf has an IFQ program in place.

CHAIRMAN GREENE: Okay. I am looking for some direction here. Does anybody want to offer up anything? Okay. Seeing no discussion, Dr. Simmons.

DR. SIMMONS: Okay and so everyone is going to think about it and by Thursday staff is going to have something, right, because we can't get this into a public hearing draft for the councils to look at without some direction. I mean some of these alternatives really don't make sense now, right now, what we have in front of everyone and so we will definitely need some guidance by Thursday.

Action 11 would look at harmonizing bag limits and size limits for species in the shallow-water grouper complex in federal waters adjacent to Monroe County, Florida. This was added I think and then modified by the South Atlantic Council at their April meeting.

Alternative 1 is retain the current bag and size limits for species in the shallow-water grouper complex in federal waters adjacent to Monroe County and Alternative 2 is harmonize the bag limits for species in the shallow-water grouper aggregate in federal waters adjacent to Monroe County.

Alternative 3 is harmonize size limits for species included in the shallow-water grouper aggregate in federal waters adjacent to Monroe County. Again, these overlap with what we have in Actions 9 and 10.

I guess staff was really not sure. I mean there are several species and they differ that are in the shallow-water grouper aggregate and so do you just want us to focus on where those bag limits are different and bring back a range of alternatives or do you just want us to focus on where those size limits are different and bring back a range of alternatives?

I mean here is where it might help to look at the proposed restructured actions and alternatives, which would be Action 7 with the bag limits. We focused on recreational, just because

the Gulf Council and the IFQ program in the Gulf.

Action 6 would standardize seasonal closures for black grouper and I guess, in thinking about that, we would certainly need some advice and some feedback moving forward on how you want to handle this action as well.

CHAIRMAN GREENE: Staff is asking for some direction here and it's certainly complicated, but does anybody want to offer up some ideas? We are trying to find something here on the bag limits and size limits and staff is asking for some direction and does anybody want to help out? Okay. Maybe we will get some public --

MR. WILLIAMS: Well, I don't want to remove anything here. Let me ask Carrie what she recommends that we do here, because I don't know what to do.

DR. SIMMONS: I think you could split the action and focus on bag limits, size limits, and closed seasons and then also do you -- I mean as far as the Gulf is concerned, don't we just want to focus on the recreational sector and see where those differences are or if we're delegating to the State of Florida, do we just want to focus on where the differences in the commercial regulations are? But we're not delegating grouper to the State of Florida.

MS. BADEMAN: I mean I think it makes sense to split some of these out and split up the bag limits and closures and I feel like the commercial issues are South Atlantic issues, at least at this point, because we don't have a commercial grouper closure. I would tend to leave that one alone and maybe the South Atlantic has a solution that they're working on when they cover this today. I mean we're going to have to make a decision sooner or later, but if they can come up with something that works for their fishermen, then I don't want to block that by taking that out either and so that's my two-cents.

CHAIRMAN GREENE: Okay. It seems like there is some will to separate out the bag limit for the recreational and the size limit, but not wanting to take any options off the table, but we certainly need to give staff a little direction and I think everybody wants to do that, but it's such a confusing topic.

EXECUTIVE DIRECTOR GREGORY: This is a good point to look at the restructured document and part of the problem here is this action and some of the others are actually combining different actions into one and there is no way, going through the NEPA

process, we're going to be able to do that, because you can't have alternatives that aren't alternatives to one another. We're not saying size limit or bag limit or season. Those are three separate actions and so in the restructured document, we addressed them separately and looked at alternatives for each action, season alternatives, bag limit alternatives, size limit alternatives.

With some guidance from NOAA General Counsel or the Regional Office, as far as trying to alleviate the confusion in South Florida with differing regulations, let's just -- For instance, gag grouper has a twenty-four-inch size limit on the Atlantic side and a twenty-two-inch size limit on the Gulf side.

Currently, a fisherman can go to the Gulf federal waters and catch a twenty-two-inch fish and bring it back to land and transit state waters and so the simple thing is does the South Atlantic want to reduce their size limit to twenty-two or do we want to increase ours to twenty-four? I would like to hope we wouldn't have to get into looking at a whole range of other size limits that aren't on the books, because the purpose of this effort is to bring things together and not to completely reevaluate it.

There may be exceptions if the biology dictates otherwise, but take a look at the items in the restructured document. To us, that's the way to move forward and that's part of the problem with the other actions, is we've got different actions combined into one and they have to be separated at some point.

CHAIRMAN GREENE: So how do we take the restructured document and merge it in with this?

EXECUTIVE DIRECTOR GREGORY: In this instance, you could -- Let me pull it up. You could look at Action 8 in the restructured document on size limits and Action 7 on bag limits and Action 6 on closures and see if they are along the lines of what harmonize means for you and if so, just take those three actions and replace that with the harmonized action and I so move.

CHAIRMAN GREENE: I understand what you're saying, but we're trying to figure out how to get there from here. It's 10:55 and why don't we take about a ten-minute break and let's kind of get our heads around which way we need to go and get back at 11:05 so we can get back to work. We started late and we've got a lot to do. With that, we'll take a ten-minute break.

(Whereupon, a brief recess was taken.)

CHAIRMAN GREENE: With that, we're going to get started with the Reef Fish Committee. Please carry your conversations outside. I am going to go ahead and recognize Mr. Williams. He has a motion he would like to present.

MR. WILLIAMS: Thank you, Mr. Chairman. We've talked about this extensively during the break and we think that for now the best thing that we can do is to remove Actions 10 and 11 from the options paper and replace them with the proposed Actions 6, 7, and 8 in the restructured document. **I am going to offer a motion that we remove Actions 10 and 11 in the options paper and replace them with Actions 6, 7, and 8 in the restructured document.**

CHAIRMAN GREENE: We have a motion going on the board and let's make sure it's worded correctly. Okay, Mr. Williams, is that your motion?

MR. WILLIAMS: Yes.

CHAIRMAN GREENE: Okay. Is there a second for this motion? It's seconded by Ms. Bademan and is there discussion?

MR. WILLIAMS: We continued to discuss whether to apply this only to the South Florida area or whether to apply it throughout the jurisdictions and we never settled that and so for now, I believe it only applies in the South Florida area in the replacement options and so that's something we will continue to work on though.

MS. LEVY: I was actually going to raise that point, because when you read the restructured document, it refers back to a -- For these actions, it talks about in the South Florida management area and in the restructured document, Action 3 is where you're picking what the South Florida management area is and so you can't just add it wholesale without either picking this or kind of modifying it to reflect that you haven't made that decision, I guess, because if you just cut and paste the language, you're going to refer to a management area that you haven't established yet, if you look at Action 3 in the restructured document.

CHAIRMAN GREENE: Okay and so I think it's pretty clear what our intent is and is it okay to ask for editorial license to make sure we do that at this point, because we're trying to get somewhere from here. I understand there is probably some technicalities, as you just pointed out, on your end, but is

that something that can be easily changed or no?

MS. LEVY: Well, I guess what is the intent, because you say South Florida and is it as to be determined in the future, I guess, what South Florida means?

DR. SIMMONS: I think Mara is bringing up a good point, but could we just add into the report that this is going to be further discussed at the joint meeting on Thursday if we're going to establish a South Florida area or not, just to try to get some of these actions and alternatives straightened out a little bit and that we will discuss with the joint councils whether or not we're going to establish the South Florida area and where that area is?

MS. BADEMAN: I think replacing 10 and 11 with these other three actions from the restructured document -- I agree it's not perfect right now and there is some bugs we need to work out, but this at least starts the discussion and I think it probably puts us in a little bit better place.

If you look at Action 11 in the main document now, it's extremely vague and at least this gives us something to look at and so it's a discussion point with the South Atlantic.

CHAIRMAN GREENE: I understand and everybody is good with this and understands the intent of what we're trying to do? Okay. Any further discussion? We have a motion on the floor and it has been seconded. **Any opposition to the motion? Seeing none, the motion carries.** Dr. Simmons.

DR. SIMMONS: Thank you, Mr. Chair. We will add that to the report no problem and Action 12 starts on page 51 and this looks at changes to the circle hook requirement in the Gulf and South Atlantic Councils' jurisdictions.

I think this action got started because the yellowtail snapper commercial fishermen requested that circle hooks no longer be a requirement in the Gulf, to match the South Atlantic Council's regulations. Now we have several alternatives in here that look at multiple species and we have also put in both the recreational and the commercial sector in here.

This is a lot of alternatives right now. We are looking at more than just yellowtail snapper. Alternative 1 is the no action alternative and it would retain the current hook requirements in the EEZ of the Gulf and South Atlantic Councils. Alternative 2 would look at removing the requirement to use circle hooks when

fishing with natural bait for yellowtail snapper in the EEZ off the Gulf of Mexico and we have suboptions for the recreational and the commercial sector. I think that was the crux of some of the public comment originally.

Alternative 3 would remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper south of the 28 degrees North latitude line and approximately around the Tampa area, the St. Petersburg area, in the EEZ of the Gulf of Mexico and, again, for the recreational and commercial sector.

Alternative 4 would require the use of circle hooks when fishing with natural bait for all snapper grouper species south of the 28 degrees North latitude line and so I think that's an alternative that the South Atlantic Council has added back in this document to look at.

Alternative 5 would remove the requirement to use circle hooks when fishing with natural bait for all species in the snapper grouper complex north of 28 degrees North latitude in the EEZ of the South Atlantic. Again, it has it for the commercial and the recreational sector.

Alternative 6 would remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper in federal waters from the Dade/Monroe County line on the east coast to Shark Point on the west coast and, again, it has it for each sector. With that, I will stop there.

CHAIRMAN GREENE: Okay. Any discussion? Circle hooks and j-hooks seems to be a pretty hot topic.

MS. LEVY: Just a question. Does the South Atlantic have a circle hook requirement? I'm sorry I don't know the answer to that, because when I read what the description of Alternative 1 is, it just mentions the Gulf of Mexico as being applicable.

MS. BADEMAN: I can help with that. They do, but it's north of 28 and apparently -- I think the reason why some of these actions are in here, like Alternative 4, is there are some council members that are interested in extending that requirement south and so there's all kinds of options that are a little bit wild, but yes, they do, but it's just not -- It starts -- The requirement is north of like the Cape Canaveral area and so not close to the Keys.

MS. LEVY: Just a suggestion. I know some of these no actions have a lot of moving pieces and so we have tables, but for ones

that are very specific, it would be helpful to actually say what the status quo is, if you could say it in a sentence. Thanks.

CHAIRMAN GREENE: Okay. Thank you.

MR. DIAZ: I just want to make a comment. I wasn't able to hear the comments at the public hearings so far, but I did hear Martha talk about the comments they had got from the meetings she had went to and I heard things like trying to shoot for consistency and eliminate inconsistencies and so I mean this is kind of going in the opposite direction.

I do understand there is some folks that want to do that and then we certainly need to hear from law enforcement and depending on what way we go with this, I could see this being some law enforcement challenges, depending on which option we select. Thank you.

CHAIRMAN GREENE: I understand. I saw a hand down at the other end of the table and forgive me, but I couldn't see who -- Martha, I'm sorry.

MS. BADEMAN: I imagine that Captain Kelly and some of the folks from this area will talk about this in public comment, but the yellowtail snapper fishery, the commercial fishery in particular, fishes quite differently than other reef fish species. They are using different gears and they are using light tackle a lot of times and so I will let them talk about it in public comment and make their argument for dealing with this, but I think we will have enforcement also at the meeting on Thursday. I think there will be some FWC folks.

CHAIRMAN GREENE: Thank you.

MR. WALKER: I was just going to add that with circle hooks I think you have less -- We would have less fish mortality using the circle hooks and one thing with the natural bait and is it just anything that's non-artificial and is that the definition they're using of natural bait? Is it cut bait or live bait or is it anything that's not artificial? Okay.

EXECUTIVE DIRECTOR GREGORY: I will be real quick, but the South Atlantic Council did away with the requirement to use circle hooks south of 28 degrees latitude because of a study that was done in the Gulf comparing circle hooks and j-hooks and that study was later refuted at a SEDAR, but when the industry came to us and said we want to have the similar thing and to be able to use j-hooks for our yellowtail fishing, we on staff said

circle hooks, like David said, circle hooks work and so we don't want to just do away with circle hook requirements for all reef fish, but this option is designed for the commercial fishery only to not require circle hooks, but still to require circle hooks for the rest of the reef fish and for the recreational sector that we have now.

CHAIRMAN GREENE: Thank you. Any further discussion? Okay. Knowing we got a late start, I wanted to get through that particular action and I know that accountability measures are following and so I guess I will ask Dr. Simmons a question. Of the remaining action items left, is there any one in particular that you need clarity on, because we need to kind of move on.

DR. SIMMONS: I was just going to suggest we can come back to the accountability measures after the joint meeting and after we have a better understanding of earlier sections and actions in the document, but it might be good to get some information from Mr. Perret on the purpose and need quickly. He had some suggestions earlier.

CHAIRMAN GREENE: Good call. I think we'll go back to the purpose and need at the front of the page and as soon as Mr. Perret is ready with his words of wisdom, we will move on.

MR. PERRET: The first sentence, and I know we're all for simplifying fisheries management, but it seems like any time we try to simplify, we just kind of compound issues, but just some suggested language change.

The purpose of this amendment is to provide consistent fishery management for reef fish species unique to South Florida or something like that. I like "consistent" better than "simplify" and on the second paragraph, to me it's starting out the need for the amendment is to decrease the public's burden and the need for this amendment is to increase the public's -- To assist the public or increase the public's awareness of varying different regulations or something like that, just some language or suggested change, but the first comment was the one on the consistency rather than simplicity.

CHAIRMAN GREENE: Okay. Duly noted and I think staff has made a note of that and I'm sure they will change it accordingly. With that, unless there is any opposition, we're going to leave that section and move on to our next agenda item, which would be the SSC Review of Alternative Red Snapper MSY Proxies. That leads into SSC Comments and Tab B, Number 5 and, Dr. Barbieri, if you're ready.

SSC REVIEW OF ALTERNATIVE RED SNAPPER MSY PROXIES
SSC COMMENTS

DR. LUIZ BARBIERI: There is actually a brief presentation that's to be posted there that summarizes some of the SSC discussion points and recommendations to the council.

CHAIRMAN GREENE: We will try to find that presentation and get it up there. Okay. This was emailed out at 11:41 this morning if you're struggling to find it. Go ahead, Dr. Barbieri.

DR. BARBIERI: Mr. Chairman, given the situation with the schedule, I am going to try to go through this as fast as possible. I am going to be around pretty much all week, bouncing between the two councils, and so if there are any additional questions or more detailed explanations, I can always come back and revisit the issue when you have more time.

Regarding the alternative red snapper MSY proxies, this is some background information that hopefully you have in front of you and I don't have to read all of this, but the council has requested an analysis from the Center that looks at different alterative values of MSY proxies for red snapper.

As you know, the current rebuilding plan is working with a 26 percent SPR proxy, but the council, given the results of the last assessment, the council is looking at exploring some other options as well and so the SSC received a presentation from the Science Center and it was a very detailed, thorough, complete presentation that looked at the outcomes really of all the different SPR values being used and some other options in terms of MSY estimates and after reviewing all of that and having some extensive discussion, the written report that's part of your briefing book actually has a lot of detailed information on that presentation and the SSC discussion.

The SSC did not really find any other reason to depart from the current recommendation of staying with the 26 percent SPR as a rebuilding target for red snapper and so I will pause there, Mr. Chairman, in case there are some questions regarding this item.

CHAIRMAN GREENE: Thank you. Any questions?

MR. KEVIN ANSON: Insufficient biological evidence for a better MSY proxy, so we had -- The council had talked about this before and you had come up and talked about SPR and kind of SPR and what it means and what it doesn't mean, I guess, but it comes

down to risk I think is what the gist of it was and so insufficient biological evidence for a better MSY proxy, but how about insufficient -- I mean a different MSY proxy. I guess is there a different explanation of this in terms of, again, just the risk and what it entails and what it doesn't entail?

DR. BARBIERI: Yes and the SSC's position here is really based on the life history and the population structure of red snapper and if you look at the literature, and this is not just globally, but involving all the other MSY proxies that you have adopted for all the other species that you manage, I don't think there is one species there in that package that is below a 30 percent SPR with the exception of red snapper.

When you look at the body of evidence, research, that is used for the last twenty or thirty years, 30 percent -- Most of the SPR proxies vary between 20 and 60 percent, depending on the life history characteristics of the species. For something like red snapper that lives to be over fifty years old and needs a lot of age classes there in the population, 30 percent is the value that we think is the minimum that could be used and guarantee long-term stability of the stock and resilience in terms of the ability to withstand impacts, environmental variability, or some issues.

You are right that you as the council, in terms of assessing risk, could depart from this recommendation and use something different. As your body of scientific advisors, we are basically telling you it's something that involves a level of risk that we feel is higher than it would be for rebuilding the stock to a sustainable level.

MR. DIAZ: Thank you, Dr. Barbieri. I am going to try to ask a question, because I am trying to get something straight and I might even have a hard time asking the question. We used to use a process called MSY link and if we used MSY link today, the SPR would be 23 percent, if I read the paper correctly, but we're using a new method now, because it's better than MSY link. I believe even at your meeting you all made a motion to not use MSY link anymore, but in the new method that we're using, are we now at a higher standard than what we would have been at with MSY link? I am just trying to get that straight and can you help me out with that?

DR. BARBIERI: Sure and we might have to ask at some point for Clay Porch to step up and discuss in more detail the MSY link or the analysis that the Center conducted, but the use of an SPR proxy is really something that you do when you don't have an MSY

estimate.

When you conduct the assessment and you go through the model process, the model can either estimate a valid -- Come up with a valid estimate of the stock recruitment relationship and if that's the case and the value that comes out of that estimate of the model result is approved through the SEDAR process and approved or accepted by the SSC, that means that you have an actual direct MSY estimate and you don't need to use a proxy in that case.

In the case of red snapper, because the model wasn't really able to come up with a valid estimate of steepness and therefore couldn't estimate the stock recruitment relationship, the MSY estimate was not really accepted by the assessment panel, by the SEDAR review panel, and by the SSC and so at this point, there is no valid, scientifically-accepted estimate of MSY for red snapper.

This is why we are using a proxy to substitute for using the MSY estimate and now what the proxy is doing is basically putting aside some amount of spawning biomass and saying, okay, if we keep this spawning biomass out there, let's expect that on average over time the stock will remain sustainable, given the levels of fishing and natural mortality.

This is really the approach that we are going with here and I know that there have been some alternative analyses conducted by the Center that at this point is looking at different ways to perhaps provide an alternative to an MSY target, but at this point what we have coming out of the assessment is not having a valid MSY estimate and we have to use the proxy. Did that address your question?

MR. DIAZ: I think partially, but still is the standard that you all are recommending now any -- Is it a higher standard or a more stringent standard?

DR. BARBIERI: No, it's not. Now, remember that the rebuilding plan that has been in place and that's the rebuilding plan that you're following right now assumes a target of 26 percent SPR and so this recommendation is not any different than what the SSC has recommended for the last several years. This is basically recommending that you stay on course with the existing rebuilding plan and the existing rebuilding target and so nothing different, no higher standard by any means.

MR. CAMPO MATENS: Luiz, thank you very much and, as you know, I

was there in New Orleans when this was discussed. I think it's obvious on the face of it that as you move up and down this SPR scale that risk changes. My curiosity is, is there any way to quantify that risk, should we move up or down the SPR scale?

DR. BARBIERI: I don't know how that could be done. I mean ideally you would have the actual estimate of the risk associated with each one of those probability of overfishing or not rebuilding the stock or not having some level of non-sustainable fishing, but we don't have those results, that analysis, completed and so unfortunately we cannot assign specific risk values to those SPR proxies.

MR. MATENS: Let me follow up on this. So if this council recommended going to an SPR of anything less than 26, we would be accepting risk blind and is that a correct statement?

DR. BARBIERI: I'm sorry. Can you repeat the last statement?

MR. MATENS: If we started to move down on the SPR scale to 24 or 22 or 20 or anything else, we would be accepting increased risk, but we would be blind as to how much risk we would be accepting and is that a correct statement?

DR. BARBIERI: Yes.

CHAIRMAN GREENE: Go ahead, Dr. Stunz.

DR. GREG STUNZ: Thanks for letting me address your committee. Luiz, I've got a question on the same lines as Camp. In the motion, there is insufficient biological evidence, but if we were to go, as Camp suggested, down to 23, is there biological evidence that that's better or worse than 26 or really what I'm asking is is there biological evidence that 26 is as good or better than the others?

DR. BARBIERI: No. Now, the way that this works between the scientific advice, and I think that this needs to be made clear, this is not the SSC telling the council manage the stock this way. I like to use analogies and so in this case, it's like risk, for example, of smoking.

You can ask a doctor and say, listen, I like to smoke and I love to smoke and I had an uncle who died at age ninety-five and he smoked all his life and so can you tell me that it's okay to smoke and the doctor is going to tell you, well, no, I can't do that.

You have to assume that risk and you don't know what the risk is, but the science over time has shown that smoking increases the probability of you dying earlier or not living as long or not being as healthy and so we still don't know what the actual different risk levels are, but looking at the body of scientific evidence over time and the doctor is not telling you don't smoke. You still have the freedom to smoke if you want to, but you know you're going to be assuming risk that's higher and that the scientific evidence indicates that that risk is based on previous studies or case studies.

No, we can't at this point. We just don't have the tools at this point to quantify what the difference would be between 20, 23, 26, or 30 or any other, but based on the state of the science on this, we know that the lower the SPR for a species like red snapper, the higher the risk you're going to be assuming. Did that answer your question?

DR. STUNZ: That answered it and I completely understand the analogy. I am just worried that -- Let's say, for the sake of argument, the SPR was in fact at 23 and not 26, just hypothetically. Would this motion read the same thing, essentially? Would there still be insufficient biological evidence to remain the same in terms of if the yield was 23 SPR?

I guess what I'm asking is I'm not seeing evidence that 26 is necessarily better than 23 and it's just we don't know and you're just assuming a little bit more risk.

DR. BARBIERI: Right. I mean you just have a body of evidence that looks at life history and population dynamics of stocks. Longevity is one of those and sexual maturity and egg production and a whole number of different factors and over time you can compile all of those and look at those different examples and in a situation like red snapper, to tell the truth, and you look at what the South Atlantic has adopted for this same species, the recommendation from the SSC was actually to use 40 percent, given the longevity of the stock, but the council decided to assume 30 and has been using that.

26 is close enough to 30 that since you had this already on the books we decided that let's just go with 26, but we just don't feel that anything lower than 26 would be advisable to you. It's not a matter of right or wrong, but it's just we wouldn't advise you to do that.

MS. LEANN BOSARGE: I am not on this committee, but, Luiz, you said a lot and I'm trying to take it all in. You mentioned the

proxies, the MSY proxies, that we use for all the other fish that we manage and can you repeat that? Did you say that this is the lowest? Do we have some that are similar to this or what do we normally do on those?

DR. BARBIERI: I have to rely on staff to look at the record, but my recollection is that there is no other species in the snapper grouper management plan that is lower than 30 percent other than red snapper. Steven, is that the case?

MR. ATRAN: That is correct. Red snapper is at 26 percent and the majority of our other reef fish are at 30 percent and I believe we have a couple of species, goliath grouper and maybe one other, where we went to 40 percent, but generally most of the recommendations have been to set SPR somewhere between 30 and 40 percent.

MR. SANCHEZ: I have a question for anyone and probably Roy. I remember -- I guess if we adjust the SPR, doesn't that affect the rebuilding timeframe?

DR. CRABTREE: I think you would have to revise the rebuilding plan and reevaluate rebuilding timelines and I think what the Center looked at was that you would recover in ten years or less at those lower SPRs, so that if you started the rebuilding plan in 2016 or something that it would end in 2026 rather than 2032.

Back to the question of the 30 percent. We have looked at this nationwide and this is one of the lowest SPR, meaning most aggressive, reference points used in the entire country and so you know the argument for going lower than 26 percent is awfully difficult to make, because what we know about fish like this is in most cases the appropriate SPRs are 30 percent or even 40 percent or higher, in some cases. I think it's a tough lift to make to try and reduce the reference point here.

MR. ANSON: I understand where red snapper is relative to other fish that the agency manages and I didn't participate in any of the conversation in this last SSC meeting, but you know relative to this body of knowledge that we have for red snapper and red snapper is one of the species that we have the most information on and relative to other snapper or reef fish fisheries in the world, it hands down will top any of the other fish when you make those comparisons.

I understand the relationship between having a full range of age classes and such as it relates to risk, but you know some of the information that we have available here as of late, ten of the

top twenty years for recruitment the SPR were 5 percent or less and so you know there is a lot of the I guess book knowledge that we need to try to kind of correlate with our actual knowledge in data that we have for the species.

Just kind of make sure that we're moving the book knowledge and understanding, I guess, with the science, because with the more science and the more data we have, we should be able to make a little bit better judgement call and be able to kind of minimize that risk that we take or we put into the analysis as such and the decision making and so that's all I'm trying to make a point, is that as we go through time and we accumulate more and more information, we should have a much better understanding of what the fish does and what the fish needs biologically and then we can make those decisions in a bit of a better sound environment I guess is what I'm trying to say. Thank you, Dr. Barbieri.

DR. BONNIE PONWITH: So I appreciate your comments, Chairman Anson, and you're right that when the SPR for this stock was at very low levels that we did occasionally see spikes in recruitment and that's one of the idiosyncrasies of this species. That can still happen and it leads us to understand that environmental factors and other things that aren't totally quantified or well understood are influencing those recruitment patterns.

It is not necessarily the spikes that we're worried about when we contemplate what is the right SPR to protect the long-term vitality of this stock. It's those spikes that go in the other direction that become worrisome and so you're right that we've seen spikes upward in recruitment and the concern is how low can you set that level and still be able to recover from recruitment failures, if you had a series of those year after year, and that's the flip side of that risk coin or that recruitment coin.

MR. ANSON: Just to follow up on that, again going back to my comment about the body of knowledge that we have, is not only on the science side we're getting better in capturing those signals, but on the management side in being able to track what the Fs are or what the human removals are. We're getting much better at that as well and so they're kind of converging, I think, to a point.

MR. WALKER: Luiz, we've got the eastern and the western Gulf and I guess the SPR is increasing in the west and it's decreasing in the eastern Gulf and how is the biomass doing with that?

DR. BARBIERI: The biomasses are increasing on both sides of the Gulf. Now, the prognosis, when you look at the long-term projections, is different between what has happened in the east and the west, but the SSC looked at those analyses and discussed some of those issues, but right now the reference point that we have and the way that you have been managing the stock is Gulf-wide and so we really did not go beyond that Gulf-wide SPR level, because you know you don't have anything right now looking at managing those two stocks separately or portions of the stock separately.

MR. WALKER: So the SPR is lower in the eastern Gulf and the recruitment -- We have four years now that we're at low recruitment and I'm just kind of worried about the recruitment and when we might hopefully get some numbers we can appreciate.

CHAIRMAN ANSON: Any more questions for Dr. Barbieri? Okay.

SSC REVIEW OF THE EFFECT OF RECALIBRATED RECREATIONAL REMOVALS AND RECREATIONAL SELECTIVITY ON ESTIMATES OF OFL, ABC, AND MSY FOR GULF RED SNAPPER

DR. BARBIERI: With that, Mr. Chairman, I'm going to just move on then to the next item, which was to Review the Effect of Recalibrated Recreational Removals and Recreational Selectivity on Estimates of OFL, ABC, and MSY for Gulf Red Snapper.

You may remember an analysis was presented to you on this that was looking at some options for reallocation and the impact of those reallocations, reallocation options, on the catch level recommendations that come out of the assessment as well as the potential impact of the new recalibration of the recreational survey estimates.

In that case, the SSC, after looking at that analysis, agrees that yes, the reallocation and the recalibration of the recreational estimates would cause a change in the estimates of OFL and ABC for red snapper and so it's something that would prompt re-estimation of those quantities, in case you want to go that way.

We didn't go any further into more detail on this and basically just looked at this as a way to provide some feedback on the question of if there are these reallocation options and the impact of the recreational survey recalibration and whether this would impact OFL and ABC and our conclusion was that yes, it would and so we have to revisit those figures. I will pause

again, Mr. Chairman.

CHAIRMAN GREENE: Any questions? Seeing no questions, we can continue on.

SSC REVIEW OF GAG INDICES OF ABUNDANCE

DR. BARBIERI: Thank you and moving on, another item that we reviewed was the indices of abundance, an update on the indices of abundance for Gulf gag since the last assessment. You requested the Center -- I guess you had a lot of public input, stakeholder requests, to look into the situation with gag, given the outcome of the last assessment.

The Center then updated those indices of abundance and the fishery-dependent indices were updated through 2013 and the fishery-independent through 2014 and the SSC, looking at that, noticed that the trends, all the indices actually, agree and having the trends going in a downward direction and that suggested there are issues there going on with gag abundance that may not have been captured by the last assessment.

Based on that, the SSC recommends caution on your part in setting up ACL and ACT for gag, because there are some red flags out there that indicate that this stock may not be in as good abundance as was estimated by the assessment, the last assessment. Again, Mr. Chairman, I will pause for any questions.

CHAIRMAN GREENE: Thank you. Any questions? Seeing none, continue on, please.

MR. ATRAN: At this point, there is a gag options paper for adjusting ACL and I could either go over that now or you could have Dr. Barbieri just go through the complete SSC report and then we could come back to that.

CHAIRMAN GREENE: What's the pleasure of the committee? I guess we'll just go on through the report and then we'll come back to the options paper as you noted, if that would be okay with Dr. Barbieri.

REMAINDER OF THE SSC REPORT

DR. BARBIERI: Okay and so moving on to the mutton snapper OFL and ABC recommendations that came out of the projections from the last assessment, I believe that you have received already a report that provides stock status and catch level

recommendations for mutton snapper.

The stock was found to be not overfished and not undergoing overfishing and the SSC applied its ABC control rule and developed projections for mutton snapper using a P* of 30 percent for ABC and 50 percent for OFL and I have a table there that should be also in detail in your written report from the SSC that sets catch level recommendations for OFL and ABC from 2016 to 2020 and those values are presented both in landed numbers and weights and discards.

This one is really just a brief overview of what's presented in detail in your report in case there are any questions or comments that you would like to make.

CHAIRMAN GREENE: Any questions on this?

MR. WILLIAMS: Luiz, these yield streams apply to the mutton snapper population as a whole, right, the Gulf and the South Atlantic and not just the South Atlantic? Okay.

DR. SIMMONS: Just a quick question, Dr. Barbieri. I didn't get a chance to read the whole assessment. What were some major indications or when you guys were working on the stock assessment of why the projections are so much lower than they have been in the previous assessment? Were there recruitment problems or major changes in catches or just can you give us a quick synopsis?

DR. BARBIERI: Right and that's a good question and I should actually have pointed this out, because this is an issue that came up when we were discussing this with the South Atlantic Council as well and the issue is that the last assessment used an older model, so to speak, the ASAP model, that wasn't really able to explicitly take into account some of the selectivity functions, some of the issues really, that capture those issues of the fishery as properly as this one does.

This update uses a more up-to-date version of the model that better estimates the selectivities and because of that, the productivity of our estimates or the productivity of the stock have actually changed and so you're going to see that the estimates of MSY between this assessment and the last one are different, but that doesn't reflect in any way changes in productivity of the stock.

It's just the way that this newer model can actually account for all the issues more explicitly and capture the dynamics of the

stock better and so these estimates are more reflective of the actual abundance levels in the productivity of the stock out there.

In the case of your question about bad recruitment, there wasn't any really indication that there are any negative trends in recruitment or a decrease in productivity of the stock that we could tell. It's really something that had to do with the modeling approach and how those estimates came up.

CHAIRMAN GREENE: Thank you. Any other comments?

MR. WILLIAMS: Just one. I am pleased to see that in these mutton snapper projections and ABC recommendations that it actually increases over time. Most of what we look at they go down as the years -- Do you know why that is?

DR. BARBIERI: In this case, it's because the stock, as it is right now, it is not way above that biomass at MSY and so even though the stock is not overfished, by using this projection, you are actually allowing the biomass of the stock to increase further and given what's coming out of the recruitment estimates that are being used for the projections, the projection of the stock to be more productive or higher abundance as we go into the future.

CHAIRMAN GREENE: Okay. Thank you. Any other questions? Okay, Dr. Barbieri.

DR. BARBIERI: Another quick report on the hogfish assessment results and recommendations of OFL and ABC yield streams for the hogfish stock. You may remember that the assessment actually was conducted for three separate stocks that had been found to be separate genetic units, biological units.

There is small stock up in North Carolina that didn't really have enough data to be assessed properly and there is a southeast Florida/Florida Keys portion of the stock that is really managed by the South Atlantic Council and then there is the west central Florida portion of the stock that is under the council's jurisdiction.

This portion of the stock, the assessment came out as not overfished and not undergoing overfishing. The SSC applied its control rule and came up with a P* of 40 percent and recommended three-year projections at 50 percent for OFL, as we traditionally do, and at 40 percent for ABC. Yes, Mr. Williams, in this case we have a situation where the projections show that

the stock is actually at a higher abundance level now and that going into the future the yield streams show decreasing trends in OFL and ABC.

Basically, because the biomass, the current biomass of the stock, is very high, you are above the biomass of MSY and so since the OFL and ABC are based on MSY, they actually provide you a trajectory that fishes the stock down to that level and so the SSC discussed this and there were some suggestions from some members that we provide you with a constant catch projection scenario that would avoid you having decreasing catches over time, but because there are different ways to accomplish this, to get to that constant catch, and because we didn't know what you wanted to do in terms of how to manage this stock and whether you wanted to work with constant catches or not, we decided to forego that part and present this to you and if you actually would like to see a constant catch scenario, we will bring it back to you at your next meeting.

CHAIRMAN GREENE: Thank you. Any more comments?

EXECUTIVE DIRECTOR GREGORY: Thank you, Dr. Barbieri, and what are the three ways of doing constant catch, I mean if the council wants that and they've been asking that in past stock assessments?

DR. BARBIERI: Well, there is different ways for you to either calculate what the constant catch would be. Either you use an average of those three years or you can use different scenarios there to come up with that and so we discussed that and felt that, in looking at all those options, if you want to go that way that we can provide you with an additional recommendation. In this case it wouldn't be the Center. In this case, it would be FWC to put together an options paper that would have different options there of how you could address this.

EXECUTIVE DIRECTOR GREGORY: I think I seem to remember to do it the way we were doing it in the beginning requires a lot of iterative analyses to find out what is that constant catch that meets the same sort of protection that the declining does and at one point in one stock, Clay I think just averaged the three year projections and found that that was very close to the more difficult and time consuming iterative approach and so if we could get guidance that that is an appropriate way of us implementing constant catch, then we don't have to go back and forth to the SSC.

DR. BARBIERI: That's fine. I mean one thing that we can do is

we can work with the Center in developing a white paper that would look -- An analysis summarized for you or for the SSC to review of different ways of achieving that constant catch and then have the SSC review that and provide you some recommendation.

One last thing that I forgot to say about the last slide is that keep in mind that this portion of the stock that's managed by the Gulf Council is actually not overfished and not undergoing overfishing, but there is a portion of the stock that is the southeast Florida/Florida Keys portion that is overfished and undergoing overfishing and so in that case, there is a rebuilding plan that's going to be presented this afternoon to the South Atlantic Council.

Now, there is a small portion of that biological unit that actually falls under the Gulf Council's jurisdiction and so staff actually felt that it would be good to bring this to your attention so that you can keep an eye on the rebuilding strategies that are being used by the South Atlantic Council, since that portion of the stock there that's managed by the South Atlantic is in your jurisdiction. Did I present this correctly, Steven?

MR. ATRAN: That's correct and that was one thing I was going to bring up. I am not sure -- We've got a small slice, as you said, and I don't know what the percentage is, of the South Florida/Keys Hogfish stock that's overfished that extends into the council's jurisdiction and then we've got most of the hogfish that are a separate stock in the Gulf that are doing fine and they are not overfished or undergoing overfishing.

One of the things we need to figure out is how we're going to deal with that slice of the South Atlantic stock that extends into our jurisdiction and I don't know if that's something that's going to be discussed at the Joint South Florida meeting or not. If it is, maybe we might want to hold off on making any decisions until after that joint meeting.

MR. WILLIAMS: Luiz, does the South Florida/Keys stock -- Is there a discontinuity in its distribution from the Keys into northwest Florida? If so, how far up does it go?

DR. BARBIERI: The separation?

MR. WILLIAMS: Yes.

DR. BARBIERI: I mean there is basically a little tip turning

around, over here actually, into the Gulf, very small, and then the other portion is really off of the Tampa Bay area, Charlotte Harbor area, the west central Florida.

MR. WILLIAMS: So is our portion of the Keys stock principally Monroe County, would you say?

DR. BARBIERI: Yes and so it's a very small proportion of the stock of that unit, biological unit, that kind of spills into the Gulf Council's jurisdiction, very small. Of course, the South Atlantic Council will be considering this afternoon different rebuilding strategies for that stock and I will be giving a presentation to them on different scenarios that they may consider for rebuilding the stock at different probabilities of rebuilding and achieving either faster or longer rebuilding timeframes.

CHAIRMAN GREENE: Okay. Thank you. Any other discussion? We are behind schedule and I believe the intent of the Chair, Chairman Anson, is to make probably an hour long lunch. We have two additional items within this section and so at this point I'm going to back up. Item Number VII, which would be Review of Options Paper and Decision Spreadsheet, Tab B, Number 6(a), (b), and (c). Mr. Atran, if you can quickly run us through this.

OPTIONS PAPER - FRAMEWORK ACTION TO SET GAG ACL AND RECREATIONAL SEASON
REVIEW OF OPTIONS PAPER AND DECISION SPREADSHEET

MR. ATRAN: Okay. We have prepared an options paper and as you know, we do have ACL recommendations now from the SSC and we also have concerns that the results of the stock assessment may have painted a somewhat optimistic picture of where we're going right now with gag.

Although the assessment said that the stock is neither overfished nor undergoing overfishing, anecdotal information from fishermen have suggested that the abundance appears to be down in the most recent years and so we requested an analysis of CPUE indices through 2014. The assessment only went through 2012 and the results did show that CPUE indices are down in the last few years.

The SSC recommended being precautionary in how you set the ACL for gag going forward and our Reef Fish AP had also previously recommended a precautionary approach for the same reasons and so we've got two actions in this options paper.

One action is where to set the ACL for the next few years and then the other action is where to set the recreational fishing season or seasons, if you want to have a split season. We have some projections that were made with a decision tool, a spreadsheet, that the Regional Office put together thanks to Mike Larkin.

We have some estimates of how long the seasons would be under different combinations of ACLs and various approaches to setting the season. Just very quickly to go over the Action 1 alternatives, which is the ACL itself, Alternative 1 is no action. We are currently at a stock-wide ACL of 3.12 million pounds and we do have ACTs for both the commercial and the recreational sector.

The recreational sector has an ACL of 1.93 million pounds and an ACT of 1.708 million pounds. On the commercial side, their ACL is 1.217 million pounds and that normally would be their quota, but when the current ACLs were adopted, there was some concern from the previous stock assessment that because of the low amount of IFQ shares that were going to be distributed for gag that there would be a significant amount of discard mortality from vessels that would have to throw back their gag because they don't have sufficient allocation to keep them and that wasn't accounted for in the stock assessment.

We had an ACT for the commercial sector and right now it's 0.939 million pounds. That is also their quota for gag. This latest stock assessment did take into account discards during any closed season or because of a lack of quota shares and so we no longer need an ACT on the commercial side.

All of the other alternatives other than status quo do not have an ACT on the commercial side and only the recreational side and so the ACL would become the quota on the commercial side.

Alternative 2 is a precautionary approach. It would set the ACL at 3.80 million pounds. I am not going to go through all the other numbers. You can read them. This was recommended by the council at the last meeting. It is midway between status quo and the next lowest ACL that we previously had.

Alternative 3 would set ACL and ACT based upon the long-term projected optimum yield, equilibrium optimum yield. In theory, we could set the ACL at this level and never have to change it again, because we would always be catching below our MSY level, even given fluctuations. In reality, there is a lot of uncertainty with these long-range projections and chances are

the equilibrium OY estimate will change with the next stock assessment, but 4.46 million pounds is our current estimate of what the long-term equilibrium would be.

Alternative 4 was an attempt to try to set a constant catch based upon the yield projections that we had. As you heard on the discussions just dealing with hogfish, we didn't have a constant catch projection for the three years that the SSC was looking at, which was 2015 through 2017, and so if you wanted to do a constant catch ACL, it would have to be at the lowest ABC of those three year periods, which would be 4.57 million pounds. You could maintain that going forward.

Alternative 5 has a separate ACL for each of the three years, 2015, 2016, and 2017, based upon the specific ABC that was recommended for each of those years by the SSC. 2015 you can forget about. There is no way we can get regulatory action in place before the end of the year and so we're really looking at where to set the ABC and any seasons for 2016 and 2017 and if there is no update to the ABCs, the ACLs would remain at the terminal point going forward.

Those are the actions as far as ACL and then Action 2 dealt with changes to the recreational gag fishing seasons and under all of these alternatives, it looks like we could have a longer season than we currently have, even the conservative ones.

Alternative 1 is no action. We have a recreational gag season that opens on July 1 and it closes on July 3 and then it's closed from the 3rd until the end of the year. That's 147 days, unless it's shortened due to a projection that the ACT will be reached sooner and it doesn't appear that we're going to be reached any sooner than that.

Alternative 2 deals only with that December 3rd to the 31st closed season. That is a fixed closed season, but it's really not necessary, because if NMFS projects that the season needs to be closed on a certain date, they will close it on that date. Alternative 2 would remove that fixed closed season in December and either allow the season to run until the end of the year or until the ACT is projected to be reached.

Alternative 3 and 4 would remove all of the existing closed seasons other than the February/March closure, which is dealt with in the options, and then determine how you want to set up an open season for the recreational gag season.

Alternative 3 would open the season on January 1 and then it

would run through until the date when the ACT is projected to be reached with certain behaviors for that February/March closed season. Alternative 4 would try to adjust the season so that at least in the first year of implementation it would be open through December 31 and then we would back calculate what the opening date would need to be in order to be able to take it through December 31.

The options are similar in Alternatives 3 and 4 and they deal with how we're going to deal with the February and March closed season or partial closure now on shallow-water grouper. Currently for shallow-water grouper during those two months the season on those fish is closed shoreward of twenty fathoms -- Excuse me. It's closed beyond twenty fathoms, but it's open shoreward of twenty fathoms.

Option a, 3a and 4a, would retain that for gag so that if those months fall within what would otherwise be an open season for gag that it would be open only shoreward of twenty fathoms and it would be closed along with the other shallow-water grouper beyond twenty fathoms.

Option 3b would remove that twenty-fathom closure only for gag and if gag is open during February or March, it would be open in all waters, regardless of depth. Then Option c would close the gag to all waters, regardless of depth, during those two seasons and so both shoreward and seaward of the twenty-fathom boundary gag would be closed during February and March.

Now, this gives us -- For Alternatives 3 and 4, we have three options and then five actions as far as ACLs and so toward the end of the document, on pages 11 and 12, are tables where we put out the results of the decision spreadsheet to project what the seasons would be under every combination of ACL alternative and how you wanted to treat the twenty-fathom closure.

For example, we've got Table 2.2.1 up on the screen right now and this deals with Action 2, Alternative 3. That's the one that says open on January 1 and go until the ACT is projected to be reached. If you leave the twenty-fathom closure in effect as is, which means during February and March, you could still fish for gag shoreward of twenty fathoms, but it would be closed further offshore.

Then the projection is that you could fish from January 1 through August 15, or 227 days. Then, likewise, under each of the other ACL alternatives are how long the season would be. Alternative 5, which is the least restrictive alternative, you

wouldn't have any closure and you would have a year-round fishery under that twenty-fathom effect.

Alternative 3b allows gag fishing in both offshore and seaward of twenty fathoms and, again, each of the alternatives has an estimate of how long the season would be, running from 222 days to 363 days. Then if you were to have a fixed closed season for gag regardless of what the depth of water, which is Alternative 3c, then under the most restrictive alternatives, the status quo or that precautionary alternative that we added at the last meeting, there would be a closure either August 28, under Alternative 1, under status quo, or mid-November, November 18, under Alternative 2. Under any of the other alternatives, there would be no closure and the season would be open year-round.

Then Alternative 4 options, which is the next table, it's set up pretty much the same way, except, as I said, we tried to compute, at least in the initial year, when the opening date would have to be in order to remain open through the 31st.

We are not projecting that that opening date would be reestablished or recalculated every year. Once it's established for the first year, that would stay in effect and then there may or may not be closure toward the end of the year, depending upon the quota for that year and the fishing pressure.

Again, since under this set of alternatives February and March would be closed for gag anyway, under Alternatives 1 and 2, you have the same season under both of those. Excuse me. Yes, you would. Under Alternative 1, regardless of whether the twenty-fathom closure is in effect or you're allowed to fish throughout the waters, because the season is closed, it would still be June 21 through December 31, or 191 days.

Option 4c is actually a split season. You would open in January and then close for February and March and then open again in April until either the end of the year or until the ACT is reached and so under Alternative 1, the most restrictive, you would have the January opening and then, in order to get an opening that would last through the end of December, you would leave it closed until July 5 and it would open July 5 through the end of the year for 211 days.

I won't go through the other numbers. You can read the numbers on here. Obviously as you go from Alternative 1, which is most restrictive, to Alternative 5, the least restrictive, you get more days fishing and then as you go from either having a partial closure, no closure, or a total closure, that also

affects how many total days you would get if the season is open in February and March.

The only other thing I would like to say about these estimates is they are -- They have to be considered preliminary. They are based upon the most recent information we have about what the catch rates have been during each of the seasons. In the case of March, February and March, we had to go back to I believe it was 2009 to find some seasons when the recreational season was open during that period and so we're getting a little bit of old data that's being used to estimate these seasons.

Whatever combination of alternatives is adopted, the Center will need to recalculate exactly what the seasons would be, but this is our best estimate as of right now.

CHAIRMAN GREENE: Thank you, Steven. Anybody got any questions?

MS. BADEMAN: Just a quick one. In the Excel sheet, it looks like the last year of data that you used is 2013 and is 2014 available? Could we use that for the later -- If you go to the top of the document, Wave 4 through 6 is based on 2013 and could we use 2014 in here, just so that we have more recent information, at least before this is finalized? I realize it may not have been available before.

MR. ATRAN: I think Mike Larkin can answer that for you.

DR. MIKE LARKIN: It was because that was the most recent year, 2013, where we have landings for all three years in Waves 4, 5, and 6. 2014 we did not have that and I can't remember off the top of my head what the closures were in 2014, but that's why we didn't use those landings or maybe they were too preliminary at the time that we made this spreadsheet, but I think there was additional closures in 2014. No? Then I guess this goes back to the issue of it was just preliminary at that time for 4, 5, and 6.

CHAIRMAN GREENE: Thank you. Anybody else? Okay.

MR. ATRAN: Our intent is to bring back a framework action for final action at the next council meeting and hopefully we will be able to do that. You don't have to select preferred alternatives at this meeting, but if you can, it would allow us to focus on certain sets of alternatives, but, like I said, we can bring you back a framework action with no preferred alternatives if that's what you would rather have us do.

MS. BADEMAN: At least with the season at this point -- I mean this is the first time people are really seeing this and I think we should at least wait until full council.

CHAIRMAN GREENE: Okay. I certainly don't have a problem with that. Anybody else? Okay. Chairman Anson, do you want me to continue? It is now 12:20 and do you want to try to get this decision document, Tab B, Number 14, under Item VIII out of the way or what is your pleasure?

MR. ANSON: I think we ought to break for lunch, Johnny.

CHAIRMAN GREENE: Okay. What time do we need to be back?

MR. ANSON: Let's try to be back at 1:30.

(Whereupon, the meeting recessed at 12:20 p.m., June 9, 2015.)

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June 9, 2015

TUESDAY AFTERNOON SESSION

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The Reef Fish Management Committee of the Gulf of Mexico Fishery Management Council reconvened at the Marriott Beachside Hotel, Key West, Florida, Tuesday afternoon, June 9, 2015, and was called to order at 1:40 p.m. by Chairman Johnny Greene.

CHAIRMAN GREENE: Let's go ahead and get started. We're already starting off about ten or fifteen minutes late and so, Dr. Simmons, if you'll go ahead and start off hogfish, B-14.

HOGFISH AND MUTTON SNAPPER OFL AND ABC
HOGFISH DECISION DOCUMENT

DR. SIMMONS: Yes and I will just quickly go through B-14. We worked on this a little bit with the South Atlantic Council staff. As Dr. Barbieri mentioned, the South Atlantic Council is working on an amendment for the East Florida/Florida Keys stock based on the genetic evidence that the South Atlantic and Gulf SSC recommendation. They are treating hogfish as three stocks. We heard that this morning and they're going to be looking at a rebuilding plan for this particular stock, the East Florida/Florida Keys stock.

We share some of the jurisdictional area by both councils for this stock and the SSC considered the information, the best available science, for the OFLs and ABCs and they did indicate that the stock is undergoing overfishing and is overfished.

The rebuilding provisions that are specified in Magnuson to rebuild within ten years, you can look on page 2 of the decision document, where the council is considering action. Those are the OFLs and ABCs for a ten-year rebuilding plan that the South Atlantic SSC recommended and the Gulf SSC concurred with.

My understanding is that the South Atlantic Council does things a little bit differently. They could choose to rebuild in a quicker time period and so within seven years and so these OFLs and ABCs could change slightly based on that rebuilding time and also they could change the level of risk, I guess, that they're willing to accept.

Right now, we don't have the final numbers I guess from them, but these are the numbers that cannot be exceeded, the ABCs that cannot be exceeded, for this stock currently and so one of the things we're looking at is how to manage this stock. As Dr. Barbieri mentioned, most of this is in the South Atlantic's jurisdiction. I think landings from 2004 to 2012, between 4 and 13 percent has been estimated to come from the Gulf Council's jurisdiction for hogfish for this particular stock.

This just looks at different ways to manage it. If we go to page 3, the South Atlantic Council is considered to be the true lead and they feel like this may miss some of this portion of the stock unless we essentially give them these fish and maybe set up a management boundary based on the geographic range of this particular stock.

We could also delegate management of hogfish for the Gulf Council to the South Atlantic Council and we could also delegate -- Both the Gulf and South Atlantic could delegate management of this stock to the State of Florida and we could consider putting it in the South Florida Amendment.

One problem with that though is the rebuilding plan and the State of Florida would have to come up with a rebuilding plan for that in order for that to be accomplished and so one of the options that I think the South Atlantic Council is really seriously considering is establishing a -- Have this multijurisdictional ABC after we get the finalized numbers and then the Gulf would adopt some recreational and commercial management measures in a defined area and that area could be the

Monroe County line on the west coast of Florida to the council boundary and we could have the rebuilding plans set up for that specific area or it could be the Shark Point, which is about 25 degrees, 23 minutes North latitude on the west coast, to the council boundary.

These are things to think about. The other thing we could do is establish a jurisdictional apportionment for this stock, based on historical landings, which is what we're currently doing for mutton snapper and for yellowtail snapper between the Gulf and South Atlantic. However, this is a very small stock and so after we did that, you are probably dealing with a very small apportionment and having to come up with a rebuilding plan could be quite cumbersome if we do it that way.

These are just things to think about when we're moving forward and getting ready for our joint meeting on Thursday. If you go to page 5 of the decision document, Action 1 looks at modifying the Gulf reef fish and South Atlantic snapper grouper management plans to define the geographic range for this East Florida Keys stock and they essentially are going to modify their management unit to I guess define these areas and so I guess we would focus on Alternative 3 and think about if we want to set up a boundary, use our current council boundary, establish the Monroe/Collier County line, or the Shark Point line. We would take their regulations and they would establish a rebuilding plan and we would say where those would be applied.

CHAIRMAN GREENE: Thank you. Any comments by the committee on this hogfish document?

MS. BADEMAN: Do we need to do anything with this now or this is just a heads-up for Thursday?

CHAIRMAN GREENE: Well, I don't know. Part of the hogfish quota that was exceeding the ACL, I thought maybe that was getting at this, but I may be incorrect. Dr. Simmons, is there anything that we need to do with this document right now before Thursday or what is your advice?

DR. SIMMONS: If you have some ideas or something in mind on how you would like to move forward, that would probably be good to put it down, so we have something in front of us for Thursday. If we're not there yet, just think about it and that would be great as well.

DR. CRABTREE: Given how little of this east Florida stock is really in our jurisdiction, it seems to me what the best thing

to do would be for us to modify our management unit to just include the west Florida stock and then we just don't manage that east Florida south and then the Secretary could designate the South Atlantic Council as managing that south Florida stock and let it be their problem.

It's kind of like when we took Nassau grouper out of our FMU and then we just turned it over and let the South Atlantic Council manage it. That seems, to me, to be the easiest thing to do, is just let them have it.

CHAIRMAN GREENE: Sounds good.

MS. BADEMAN: So would that be -- Well, that's not really -- I hear what you're saying, Roy, and I think it makes sense, but it doesn't really seem to be one of the options on the list and do we need to add that as an option to our list here, just so that we can tee that up on Thursday? It's not really delegation, I guess.

DR. CRABTREE: A council cannot delegate to another council. Delegation can only be to a state, but I think that's the general idea behind Number 2, but it's not a delegation under the statute.

EXECUTIVE DIRECTOR GREGORY: When you said Number 2, do you mean Alternative 2?

DR. CRABTREE: I am looking at options for management authority on page 3. It's just not worded properly. It's not a delegation.

EXECUTIVE DIRECTOR GREGORY: Okay and so we would need a boundary of what that South Florida stock is to some extent, wouldn't we? Until we have that, either we just draw an arbitrary line like the option on page 5 or 6 has.

DR. CRABTREE: I think you're right that we would have to have a line and I guess what this talks about is the Monroe/Collier line and so anything south of that is the east Florida stock and anything north is the west coast stock and it seems to me that when we defined our west coast stock in the FMP that we would define it that way and then when the Secretary wrote the letter to the South Atlantic saying you're going to manage this east Florida stock, it would define it as it means any fish below this, because you would have to have some operational way to tell.

DR. SIMMONS: Okay. I think that would be good and so the correct language would be the Gulf Council wouldn't delegate, but they would remove this stock from our FMU and that's what we would --

DR. CRABTREE: Well, it's not in our FMU. I mean what we have now is just hogfish and so we're going to have to change our FMU to define the stocks and the South Atlantic is going to have to change theirs to separately define the south Florida and then their whatever it's called, Carolina.

We're all going to have to change and respecify the stocks in it and then we just wouldn't add this South Florida stock to our FMU and then NMFS would just delegate the South Atlantic Council as managing that south Florida stock throughout its range, which we would just have to define as geographically means this. I think that all works, but I would have to ask Mara to think it all through.

MS. BADEMAN: I was just going to say whatever line we settle on here, I feel like it should be the same line that we use -- If we use a line for some of the South Florida actions, a couple of them were at least potentially area-specific.

DR. CRABTREE: Does the assessment say where the break is? I mean we would need to look at that, because if the assessment indicates this is the stock boundary, then that's probably where it would need to be.

CHAIRMAN GREENE: Good point. Go ahead, Mr. Williams.

MR. WILLIAMS: I was wondering if we ought to approve a motion here, just a general motion, that does -- A motion about what Roy has talked about in order to have this teed up for the meeting on Thursday to just move through it a little faster. Do you think that if we approved a motion to remove hogfish from our management unit in South Florida that might make it go a little faster?

CHAIRMAN GREENE: Would that require a framework or what is the necessary vehicle?

DR. CRABTREE: I think you need a plan amendment to add things to the fishery management unit and so we would be removing hogfish from our fishery management unit and then we would be adding -- Is it called the west coast stock of hogfish? I guess whatever it is, we would remove hogfish and add the west coast stock of hogfish to our management unit. I guess it would be to

add the west coast hogfish stock to the management unit.

CHAIRMAN GREENE: We've got a motion we're trying to get on the board.

MR. ATRAN: If you want to be accurate with what Florida uses, say the West Florida Shelf stock.

CHAIRMAN GREENE: Okay. I'm not sure who the maker of the motion was, but --

DR. CRABTREE: I don't think you need "southwest Florida" in there and just remove hogfish from the Gulf FMU and add the West Florida Shelf hogfish stock. Then I guess you could say the council's intent is to allow the South Atlantic Council to manage the southeast Florida stock, if you wanted to be clear with it. So it's the council's intent --

DR. SIMMONS: Dr. Crabtree, shouldn't we say to remove the -- Should it be East Florida/Florida Keys hogfish from the Gulf FMU?

DR. CRABTREE: That's not in the Gulf FMU. Only hogfish is in the FMU, right?

DR. SIMMONS: Couldn't we just modify the geographic range and define the stocks in our current FMU and not -- We have to remove it in order to give it to the South Atlantic? I see what you're saying.

DR. CRABTREE: What we need to do right now is just get our intent down and then you guys figure out exactly how to word it and how to do it, but I think I would add to this motion that it's our intent to allow the South Atlantic Council to manage the East Florida/Florida Keys stock. I think that captures what we're trying to do. Now, exactly how you word all of it and do it is something that I think staff will have to figure out.

MR. WILLIAMS: That's your motion and I'm going to second it.

DR. CRABTREE: Okay. **I make that motion.**

CHAIRMAN GREENE: Thank you. Mr. Williams seconds it. Okay. **Any objection to the motion on the board? Seeing no objections, the motion carries.** Anything else we need to do before we leave this document?

EXECUTIVE DIRECTOR GREGORY: Roy, what would be the problem with

just saying we agree to go along with the rebuilding plan the South Atlantic Council implements for hogfish in the South Florida area for our jurisdiction?

DR. CRABTREE: You can, but then you're going to have to modify your plan and put in place a rebuilding plan and put all those things in, I think. I think you can do it that way, but it just seems like it would be more complicated.

EXECUTIVE DIRECTOR GREGORY: I mean that's what we're doing with the other species.

DR. CRABTREE: Look how complicated that has become.

EXECUTIVE DIRECTOR GREGORY: Touché.

CHAIRMAN GREENE: Anything else? I see Mr. Boyd pointing and, Dr. Simmons, does that give you everything you need?

DR. SIMMONS: Yes, thank you.

CHAIRMAN GREENE: With that, we're going to wrap up the hogfish and move into the next agenda item, which is going to be Updated Draft Amendment 28, Red Snapper Allocation, Tab B, Number 7, and this would be Dr. Diagne.

UPDATED DRAFT AMENDMENT 28 - RED SNAPPER ALLOCATION

DR. DIAGNE: Thank you, Mr. Chair, and good afternoon. As mentioned, the updated amendment for red snapper allocation is available at Tab B, Number 7. Let me first mention that the draft EIS was filed on May 29 and the comment period will run until July 20.

Essentially for this update, we simply reflected your choice of a preferred alternative, which as you recall is now Preferred Alternative 8. The other things that we've done in this document was to explicitly state the ACLs and ACT when applicable for the commercial and recreational sectors, recognizing the fact also that you approved the Amendment 40 and so we had to indicate on this document the ACLs and ACTs for the two components that were established.

The document still includes the nine alternatives that were discussed and apart from the modifications that I just mentioned, it is essentially the same document. I think that will be a very short review of this updated draft DEIS for Amendment 28. Thank you.

CHAIRMAN GREENE: Okay. We are on Draft Amendment 28 and does anybody have anything they want to offer or change? Any discussion?

MR. MYRON FISCHER: What is our schedule and schedule for completion?

DR. CRABTREE: We published the DEIS and that comment period began on June 20 and runs through July 20 and so it seems to me you could take final action on this in August.

CHAIRMAN GREENE: Okay. Anybody else? Seeing no hands, I guess we'll move on to the next agenda item, Draft Framework Action to Allow National Marine Fisheries Service to Withhold a Portion of the Commercial Red Snapper Quota in 2016, Review Draft Framework Action, Tab B, Number 8, and Dr. Diagne.

DRAFT FRAMEWORK ACTION TO ALLOW NMFS TO WITHHOLD A PORTION OF THE COMMERCIAL RED SNAPPER QUOTA IN 2016 REVIEW DRAFT FRAMEWORK ACTION

DR. DIAGNE: Thank you. For this framework action, as you recall, should you take final action for 28 as scheduled at the next council meeting, there is a likelihood that Amendment 28 will be implemented after the first of the year and so to allow the council to make the adjustments, we were directed to prepare this framework action, which essentially would retain a portion of the commercial red snapper quota to allow you to make the adjustments based on your preferred alternatives in Amendment 28.

This is a very simple framework action. It has one action. It has status quo and under status quo, on January 1, 2016, we would essentially distribute 100 percent of the commercial red snapper quota to shareholders.

Alternative 2 here would retain up to 34.7 percent of the commercial quota. The exact percentage will be determined as soon as you take final action on 28. If I may, I would ask you to look at the table on page 12, which is Table 2.2, and over there, the percentages that would have to be withheld based on the alternatives that we have are indicated relative to the status quo.

Alternative 2 is written as stated because under Alternative 6, even though it is not your preferred, but the maximum that could possibly result from Amendment 28 is 34.7 percent of the

commercial quota relative to status quo and so that is why the alternative is written as such, to be consistent with 28, if you would, but as soon as you take final action for 28, we will know the exact percentage and based on your preferred alternative, we would have to retain 4.9 percent of the commercial quota to allow you the flexibility of making the adjustments to the quotas after January 1, 2016, meaning have the allocation, the new allocations, be effective during 2016, rather than waiting until 2017. Again, it's a simple one action framework action and having those percentages to allow that flexibility. Thank you.

CHAIRMAN GREENE: Thank you, Dr. Diagne. Does everybody understand what's going on and any questions or comments?

MR. WALKER: I was just kind of wondering why you're holding back 34.7 when the preferred alternative is nowhere near that right now. It just seems kind of a large amount to hold back.

DR. DIAGNE: Yes, Mr. Walker. The alternative says to withhold up to 34.7 and that is simply written like that to be consistent with 28. Even though your preferred alternative is Preferred Alternative 8, let's say 4.9 percent, if we were to write this alternative and say, for example, withhold up to 10 percent of the commercial quota and then in August the council decided to change its mind and picked Alternative 6, then we wouldn't be in a position of being able to make the adjustment and so to be consistent with Amendment 28, we had to recognize the maximum that the council could potentially withhold, but, again, the rest of the alternative indicates that the exact percentage will be determined as soon as you take final action on 28 and as of today, that would be 4.9 percent.

MS. BADEMAN: Let's pretend we approve Amendment 28 and we do reallocate something. Assane, would we actually then go to this document and put the exact percentage in there as a council or is that something that you would do automatically as staff?

DR. DIAGNE: The way in which the alternative is written, that would be done automatically, because it says that the exact percentage would be determined based on your preferred alternative.

MS. BOSARGE: Assane, I just wondered -- Obviously this is a very streamlined document, but do we know at what speed the commercial sector reaches that quota? In other words, in June of that year have they caught 75 percent of their quota? It seems like it's fairly -- I won't say evenly distributed

throughout the year, but I am just wondering what that speed looks like.

DR. DIAGNE: I would have to look at the landing records let's say online, on the website, that are provided, but it depends on the year. Let's say, for example, you would have to consider the fluctuations of the variations in price and when is Lent, for example. Those sorts of things would have an impact on the speed of harvest.

CHAIRMAN GREENE: Any other comments?

MR. ANSON: Assane, I stepped out for a little bit and didn't hear the whole presentation, but this is -- There is a trigger in here to withhold the 34.7 percent on the assumption of 28 and so just throwing out some hypotheticals here and what if the council doesn't move forward with 28 and make a decision so that it would impact the 2016 allocations?

I mean there is nothing in here that says pending decision by the council by such and such a date and if not that 100 percent gets released and that type of thing. I guess I was trying to see what the thought process was on that.

DR. DIAGNE: Thank you, Mr. Anson. I think on page 11 of the framework action we state that the amount withheld would be added to the 2016 recreational red snapper quota once the Secretary approves Amendment 28 for implementation. That is the first part.

The second part is the amount withheld would be returned to IFQ shareholders if the council elects to not pursue 28 or if the Secretary disapproves 28.

MS. LEVY: I think that the plan is to, if you are looking to take final action on 28 at the next meeting, to do that first and once you've done that, then take final action on this framework. You are not meant to take final action today on the framework or do anything with it at this point.

CHAIRMAN GREENE: If we approve it in August for final action, will the Secretary approve it before December 31?

MS. LEVY: It's a framework action and so it doesn't have secretarial approval, per se. It just goes through the NMFS regulatory process and so there is no FMP amendment approval process and so that's why the Fisheries Service can implement the framework before January 1 to withhold that piece of the

quota even though they might not be able to implement Amendment 28 before the first of the year. This would be able to get implemented before the first of the year.

CHAIRMAN GREENE: Okay and so I kind of see it as an A and B thing or a trigger. So we're going to have this set up before 28 is approved by the Secretary and if it is approved, then we have the mechanism to withhold the fish. If it's not approved, for whatever reason, then 100 percent is redistributed and is that correct?

MS. LEVY: Right and so the Fisheries Service would withhold the amount that's necessary to implement Amendment 28 and if it's approved, it would go to the recreational sector, because that's what Amendment 28 would do. If it were disapproved, then the Fisheries Service would release the rest of that back to the commercial sector.

CHAIRMAN GREENE: When would that happen? Upon the Secretary's findings that's when that would happen?

MS. LEVY: Right, February probably or in the beginning of year if you take final action in August.

CHAIRMAN GREENE: Okay. Fair enough. Is everybody good with all of that? Any more discussion? I don't see any more hands and so I guess that wraps up Agenda Item Number X. Next is Revised Alternatives, Amendment 39, Regional Management of Recreational Red Snapper, Tab B, Number 9, and Dr. Lasseter.

REVISED ALTERNATIVES - AMENDMENT 39 - REGIONAL MANAGEMENT OF RECREATIONAL RED SNAPPER

DR. AVA LASSETER: Thank you, Mr. Chairman. We have brought the document to you for your review and further discussion. The plan is to bring you the complete document to the August meeting and we will have filed the DEIS before then. We had guidance from you at the previous meeting that you were considering taking final action after that time and so if we had the DEIS filed before the August meeting, you could potentially take final action in October.

We will review the actions and alternatives here and provide you opportunity for discussion after each one. Again, this is Tab B, Number 9 and Action 1 begins on page 8 and your current preferred alternative for this action is Alternative 3 and this would be to establish regional management using the conservation equivalency proposals that each region would be submitting to

NMFS for review.

Your other alternatives -- Alternative 2 was your previous preferred, which was delegation, and then you also have Alternative 4, which would incorporate an additional review of your conservational equivalency proposals before reaching NMFS, through a technical review committee.

Then, finally, we have Alternative 5 with some options for a sunset on regional management. Is there any discussion on this action?

CHAIRMAN GREENE: Anybody got any discussion? I am not seeing any discussion, Dr. Lasseter.

DR. LASSETER: I will just point out that we've put on page 13, in this Action 1, the CEP timeline that you reviewed at the last meeting and so it's now in the document. Moving on to Action 2, it begins on page 16 and this addresses how regional management would work together with sector separation.

I am going to request that we go on to page 19 to discuss Alternatives 1, 2, and 4 and then we'll come back to Alternative 3. This just visualizes it a little easier. Alternative 1 would be no action and so it would retain current federal management of recreational red snapper for the years 2015 to 2017. Separate ACLs will be established for the federal for-hire and the private angling components and so you can see in the top there the recreational ACL for these three years will be divided into two component ACLs. Under Alternative 1, from 2018 onward, the recreational ACL would be managed as a whole.

Alternative 2 is shown in the middle of the page and this alternative would essentially extend separate management of the two components of the recreational sector and thus, this amendment of regional management would apply to the private angling component only and you can see in the visualization that the recreational ACL would be divided into two component ACLs and then the private angling component ACL would be divided into regional ACLs and I used the current preferred alternative of five established regions to show each state as a region receiving its own regional ACL.

Then Alternative 4 would end sector separation at the time of implementing regional management. Therefore, this document would apply to the entire recreational sector and so under Alternative 4, the recreational ACL, which is our quota, would be divided into five regional ACLs for our preferred alternative

of five regions at present and so each one of those regional ACLs would cover both the private anglers and charter vessels within that state.

Let's go back to Alternative 3 and this one just got a little too unwieldy to even draw a visualization and so I wanted to explain a little bit about this first. This is your volunteer option that you requested for states or regions to continue sector separation at the regional level or not.

The previous version, the alternatives you saw had each state as an option under this alternative. We have removed those states as options from the council's decision, for the council to decide which states would do that, and we have moved that decision to within part of the region's conservation equivalency plan or their delegated management measures that they would be proposing, whichever alternative remains as preferred.

Under Alternative 3, sector separation would be extended and states and regions would decide if they choose to manage separately their private angling and for-hire components of the recreational sector or if they will manage only their private anglers.

The reason this gets a little more complicated is because we could have up to ten ACLs. We could have a regional ACL, a regional and component -- Component ACLs for each region. We would need to calculate how to divide each of those component allocations at the regional level, based on the equation used in sector separation, which was an average Gulf-wide, or using each state's regional proportion of landings for each of those components.

You can see how this gets a little bit tricky and we would need to figure out how we would calculate each of the regional components, either using the sector separation Gulf-wide allocation or that state's proportion. I am going to turn it over for any questions, because I think that was a mouthful and a little confusing.

MR. DIAZ: Thank you, Ava. I appreciate that explanation. If under Alternative 3 a state decided to do something other than the percentages from Amendment 40, would that cause some issues where it might trigger some NEPA -- Can you talk about that a little bit?

DR. LASSETER: A state or region would not be able -- If they declare their intent to manage both components, that state or

region would not be able to decide independently what proportion of their regional quota they would assign to each component.

In working through this alternative, the IPT is still figuring out how to calculate these regional component ACLs and in terms of which would come first. Do we divide the component into component quotas first or do we divide it into regional components first and then have to make the adjustment back to the federal for-hire component for those regions that are managing their private anglers only? I am not sure if I answered the question.

CHAIRMAN GREENE: Okay. Any other discussion? Anybody?

MR. LANCE ROBINSON: Ava, a question. Alternative 3, that assumes Amendment 40 continues in perpetuity?

DR. LASSETER: Okay and so Alternative 3, if we look at the -- There is a little table on 2.2.1 and so yes, Alternative 3, under regional management, applies to the private angling and for-hire components, but they would be managed under separate component ACLs and so yes, Alternative 3 would extend sector separation. Sector separation remains, but individual regions would decide whether or not they will manage both the components within their region or will manage only the private angling.

MR. ANSON: Going back to our discussion about the August timing, do we not need to select a preferred at this point, Mr. Chair or Ava?

DR. LASSETER: It's always advisable to have a preferred. However, I will point out that we have not written the effects analysis for this yet and we also did not intend to be bringing the complete document to this meeting and so we put together as much of it as we could and so I will actually defer to Mara. Since we don't have the effects analysis, I am not sure if it's better to have the preferred or not.

MS. LEVY: I always advise that you have an analysis of effects before you pick preferreds, but sometimes you decide you want to let people know what you're thinking and so it's really up to you.

MR. WILLIAMS: Ava, would you refresh my memory? Did the council add Alternative 3 or did you guys add it? Did we add this at a previous meeting?

DR. LASSETER: The council requested an alternative that allowed

a voluntary option for the states or regions to do sector separation and so this is the voluntary states that wanted to manage the separate sectors could do so and other regions would not be obligated to do so.

CHAIRMAN GREENE: Any more discussion?

MS. BADEMAN: Just to say that based on everything Ava said about Alternative 3, it looks like we're still missing a piece of the puzzle with that alternative anyway. It sounds like there's a lot that still needs to be worked out, which is -- I am not saying anything about you, but just before we -- If that's the direction people are interested in going, I think we need to figure out what exactly that means.

CHAIRMAN GREENE: Well, I agree, because if you have one state that wants to do it and four others that don't or vice versa, that's going to really weigh in to that cause and effect type of situation and I imagine that's going to be a tremendous workload, but any other discussion? Okay. Seeing no more hands, I guess we will wrap up Amendment 39.

DR. LASSETER: I'm sorry, but I will carry on with the next action.

CHAIRMAN GREENE: I'm sorry. Go ahead.

DR. LASSETER: That is the only action that we do not have a preferred alternative for. Action 3 is on page 20 and your current preferred alternative is to establish five regions representing each Gulf state, which may voluntarily form multi-state regions with adjacent states. You did change this to this preferred alternative at your last meeting. Previously, each region was going to be its own state, but this does allow each region the opportunity to join together with adjacent states.

I am just going to move on if there is no questions about that one. Action 4 begins on page 23 and Action 4 would modify the federal minimum size limit. Your current preferred alternative is 3, to reduce the federal minimum size limit to fifteen inches total length. I am going to stop here for a question.

MS. LEVY: I just have a question about the intent of this action as it relates to Action 1, which is what the states are allowed to modify, because this action says we're going to change the federal minimum size limit to fifteen inches and Alternative 1 says that states will provide size, bag, and season in their conservation equivalency plan.

Is the intent to still allow states to choose a size that is not fifteen inches and this would then just become the default if they don't have their conservation equivalency plan or is the intent to establish this fifteen-inch size limit and take that out of what the states are allowed to change?

CHAIRMAN GREENE: Good question. Anybody want to weigh in?

MR. FISCHER: I was going back and reading, but I think this originally we were not going to include size limits, but presently the states have different size limits in their regulations in state waters and we realized to accommodate all states that we would lower it to what the lowest is.

I don't remember what discussions took place thereafter about increasing size limits, because I know if we increase size limits that that could have an effect on quota and so I am going by memory, but I thought we put it established at a minimum of fifteen inches and whether we were going to allow the plan to go forward and allow other states -- It looks like a contradiction to have other size limits. Thank you all for defaulting this to me, but I don't have that pure answer of what the concept was at this stage, three or four years later. That would have to go back and just have a quick show of hands or Kevin looks like he can really enlighten us right now. Either that or he was mocking me for my lack of ability to answer this.

Where we are, we went back and forth on it and we do have in one alternative a minimum size of fifteen inches in Action Item 1 that does state that bag limits could be adjusted.

MS. LEVY: The reason I bring it up is because I think that from discussions that I've heard is that staff is reading it different ways, but the way that I read it, as it is currently written, under Action 1, under the conservation equivalency plans, states can pick a size limit and it's not necessarily fifteen inches.

However, we would modify the federal under Action 4, which would then end up being the default. That's the way I read it and that's the way I would advise staff to analyze it if they have to do an analysis for the next version. If that's incorrect and that's not how you want the analysis to be, to think about that and come back and let staff know, so that they don't come forward with this analysis that then is completely off base.

MR. FISCHER: If the council goes with a default of fifteen

inches, should we continue to have the phrase in Action Item 1 that states bag limits?

MS. LEVY: Do you mean size limits in Action 1?

MR. FISCHER: Excuse me. Size limits.

MS. LEVY: Well, I guess that depends on whether the intent is to allow the states to pick a different size limit. If that's still the intent and the fifteen inches is just for the default federal regulations, then that's how I read that. If the intent is to have that non-negotiable, states must have a fifteen-inch size limit in their conservation equivalency plan, then we need to change the wording of Action 1.

MR. FISCHER: Are you clear, Johnny?

CHAIRMAN GREENE: I am just trying to lead you, man. I ain't trying to sway you one way or the other.

MR. FISCHER: If you think it's something the committee should discuss, that's fine. Otherwise, maybe staff has all the information they need to move forward.

CHAIRMAN GREENE: Okay. Anybody got any other discussion on the fifteen-inch size limit? Okay. Seeing none, I guess --

MR. WILLIAMS: Does Ava understand what --

DR. LASSETER: My understanding is in line with Mara's. That's the way we've approached it here. You would be modifying the federal size limit and that will remain in the default regulations, which will apply if your conservation equivalency plan is not in effect, or delegation, depending on the track we go.

While the size limits are available for modification in Action 1, we have had a lot of discussion about the problems with regions modifying that and the implications that could create for the stock assessment and so I would think at the regional level, in developing your CEPs, you would want to think carefully about your size limit and I am not sure what the intent is. Are the regions intending to -- That are at sixteen inches now, do you prefer to stay there? I don't have much feedback from the regions on that.

I am going to, if there is no further discussion, move on to Action 5, which starts on page 25. This is the closures in the

Gulf EEZ. We did remove the one alternative similar to the earlier action that had options for each state, because it would not be appropriate for the council to decide for each state what should or should not happen.

The preferred alternative is Number 2, a region may establish closed areas within the EEZ adjacent to their region in which the recreational harvest of red snapper is prohibited. It's not necessary to select an option in addition to the alternative, but there are options that are available and I will turn -- This action has created some confusion and I think Dr. Crabtree has expressed some concern about this and so I will open this up for discussion.

CHAIRMAN GREENE: Discussion?

MR. PERRET: Out of curiosity, if we have regional management and so we're delegating to the states to do certain things with this fishery and if a state should decide to close its area, the EEZ, off their state, who is then responsible for law enforcement? Is it the state? Is it the state and the federal government or who will be the fish cops?

DR. LASSETER: Is that directed to me? Maybe I can ask Commander Brand, but my understanding also is that -- I wouldn't think that enforcement would change. We may need additional enforcement, but let me turn it over to Commander Brand.

MR. PERRET: Remember, it's only if the state decides to close its EEZ.

DR. CRABTREE: Remember that is isn't delegation anymore and so if that's what the state wants to do, they're going to come to you as a council and ask you to do it and you're going to have to go through a framework or something to do it and then it's going to be a federal closure and it will be enforced by the same parties that enforce things now. I still maintain this is kind of a crazy action, but --

MR. WILLIAMS: Could somebody give me the -- I don't recall why we stuck this in there. Is this coming from one of the larger states like Texas or Florida with a long north/south coastline or do you recall, Ava, or does anybody recall how we ended up with this?

DR. LASSETER: In the first version of the document that we had, the way we had it structured was in one action there was several alternatives and in each alternative -- I think we had eight

alternatives and each alternative, if selected, would allow the regions to enact that change at the regional level and so we had one for bag limit and we had one for size limits and we had one for the season dates.

Those are the ones that the IPT had started with, because those are the traditional management tools, management measures. The council and committees then added some additional alternatives and we ended up with everything selected as preferred in that action.

One of those was to allow a state or region to close the EEZ adjacent to its region. Originally it said allow a region to close the EEZ adjacent to its region only to vessels fishing from that state. Ms. Levy determined that that would pose a problem with National Standard 4, because we could not have closures applying just to residents of a particular state when it would be open to fishers of other states.

We did have to remove that and so the intent was that -- This alternative was promulgated first by Mr. Riechers to allow them to have the season open and closed in state and federal waters as worked best for them, but in changing the wording and having to remove this only applying to vessels within your region, the implication of this is if a region does close the EEZ adjacent to their region, no recreational vessels from any state can fish for red snapper in that area.

As we have been reworking this -- We revised this document, the document structure, and this alternative, this idea, needed to be analyzed separately. It was something different and we have already analyzed the bag limit and size limit and seasons through different amendments and so those could be included in Amendment 1. We have regulations for those in place and those are the things that the regions can identify for modification in their CEPs. Here, we're just looking at the spatial closure in a separate action independently.

LCDR JASON BRAND: This area closure would be probably a little easier if we determined how many areas they could close, because if a particular region could close numerous areas within an EEZ, it makes it nearly impossible to enforce that, especially when you're only dealing with the harvest of red snapper, because the person could just state that they caught it in an open area next to the closed area and so trying to be a little bit more specific in these closures would help us.

CHAIRMAN GREENE: I certainly concur.

MR. DIAZ: Either Dr. Crabtree or Dr. Lasseter -- Roy, you just made a statement that I just haven't read in this document and so I mean if what you're saying is accurate, we probably ought to put it in the document, but -- I read through this thing and I might have missed it and so correct me if I'm wrong, but it looks like the authority is given to the region to close that area adjacent to their state and so I just didn't see it.

If we do indeed have to come back to the council to close an area adjacent to the state, I mean that needs to be really clear and is it in the document, Ava?

DR. LASSETER: I think Dr. Crabtree was responding to Corky's comment about delegation. Corky referred to delegation and our current preferred alternative is the conservation equivalency plan, but I am going to let Mara speak.

MS. LEVY: I think this whole closure thing has been confusing from the beginning and it's gotten even more confusing when you throw in the idea of conservation equivalency plans. It's one thing if you have a delegation and the council is delegating certain authority to the states to do X, Y, and Z, including potential closures.

It's another thing when you have the states proposing conservation equivalency plans and I am not sure that we've thought through very carefully how you would propose a closure and how we would implement that in the regulations.

With bag limits, size limits, and season, we're sort of saying, I guess out front, that we have this default -- I mean I guess we would have to take your plans and put out a notice as to what the closures were, but I don't think we've fully thought through how that would work for the conservation equivalency plan, which I think was Dr. Crabtree's sort of instinct to say the council would have to do something with respect to the closure. If you're really interested in going down this road, I think we would have to think more about how that would be accomplished and what the process would be.

MS. BADEMAN: For what it's worth, I think we should continue to look at this. The last time we talked about this action, I was under the impression that if a state wanted to break up their state into regions, like a north or south or whatever, that we wouldn't need this, but the way Alternative 2 is written and described in the document, we would need Preferred Alternative 2 in order to do that and so I am definitely still interested in

pursuing this and ironing out details as to how a state would need to go about doing this.

MR. ANSON: I am hearing two different things from Mara and Dr. Crabtree relative to this particular action. I hear from Mara that it's the process that we've got to nail down, but the end result we can still achieve, but yet I hear from Dr. Crabtree that he's unsure of the end result and whether or not that can be implemented.

I am a little confused here as what guidance or what you all are saying. Dr. Crabtree, you just don't see how it's possible to shut down a portion of the EEZ off a state or --

DR. CRABTREE: No, I see how it's possible, but I think it's going to require a NEPA analysis and a rulemaking, right? That will mean essentially a framework action that the council would have to approve to do it, unless they can come up with some other way to get there.

MR. ANSON: Okay. I just misunderstood what you were saying then.

MS. LEVY: I think the attempt to try and define these different options in here was so that we could do a NEPA analysis on these type of alternatives and hopefully have the ultimate analysis in such a way that if the state did want to close something that we would have analyzed it, but with the possibility that we may not always capture that and so it might require further analysis and further NEPA -- The NEPA part we were trying to take care of, but not entirely sure that it would cover everything.

Then, like I said, I don't think we've fully thought through what the regulatory process is for the closure piece of it and so I think there's just more process that needs to be thought about about how this would happen.

DR. CRABTREE: When you look at some of the alternatives that are on there, I mean how could you analyze what would happen if you allowed harvest within twenty nautical miles? I don't think there is any analytical basis for how you would calculate a conservation equivalency on that.

I mean we have data on state water harvest and EEZ harvest, but we don't have anything outside of that and so it's just very complicated and hard for me to figure out exactly how this would work, Kevin.

CHAIRMAN GREENE: Any other discussion? I have one question. How would this affect the stock assessments when you look at areas opened and closed and fishing and effort and different things? Would that have an impact on the stock assessment as well?

DR. CRABTREE: I would think it certainly could, because you potentially are changing the selectivities and the size fish that are being caught. If you confine all the harvest to within nine nautical miles, you are going to catch smaller fish, but exactly how that would happen, I don't know.

CHAIRMAN GREENE: Thank you. Any more comments relative to Action 5? Okay, Dr. Lasseter.

DR. LASSETER: Moving on to Action 6, it begins on page 28 and you do have preferred alternatives selected here, Preferred Alternative 5 and 6, Options a and b, which would be to apportion -- I'm sorry, but this action is apportioning the recreational ACL, the quota, among the regions and the Preferred Alternative 5 would apportion the recreational sector ACL or component ACLs, if appropriate, among the regions based on 50 percent -- Based on half of the average historical landings for the longest time series, 1986 to 2013 is from the previous version, and 50 percent of average historical landings for the years 2006 to 2013. We did not change these alternatives to include 2014 and we did leave 2013.

Then also Preferred Alternative 6 is in calculating the regional apportionments above, exclude the years 2006 and 2010 landings from that calculation. In Amendment 40, only one of those years is excluded. 2010 is excluded and 2006 is not excluded from the sector separation equation.

I will add also on Alternative 8 here that at the last council meeting you passed a motion to formally include this alternative in the document and we have provided the analysis for the resulting apportionments and they're in Table 2.6.6 on page 32. That's for Alternative 8.

This alternative would apportion the recreational sector ACL such that each region's initial allocation provides for an equivalent number of fishing days and you can see it really shifts the allocation towards the east from the west and so I will turn it over to the committee for discussion.

CHAIRMAN GREENE: Is there committee discussion?

MS. BADEMAN: Just a question. I know last time when we talked about this document that we had at least some preliminary estimates of what this would look like in terms of days and is it possible to get something like that for all of these alternatives? I know it's a lot, because there is a lot of tables and alternatives in here, but I think it would help put this into context.

DR. LASSETER: I think with the -- I'm sorry, but I'm not really able to answer that question. I know the analysis was provided to me by the SERO and so I could get back with you on that and see if we could get an estimate of days.

CHAIRMAN GREENE: Any other discussion?

DR. CRABTREE: One thing I think you're going to need in the document -- I mean it's apparent from looking at that table and things that the current preferred alternative for state-by-state allocations shifts fish to the western Gulf relative to what has been going on for the last few years and somewhere I think you're going to have to explain why is it that you want to shift fish to the western Gulf and I don't know that there's really anything in here that gets at that, but why is it fair and equitable to do that, because you know you can look at the table with those percentages that things would have to change to give you an equal number of days and it's pretty apparent that, all things equal, Texas and Louisiana are going to get substantially longer seasons than Alabama and Florida. I think you're going to need to explain why it is that's a good outcome and what you're trying to do.

CHAIRMAN GREENE: Thank you. Any discussion? Okay.

MR. FISCHER: Sure, Roy, and the authors of this would have to incorporate that language, but it should be the same language that was used in Amendment 40, because we shifted the current catch of recreational, the for-hire versus private, and what it was in the last couple of years, we shifted that back to the for-hire sector and so it would be the same type of language.

DR. CRABTREE: Except it's a different situation. In that case, that shift had occurred in the last few years because of the more lenient state seasons and the fact that the federally-permitted vessels aren't allowed to fish in state waters and so their season was getting shorter and the private catch was going up because of all the state water catches and the council concluded that that wasn't fair and equitable and they shifted that back a little bit to provide what was determined to be fair

and equitable access for anglers who fish on for-hire vessels and so that was the rationale there. I don't see how that rationale applies here, because this is a different situation.

MR. FISCHER: Sure and it may not be the exact rationale, but it does include historical catch and historical catch is what drives most all of our amendments. It also weighs 50 percent to the more recent years and so it does look like it's a fair weighting.

DR. CRABTREE: I understand that, but that doesn't get to the essence of the question of -- So your intent is to shift the fishery more towards the western Gulf and I guess what I'm getting from you is it's because you believe somehow the western Gulf has lost out over time and you want to shift it back some, but I don't think there's anything that reflects any of that in the document and I am not trying to second guess why you're doing it or whether it's the right thing to do or not the right thing to do.

That's something you're going to have to figure out, but I really don't think there is anything in here that addresses it, because I don't think we really had numbers that showed it so much until this particular analysis was done, but clearly I think fishers in Alabama and Florida will see it differently than how fishermen in Louisiana and Texas may see it.

MR. ANSON: Even though Lance is here, he probably was not part of the conversation and comments that Robin had given when we had some of this discussion meetings ago and so speaking for Robin, some of the points that he had made was that there was -- Because of the seasons being designated in the summertime versus the historical, that was outside of their peak fishing activity for their headboat/charterboat fleets and they had more of a winter fishery and so that excluded that effort from having access when the seasons went to the summertime.

He also mentioned something about weather and that weather is a little bit more windy and less conducive to fishing during the summertime, whereas in the eastern Gulf the weather is much calmer and so those were some of the points that he had brought up and I am just repeating them here to add and to give to staff.

CHAIRMAN GREENE: Okay. Any more discussion? Okay, Dr. Lasseter.

DR. LASSETER: Thank you, Mr. Chairman. Moving on to our final

action in the document, Action 7 begins on page 33 and this action addresses post-season accountability measures and your current preferred alternative is to -- If the combined recreational landings exceed the recreational sector ACL, so the overall quota, reduce in the following year the regional ACL of any region that exceeded its regional ACL by the full amount of the region's overage in the prior fishing year. The recreational ACTs will be adjusted to reflect the buffer thereafter.

Then you have Alternative 3 would apply the overage adjustment to the component ACL, to the component that exceeds its component ACL. Alternative 4 combines the two and would apply the overage adjustment to the regional component that exceeds its regional component ACL and so it's the most specific to whichever area or component has exceeded its part of the quota. Any discussion on this action?

CHAIRMAN GREENE: I am not seeing any, but I have one question. Under Preferred Alternative 2, while red snapper are overfished, and then in parentheses you have "based on the most recent Status of U.S. Fisheries Report to Congress" and how often does that happen? Is that a yearly or monthly or biannually or how does that work?

DR. LASSETER: This is an annual report and this language was put in to reflect the language that was used in the alternatives for the framework action that established the accountability measures and so that is how -- It's to clarify how NMFS will be determining whether or not snapper are overfished. They will use that report that comes out and it is an annual report and I can't remember when it actually comes out. Maybe one of NMFS staff knows for sure.

CHAIRMAN GREENE: Thank you. Any other discussion? I am not seeing anybody. Go ahead, Dr. Lasseter.

DR. LASSETER: That completes the actions in this amendment and the IPT is just looking for some guidance for your intended direction and timeline for the amendment. Is it still your intent that we should have the DEIS analysis all complete before the next council meeting or what would you like us to do?

CHAIRMAN GREENE: Okay. Staff is asking us for some direction and has anybody got anything they want to offer?

MR. ANSON: I mean we're two months away from the next meeting, Ava, and is that something doable or is staff going to just be

that overwhelmed and taxed in trying to deal with everything else that it's impossible and maybe October is better?

I mean I would like to move it along and keep it on track as quick as possible. I am not on your committee, but I am just adding my two-cents and so I just was curious to know the workload issue and such relative to the next meeting and having it accomplished before then.

DR. LASSETER: After the last council meeting, it was our understanding for the August timeline and so we have made writing assignments and we do expect to have it completed. Then we were requested to bring this back for discussion and so we were more wanting to check in with you.

Now in reviewing some of these actions and alternatives, it does sound like we need to flesh some things out and bring them back to you and so I think it would be best for us to bring it to you in August. I am concerned about our workload and not so much with this amendment, but it's all of the other ones together, but right now we have the writing assignments out and we were planning to bring this to you in August, unless you would rather have us work on something else.

CHAIRMAN GREENE: Okay. Anybody else want to offer staff any more direction or guidance? I am not seeing any and I guess we will move on. Chairman Anson, that concludes what we have on the agenda for today. No? Wait a minute. We've got a fifteen-minute break there and then two more items. Okay. Before we start Amendment 36, we are ahead of schedule and why don't we go ahead and take a fifteen-minute break and we will pick back up with Amendment 36 about ten minutes after three.

(Whereupon, a brief recess was taken.)

CHAIRMAN GREENE: Go ahead, Mr. Atran.

MR. ATRAN: I just wanted to say a couple of quick things about mutton snapper and hogfish. Since we do have stock assessments and we have new ABCs on those, although the committee hasn't made any motions -- I don't know if the council will, but we will have to start on some regulatory actions to implement ACLs based upon those new ABCs.

In the case of mutton snapper, that should be fairly straightforward. In the case of hogfish, because we are defining a new stock basically, the West Florida Shelf stock, we're probably going to need a plan amendment, because we're

going to define a new stock and probably new status determination criteria and so hogfish will probably require a full plan amendment and mutton snapper we can implement new ACLs via a framework action and whether the council makes a motion or not to begin those actions, we have to do it anyway and so we probably will begin the process.

CHAIRMAN GREENE: Okay and so I think I heard staff asking us for a motion for a hogfish plan amendment.

MS. LEVY: You did make the prior motion to remove the hogfish from the FMU and put the new one in and we talked about that we would decide how that would happen and yes, it needs to be a plan amendment, but I think you sort of covered what you want to do with the hogfish, but maybe not.

MS. BADEMAN: I think we have to add the catch limits in there too for the Western Shelf stock and so would we do that in the same document or would we want to do that in a separate document?

MS. LEVY: My vision, and we didn't talk about the details because we said we would have to work it out, was that you do a plan amendment and you need to add the stock and then you need to have all the things that go with it, which is the status determination criteria and the ACLs and the AMs and all of that stuff.

CHAIRMAN GREENE: Okay. Yes, we are looking for a motion.

MS. BADEMAN: I will move that the committee recommend that the council initiate a plan amendment to change management for hogfish and that would include breaking up the stock and setting ACLs, among other things.

CHAIRMAN GREENE: Let's help her get it on the board. We probably need a little help with the --

MS. BADEMAN: Change the regulations or management.

MR. ATRAN: To define the West Florida --

MS. BADEMAN: To define the West Florida stock of hogfish.

MR. ATRAN: With associated --

MS. BADEMAN: With associated management.

MR. ATRAN: Instead of saying "to change the regulations for hogfish", say "to define a West Florida Shelf hogfish stock with associated status determination criteria and ACLs".

CHAIRMAN GREENE: Ms. Bademan, is that your motion? Is there a second for this motion?

MR. DIAZ: Second.

CHAIRMAN GREENE: It's seconded by Mr. Diaz. We've had discussion. **Is there any opposition to the motion? Seeing no opposition, the motion carries.** Mr. Atran, does that complete what you needed?

MR. ATRAN: Yes and as I said, I don't think it really needs a motion, but we are also going to begin work on a framework action to implement ACL adjustments for our apportionment of the mutton snapper stock and that would be 18 percent of the ABC.

CHAIRMAN GREENE: Okay. That brings us back to where we were before the break, which would be Item Number XII, Scoping Summaries, Amendment 36, Red Snapper IFQ Modifications, Tab B, Number 10(a). The first item is Scoping Workshop Summaries and then followed by Committee Recommendations and so with that, I will turn it to Dr. Lasseter.

SCOPING SUMMARIES - AMENDMENT 36 - RED SNAPPER IFQ MODIFICATIONS

DR. LASSETER: Apologies, but actually I should have made that a little more clear. The Tab B, Number 10(a) is the scoping document, which you have seen several times. We have put that in for background information and the Tab B, Number 10(b) is the scoping workshop summary document, which was also included in your briefing book last time.

Just before the last council meeting, we finished the scoping summaries and so you weren't afforded much time to review them and so we did put them in the document again, but we did provide the summaries at the last meeting.

Unfortunately, we ran out of time in both committee and full council at the last meeting to fully address the items from the scoping document and so what we're looking to do today is to review all of those items from the scoping document and get some guidance as to which of those items we should retain and develop in an options paper and which items we should remove from further consideration.

There is a worksheet up here for us to work through and a couple of notes first. Just a quick refresh on some of the IFQ program terms. Whenever we are talking about a share here, we are talking about a percentage of the red snapper commercial quota. Allocation, IFQ allocation, refers to the pounds of red snapper that are represented by those shares and so allocation is an annual allotment of pounds that corresponds with the shares, which is a proportion of the quota. Share is always proportion and allocation is always pounds.

Another point is as we go through this list, because there is so many, there is like twenty-five items, I would suggest, rather than make a motion for each item, if there is any item on each of these pages that the committee wishes to remove that you make a motion just to remove that item and then staff will assume that the items that remain will remain for further development into an options paper. I think that will just make it go a little smoother.

Let's begin on the first page. These are each grouped together thematically in categories and so these three items addressed program eligibility.

I'm sorry, but one more point here. The red text -- We are looking for two decisions to be made, whether or not to develop each of them in the options paper, each of the items, and, again, there would be a motion to remove them, and any text highlighted in red are questions the IPT has for the committee to help us further understand your rationale and help us develop the range of alternatives that would be appropriate to that potential action.

For this one, we have three items that address program eligibility and they pertain to possession of a commercial reef fish permit and so the first one would restrict future transfer of shares to only shareholder accounts that hold a valid commercial reef fish permit.

This was a provision that for the first five years of the program only holders of a commercial reef fish permit could buy shares and after five years, it opened up to any resident alien, U.S. citizen, et cetera, could buy and participate in the program.

The next item is to allow accounts with shares, but without a commercial reef fish permit, to harvest the allocation associated with those shares and since this was initially put on this list, the council has expressed its intent in a motion not

to pursue intersector trading and so I think that should be a consideration for this item.

Then, finally, on this page, limit the amount of shares and/or allocation that non-permitted IFQ accounts may possess, referring to IFQ shareholder accounts that are not associated with a commercial reef fish permit.

This third item would really relate if you did not take action on the first one. It would be more applicable and so if you did allow anybody in the public to participate in buying shares, did you want to put a limit on the amount that those non-permitted shareholders could possess? Are there any questions on the three of these?

MR. WILLIAMS: No questions, but are we going to do motions? Are you ready for motions? Do you want us to work from this document as opposed to from the amendment?

DR. LASSETER: I put this together to simplify what's in the amendment and so it includes all of the items on the left. It's just a little easier to work through, but I believe we're going to have to switch over to a motions page.

MR. WILLIAMS: I would like to restrict future transfer to only shareholder accounts that hold a valid commercial reef fish permit and I would offer that as a motion.

CHAIRMAN GREENE: We are going to get a motion up on the board here. She is getting it up there now.

DR. LASSETER: I think the motion would be to retain the item to restrict transfer, because any of these items that you are going to retain in the document we are going to create into an action with alternatives and so you're not making a decision here on what you want to ultimately do. You are expressing which actions you would like us to develop.

MR. WILLIAMS: Gotcha. Thank you.

CHAIRMAN GREENE: We have a motion on the board and is there a second to the motion? There is a second. It's been pretty well laid out and is there any further discussion?

MR. WALKER: Let me ask something. Some of the industry that doesn't like this, I would kind of like to hear what they have -- - Maybe we can get this going here and hear what they have to say in testimony. I know some of them have a little heartburn

over it and so I think this should be like this, but it's something we need to hash out and get a start here in this committee for sure.

CHAIRMAN GREENE: Thank you, Mr. Walker. Anyone else? Okay. Seeing none, we have a motion on the floor and it's been seconded. **Any opposition to the motion? Seeing none, the motion carries.**

DR. LASSETER: Are there any further motions to address the items on this page?

MS. LEVY: I am not sure if I heard this right, but, Ava, in the beginning did you say that you wanted to identify things to be removed? I just want -- If we're going to identify things to stay in, if you don't identify it as staying in, then staff is going to assume you want to remove it and so you've either got to be consistent and identify things you want to remove, so that they know what stays, or identify things you want to stay so they know what to remove and so before you move on, if you don't identify anything else on this particular page that you want to stay in, I think staff's assumption would be that you want to remove it and so I just want to make sure that we're all on the same page about what we're identifying and what will happen in the options paper stage based on what feedback you give.

CHAIRMAN GREENE: Thank you.

MR. WALKER: I think we have a chance to bring this back up in full council too and I mean I have a motion of things to keep, but we're working on things to delete and I guess either way, whatever the pleasure is.

CHAIRMAN GREENE: The last motion was to keep an item in the document and so if you have some stuff pertaining to the first page to keep, then go ahead at this time if you wish.

MR. WILLIAMS: Just to clarify with Ava, if we approve the first one, but don't approve the second two, they just go away and we won't see those again?

DR. LASSETER: I might have been confusing. My original suggestion had been to make motions only for those to remove and I just thought that perhaps I wasn't clear and so you carried on with you motion and either way we want to do it. We've got one motion now with one to retain and as long as I just understand for the other two -- We don't need to make twenty-five motions to remove or retain, but let's just kind of pick one format for

each page. So is there anything people want to -- Let me turn it over.

MR. PERRET: I think the first one -- Roy, your motion passed, right, or has it been voted on? Okay. So the second box, if we've got people with shares but without the reef fish permit, if a motion is not made, then what happens to those shares?

DR. LASSETER: I'm sorry, but if a motion?

MR. PERRET: I can't make a motion and I'm not on the committee, but it allows the council shares, but without a commercial reef fish permit to harvest the allocation associated with those shares and so if you don't make a motion to support that, what happens to those shares?

MR. DIAZ: They can trade them, but they can't harvest them.

MR. PERRET: Are they going to be able to trade them, but they can't harvest them?

DR. LASSETER: I guess I was confused what you meant by the motion. What this says -- If this was to go forward in the document and it passed, it would essentially allow anybody without a commercial reef fish permit to buy and sell and participate in the IFQ program and land those fish.

The whole program would be affected by doing this and this is also a form of intersector trading, which you had expressed, since we put this in, that you weren't interested in pursuing and so this is a problematic one.

MR. PERRET: Obviously I am missing something. I am hearing they will be able to trade the shares and that's not in here. All I'm doing is reading what's in the box and the box says nothing about trading and all it says is accounts with shares but without the reef fish permit to harvest the allocation associated with those shares and so if a motion is not made to accept that, where does it say the shares can be traded or whatever with them?

DR. LASSETER: Currently, right now, anybody without a commercial reef fish permit can buy and sell shares and transfer the allocation. They just cannot land it and so if this remained in the document, this would further expand program participation and allow anybody who buys and sells shares, because that is currently allowed, to also land the allocation associated with those shares without a commercial reef fish

permit.

MS. BADEMAN: I was trying to help Corky and so like this -- If we move this forward, this second box here, me, Martha Bademan, who does not have a commercial reef fish permit, I could buy up a bunch of allocation and I am going to go commercial fish for red snapper without a reef fish permit. That's what this is letting me do.

Right now, I could buy or lease, but I wouldn't be able to fish it. This would allow me to actually fish it, which, by the way, I am not interested in. I will just throw that out there.

MR. DOUG BOYD: I have a question. Is this -- These different boxes, are we, in effect, voting to remove to the Considered but Rejected several of the items that are in the amendment or in the document? Is that what this is, a summary of those, and that's what we're removing?

DR. LASSETER: You had a scoping document. We don't have a Considered but Rejected. We're not that far along yet. You had a scoping document with a bunch of different items for us to go out and get feedback on and for the council to consider whether it was interested in pursuing these modifications.

Now we've brought you all of those items. We've had the scoping summaries and we are looking for direction from you which of these items staff should work up into a draft options paper and start developing some alternatives and start developing some discussion. Which of these are you interested in evaluating further and which of these can you remove from consideration?

Those that you remove from the scoping document stage I don't think need to go in a Considered but Rejected section at this point. These are just loose ideas.

MR. WALKER: Ava, do you think if you just developed an options paper and then brought it to us and then maybe we could remove them and use them all and then we could remove them at the next meeting?

CHAIRMAN GREENE: That's what she is trying to do, in effect.

DR. LASSETER: Please, no.

MR. WALKER: From scoping and the five-year review of what they have recommended.

MS. LEVY: Staff can develop whatever types of things the council decides it's interested in pursuing, but if you know now that there's no way that you want to let people commercial harvest red snapper without a commercial reef fish permit, then tell them that, so they don't have to develop it.

If you really think that you're going to consider that and let folks actually fish their shares and allocation with no reef fish permit, then okay and I am just using that as an example, but for any of these if there's a resounding we don't want to do that, then it's much better to let staff know now so you have a simpler options paper and staff doesn't have to spend a lot of time developing things that you already know are not things that you want to pursue.

DR. LASSETER: I don't know if you noticed that scoping document and it was rather confusing. You had a lot of items in there and a lot of things to discuss. At the options paper stage, it's going to be a little more complex as well, which is why we're trying to narrow down your scope and focus of what you want to pursue in this action.

CHAIRMAN GREENE: My question would be with the Amendment 30B and not allowing people to fish in state waters, I guess you have just went around that with this particular item, if I am reading it correctly and I think I am. I think Martha was spot on with what she said earlier. However, Mr. Matens would like to make a point.

MR. MATENS: I have a procedural question and then I may have a motion. Ava, is it your understanding that if we pass, which we did, Roy's motion on the very first box and moved to the next page, will we have deleted the next two boxes or do they remain in the document?

DR. LASSETER: Since you -- My original advice was to remove items and we are only going to remove those items that you tell us to remove.

MR. MATENS: Thank you. **In that case, I move that we delete the item that reads "allow commercial shares without a commercial reef permit to harvest the allocation associated with those shares".**

MR. WILLIAMS: Second.

CHAIRMAN GREENE: You have a motion and it's been seconded. Let's make sure we get the motion on the board. Mr. Matens, is

that your motion?

MR. MATENS: Yes, sir, it is.

CHAIRMAN GREENE: Any discussion? **Seeing no discussion, any opposition to this motion? Seeing no opposition, the motion carries.** We still have some other items on the first page and does anybody wish to go there?

DR. STEVE BRANSTETTER: As I read this, it seems to me that Number 3 is very different than Number 1. Number 1 talks about restricting future transfer of shares, but Number 3 talks about people who already have them and so I think those are two very different concepts that need to be -- I don't think of them as well, if you keep 1 that you get rid of 3.

CHAIRMAN GREENE: Thank you. Mr. Boyd, did you have a comment?

MR. BOYD: Yes, I've got just a procedural question for Ava. Are any of these items that we have on here going to modify or delete something that is already in the IFQ program in an amendment that's already been processed and approved by the council?

DR. LASSETER: All of these are your suggested changes to the existing red snapper IFQ program. We have only finished scoping these items and we haven't started the actual amendment and so we're trying to decide what changes to the IFQ program the council is interested in evaluating and potentially making those modifications.

CHAIRMAN GREENE: Basically we're looking for ideas to put in an options paper. Basically, it's a what are you interested in and what are you not interested in kind of a thing is the way I understand it. We still have -- Any more comments or discussion?

MR. MATENS: Let me see if I can help clear up this third item. As I understand this third item, those people that hold those IFQs that don't have a reef permit, if the first box goes through, they are restricted to either holding them and not using them or selling them to someone who has a reef permit and so it doesn't put them out of business.

They can sell them and they can't use them anyway themselves and I, for one, am uncomfortable about having these reef permits become financial instruments, but I think that this would allow those people that have bought them or acquired them to be able

to get out of them and not lose whatever capital they have in them and I would be for limiting the amount that they can possess. Let's see what's a reasonable amount.

CHAIRMAN GREENE: Okay.

MR. MATENS: Please forgive me. You guys may remember I did go to LSU. **Accordingly, I move that we accept the language in the third box to limit the amount of shares/allocation non-permitted IFQ accounts may possess.**

DR. LASSETER: Perhaps if there is no -- Never mind.

MR. PERRET: It seems like if you want to limit the amount that you certainly have to have some options. A could be 10 percent and B could be 20 percent and C could be 5 percent and D could be 1 percent. I mean just limiting it, I mean we're limiting it to what?

MR. MATENS: To that point, Corky, I agree with you and I think staff needs to give us some idea of what's reasonable here.

DR. LASSETER: That would be included in the options paper.

DR. BRANSTETTER: Corky, to your point, think of these as actions and then staff will develop alternatives to go under them.

CHAIRMAN GREENE: We have a motion on the floor and does the motion read as you wish?

MR. MATENS: Yes.

CHAIRMAN GREENE: The motion has been seconded. Any further discussion? **Seeing no discussion, any objection to the motion? The motion carries.** Dr. Lasseter.

DR. LASSETER: If we could move to the next page, so there is two items for consideration here and they both address a full retention fishery. The intent would be to reduce regulatory discards and the first item for consideration is to eliminate the commercial red snapper minimum size limit and the second option or item is to consider the full retention of commercially-caught red snapper.

MR. WALKER: I would like to make the motion that we keep both of those in the document. A lot of people would like to remove the size limit and there's some discussion of a fully retention

and I would like to hear more discussion on that and so I would like to keep it in there.

CHAIRMAN GREENE: Mr. Walker is making a motion and let's make sure we get it up on the board. Essentially you're wanting to keep both items.

MR. WALKER: Yes, I would like to keep both of these items, to eliminate the commercial red snapper size limit and consider full retention of commercially-caught red snapper.

CHAIRMAN GREENE: Let's get the motion on the board and see if there's a second before we go down the road. Mr. Walker, does that read as you wish?

MR. WALKER: Yes.

CHAIRMAN GREENE: Okay. Is there a second to this motion? Seeing no second, the motion fails for lack of a second.

MR. WILLIAMS: I would be in favor of considering the full retention of commercially-caught red snapper. I would move that we retain that portion of it.

CHAIRMAN GREENE: We have a motion on the floor. Mr. Williams, is that your motion? Do we have a second for this motion? It's seconded by Mr. Walker.

DR. BRANSTETTER: Both of these have bullets beside them that say "could reduce and eliminate regulatory discards and may not be possible, given limited quantities of IFQ allocation" and the first box to eliminate the snapper size limit, I don't think that's true that it may not be possible, because if you eliminate the size limit, you're going to catch until you run out of allocation and then you can't land anymore, but the second one you cannot do full retention, because when you do run out of allocation, you are building into a regulation here that says you've got to keep on keeping fish and I don't think that's logistically possible.

MR. DIAZ: I agree with some of what Dr. Branstetter said, but I did attend the public hearing and I do remember the commercial folks that were at the public hearing, they did not think it was possible to do a full retention. They thought it would be an enforcement nightmare and the folks that were at the public hearing I attended, if I remember correct, they were completely against that one.

I would be more willing to leave in the size limit and explore that a little bit further and see if that's possible. I don't know at this point, but the full retention, if we was going to save some staff time, I would be in favor of knocking that out, to save some staff time. Thanks.

MR. WILLIAMS: I was going to say I am not -- Well, first off, I am not in favor of eliminating the minimum size limit, because I think we're going exactly the wrong direction. The recreational fishery has increased the size of the fish it has targeted and increased the size and increased their yield per recruit and buoyed everybody's catches up or the total allowable catches up because of it and this would be going exactly the wrong way.

On the second one, I don't think full retention is actually practicable at this time, but I think it will be at some point in the future. There are people experimenting with cameras onboard their vessels to look at the possibility of full retention and so I will admit I don't think it's practicable at this time, but I think the day will come when it is and so I'm just in favor of leaving it in for now.

MS. BADEMAN: I guess a point and a question. One, I don't think this is feasible and I agree with you right now, Roy, but my question is how do you do a full retention fishery while maintaining a minimum size limit?

MR. WILLIAMS: I withdraw my motion.

CHAIRMAN GREENE: I guess we're back to square one here and so, all right, does anybody else wish to weigh in on the second page of this?

MR. SANCHEZ: Just seeing the way this is evolving, it seems like this program has been successful and it has worked and it stays within its limits and now we're going to try to micromanage it and tell these folks who should and shouldn't have these things, instead of letting economy and capitalism take shape.

You might end up consolidating these shares into the hands of just a few people and then the consumer is going to be the loser, because once only a few control it, the price has got nowhere to go but up and this thing is just so -- I don't know, but it's so troubling that this whole building shakes every now and then.

CHAIRMAN GREENE: All right. Dr. Lasseter, I guess we will

continue on.

DR. LASSETER: Okay and ironically, since there was not a motion that passed to remove them and the motion failed to retain them, right now we have them both left in the document. Shall I go on?

MR. WILLIAMS: I thought they were both coming out. I thought we were eliminating both of them.

DR. LASSETER: So I can interpret that since the motion failed to retain them that I am going to interpret that to remove them?

CHAIRMAN GREENE: That is my understanding. That is correct.

DR. LASSETER: That sounds wonderful. Okay. Let's move to the next page. These two items would address caps on the amount of allocation that can be held. Currently, the red snapper program does have a cap on the amount of shares that an entity can possess and this would address a cap on the amount of allocation. The grouper/tilefish program does have an allocation cap and it's very high and nobody has ever approached it. That is just background info.

The first one would be a cap on the amount of allocation that may be held by an entity and we would interpret the entity as either the shareholder or in the vessel account. Then the second one would establish a cap on the amount of allocation that can be landed by a single vessel.

For both of these, the IPT is not sure what the intent is of the cap and what is the practice or behavior that you're trying to modify. Is there a need for a cap? We are looking for a little more guidance on, if you wish to retain these items, what is it that you're trying to achieve.

CHAIRMAN GREENE: Okay, committee.

MR. WILLIAMS: My recollection is in the original red snapper IFQ program that we adopted that we considered something like this, but I think the final decision was it wasn't enforceable anyway and people could just create a new entity and so there is really no practical way to make it work and so my recollection is we eliminated it.

MS. LEVY: I mean I will just say that, as Ava said, the grouper/tilefish program has a share and an allocation cap and they do keep track of allocation distributions and things like

that and so I'm sure they're tracking it to make sure that nobody is reaching the cap and so I think it's enforceable and you could do it if you wanted to.

MR. WILLIAMS: Why can't you just create a new corporation then? Just create a new corporation and hold whatever else you want to buy in that.

MS. LEVY: Because as we track shares, we track allocations and it drills down into who owns the corporations and the percentage ownership and the IFQ program tracks all of that and so you can't have like ten corporations then say each one is separate. They drill down to the actual ownership percentage in those corporations.

DR. BRANSTETTER: Mara is right and I am getting a text here from Jessica back in the office and they can track this, Roy, because they are tracking at the human level. An entity can be human or account and so it's how you want to address this in the future, but they can track it, because they are tracking it at the human level.

MS. BOSARGE: In the positive light, I can see where in the future hopefully we will continue to rebuild the red snapper population and so as that happens and the quota increases, hopefully, for everybody, then your share percentage may stay the same, the number of shares that you have, but the number of pounds of fish that go along with that share is hopefully going to increase if we do our job right.

I see where this can cause a problem in the future that as somebody that owns a certain share continues to be accountable and fish properly and by the rules that they almost end up being punished by this allocation cap, this number of pounds, and that they wouldn't get their certain percentage to go fish as it rebuilds, but I could be looking at it wrong and I don't know.

MR. FISCHER: Leann, I don't think it's meant to dictate by pounds. I think it's always been by percentage and so as the total allocation goes up, their individual percent stays the same, but their quota goes up, but I will let the creator of the document further fill you in, but I believe we are not talking about pounds, but percentage.

DR. LASSETER: These are with allocation and so pounds.

MS. BOSARGE: So allocation is in pounds and shares are in percent. The percent would stay the same, but there is going to

be a cap on their number of pounds if their allocation is capped, right? So that quota could keep going up and they keep their same percent of the total quota, but because there's a cap on the actual pounds that they can receive, it's going to stop at some point.

MR. WILLIAMS: I would move to strike both of these on this page, both of the caps, to strike both of the caps that are referred to on this page.

CHAIRMAN GREENE: Okay. The motion has been seconded and we'll get it up here on the board in just a second and make sure it reads correctly. Mr. Fischer, do you have discussion to this motion?

MR. FISCHER: Yes and I was going to ask Roy and even if it were in percent and not in allocation, in pounds, because the wise authors who did this -- We're in the five-year review and who did this nine years ago had foreseen the possibility of --

MR. WILLIAMS: I might go with that, Myron. I'm still not sure what it serves, what purpose it would serve, but I wouldn't be really strongly opposed to that, but I think Leann makes a good point on the allocation portion of it, because Ava said allocation is pounds.

CHAIRMAN GREENE: Any further discussion?

MS. LEVY: I was just looking at the regulations for the grouper/tilefish and I think the way they've done their allocation cap is they link it to the share cap and so it's the allocation associated with the share cap and so it's linked in that way, just to let you know.

CHAIRMAN GREENE: I hear some rumbling from down the table, but I don't see a hand and so we have a motion on the board and is it written the way you wish, Mr. Williams?

MR. WILLIAMS: Yes and hold on a second. Kevin and I were just talking if we restructured it or if the options paper -- If we retain this, then the options paper could perhaps restructure it the way that Myron referenced it, as the way that the grouper/tilefish IFQ is done. Now I am less -- I might vote against my own motion.

CHAIRMAN GREENE: Okay. Do you wish to withdraw your motion?

MR. WILLIAMS: Yes, I would like to, if it would be all right

with my seconder, that the cap that is established be the allocation associated with the cap on shares and would that be okay with you? Is that right, Mara, and did I say it correctly? It would be the allocation that's associated with -- That we cap the allocation associated with the share cap.

MS. LEVY: I mean I think you could just leave the idea of an allocation cap in there and then staff can come back with some alternatives and they can structure it -- We can go back to Amendment 29 and see how grouper/tilefish did their allocation cap.

MR. WILLIAMS: I would like to withdraw my motion then with that understanding, if Dale agrees to it.

CHAIRMAN GREENE: The seconder agrees and the motion is withdrawn. Mr. Walker, did you have your hand up?

MR. WALKER: Yes, I was just going to say the -- Not your allocation, but your shares for snapper, I think it's like 6 percent, where tilefish is in the teens or something, I think, and so I mean it's -- What the concern was from some of the people in the industry was, and I know it was just one particular vessel, was leasing more fish, and I am not sure what his shares were, but he was leasing a lot of fish and he was catching 200,000 or 300,000 pounds and some people didn't think that was -- Something to consider and anyway, that's where that came from. It was people worried about one vessel catching too many fish, too much allocation, and not these shares.

DR. LASSETER: My understanding is if you do leave these two in that one of the alternatives we would develop would be something to mirror the grouper/tilefish program allocation cap and how that's structured.

MR. WILLIAMS: Yes.

DR. LASSETER: Okay. Then it sounds like we can go on to the next page. This page addresses accounts that have never been activated and the first three items all begin with the same phrase, "only for accounts that have never been activated in the current system".

The item is to propose closing those accounts and redistributing the shares within those accounts that have never been activated and then there's three options that have been considered. Do that if those accounts are not active by a specified date, and we could provide you some alternatives with dates, or to

redistribute the shares to those with no or small shares or to new entrants and this would be as a purpose to reduce regulatory discards.

Third, again, to reduce the regulatory discards, use that quota from those inactive accounts to distribute through quota banks or have NMFS administer the distribution in some way and so it's closing the accounts, potentially by a specific date, and then a couple of options as to what could be done with those inactive shares and then, finally, at the bottom it's an item of in the event of future increases to the commercial red snapper quota, consider alternatives to redistribute those quota increases to new entrants and small shareholders. I will add that the idea of new entrants and small shareholders will have to be defined and fleshed out.

CHAIRMAN GREENE: Thank you. Any comments or desires to do anything on this particular page? Okay. Seeing none, I guess we will continue on.

DR. LASSETER: Moving on, there is only one item on this page and this concerned enforcement and it was one recommended by the Law Enforcement AP, I believe, and it would require all vessels with a commercial reef fish permit to hail in prior to landing, even if they are not in possession of IFQ species.

The idea is that there are commercial boats that do not participate in fishing any of the IFQ species and so they would not be hailing out and hailing in. To improve enforcement, what if those vessels did have IFQ species onboard and just had not hailed in or were not part of the program?

They could be landing in their regular spots, which are not approved landing sites, where law enforcement would not be notified and they would be less likely to be checked and so this is an idea to improve enforcement for all reef fish landings, but especially for the IFQ species.

MR. WALKER: I think this is a good one to keep in. A lot of people are worried about people that didn't have any IFQ shares and they wouldn't have the restrictions and they could unload at nighttime or different times and I think everybody was in support of that, of this staying in the document.

CHAIRMAN GREENE: Thank you for that. Anybody else wish to weigh in?

MS. BADEMAN: I agree with David and so are we looking for a

motion to retain or are you happy just with that input?

DR. LASSETER: Unless there is a motion to remove it, we are going to keep it.

CHAIRMAN GREENE: I think everybody has kind of got that down. Okay, Dr. Lasseter.

DR. LASSETER: Okay. This next page is a confusing page. Here we have lots of questions and lots of items and all of these pertain to requirements for the use of how shares and/or allocation are used and they pertain to the transferability of shares and allocation.

For the first item, establish use it or lose it provisions, this was an action in Amendment 26, but it had a different meaning than how it's widely being used now and we would strongly recommend that -- Not that you don't consider requirements for the use of shares and allocation, but that we not use the expression "use-it-or-lose-it". It's become confusing.

For some of these other items, what we're looking for is some direction as to what you were trying to achieve, what the committee is interested in achieving or what behavior they are interested in modifying.

After the use-it-or-lose-it provisions, we have restrict ability for shareholders not actively engaged in fishing to transfer those shares and allocation to other shareholders. For this item, there is a couple of issues. With the IFQ system, it does not track -- It tracks the transfers of allocation, but it does not identify, when allocation is ultimately landed, who that original shareholder's account that it came from.

Then another red question in here is the IPT would like some discussion on how the committee would define "actively engaged in fishing" and I will turn it over for some discussion.

CHAIRMAN GREENE: Okay and as you said, this page is confusing and so maybe we'll just back up and take them one block at a time. Does anybody wish to weigh in on a use-it-or-lose-it provision? Okay. The next thing that she was asking for or the next category is restrict ability of shareholders not actively engaged in fishing to transfer shares and has anybody got anything? Okay. I guess we will just take these one at a time. Mr. Walker, did you have your hand up?

MR. WALKER: I would like to hear some testimony on the restrict

ability of shares and actively engaged.

CHAIRMAN GREENE: Okay. So noted. Anybody else? Okay, Dr. Lasseter.

DR. LASSETER: The next item is to place restrictions on the transfer of IFQ allocations and shares and we would like some more guidance on what type of restrictions you would wish to consider and what is the goal of these restrictions? What is the practice or behavior of fishermen that you are trying to address with restrictions on transferability?

CHAIRMAN GREENE: Anybody?

MR. WILLIAMS: Where did this one come from? Did this come from scoping? Is this something that was suggested in scoping?

DR. LASSETER: Most of these items came from council discussion and we have heard council discussion about people who are shareholders who are -- We hear the expression a lot of not "actively engaged in fishing", but when you actually look at the structure of the program, that's not so clear to define and so while these all came from council discussion, that's also why the IPT needs some more feedback about what is the specific behavior or problem that you're trying to address in placing restrictions on transferability and that will help us, if this item remains, to define alternatives.

DR. CRABTREE: I am assuming, because I hear about this a lot, is the issue of people who are shareholders and don't own a vessel and just lease shares and make their income off of leasing their shares, but don't ever fish themselves. I am assuming that's kind of what this is trying to get at. I can't think of what else it is.

MR. WILLIAMS: That would be my guess to, but we addressed that in our very first -- Way back on the first page. We wanted an alternative to require shares to be held by a reef fish permit holder.

DR. CRABTREE: So every shareholder would have to have a reef fish permit and get a vessel then?

MR. WILLIAMS: That's what would be in the options paper, yes. I think we ought to just take this one out. I think we've addressed it elsewhere. **I am going to move that we eliminate, quote, place restrictions on the transfer of IFQ allocations and shares.**

CHAIRMAN GREENE: Let's get the motion on the board and are you seconding it? Mr. Walker seconds the motion. Is there discussion while they are getting it on the board?

DR. CRABTREE: When I am looking at the -- I am sorry I missed the discussion then, but you said you had an item that was restrict future transfer of shares to accounts that have a reef fish permit and limit the amount of shares/allocation that non-permitted IFQ accounts may possess and so I guess that one -- If you said non-permitted accounts can't possess any shares, then yes, that seems to do it.

MR. FISCHER: Roy, where are we if the first item doesn't pass?

MR. WILLIAMS: One would assume that if that didn't pass that this probably wouldn't either. I mean if it's important to you guys to leave it in, I will leave it in, but I just don't -- As it asks out here what practice or behavior is to be restricted, I guess Ava would understand from the discussion here what the practice is. It's the people that own shares but don't own a reef fish permit that we're trying to control.

MR. MATENS: I guess I would like clarification for myself. How does this apply or not apply to a shareholder that may or may not own a boat but doesn't fish at all and all of his shares are rented out? Can someone answer that question?

MR. WILLIAMS: Well, in my opinion, he or she would be constrained by that very first page, by the alternatives on the first page. That's the way I think about it. This could be a backup, I suppose. You could do the same thing here if Ava -- I guess Ava understands the context of the discussion that's going on here and so probably that's what she would pick up on. I would also point out that I never got a second and so I don't have to -- Did I?

CHAIRMAN GREENE: Yes, Mr. Walker seconded. We have a motion on the floor and is there any more discussion? Any further discussion? **Any opposition to the motion? Hold your hands up if you're in opposition. I see three. All in favor of the motion raise your hand. Three to three and the motion tied and so it fails.**

MR. BOYD: A procedural question. If an item is deleted from this list and at some time in the discussion and in the document, whatever amendment we're going to do, somebody wants to put one of these items back in, it could be put back in and

is that a correct statement?

DR. LASSETER: My understanding is that just failed and so we are keeping it in the document and was that your question?

MR. BOYD: No. My question is a procedural question for the future. We're going to -- You're going to develop a document out of this and we're going in and we're going to eventually select preferreds and we will vote on those. At some point in time if a council member wants to add one of these back in or something else, they could do that, couldn't they?

DR. LASSETER: Absolutely. Our next stage is an options paper and so once we expand on these and give you some discussion, you may want to remove more of these and you may want to tweak them and absolutely that will be the logical next step.

MS. LEVY: If the discussion of this use-it-or-lose-it -- If everyone agrees that it's somewhat accomplished by what we did on page 1, we can keep it in there, but I think what will happen when staff goes back to write the options paper is it's the same thing, right, and so we would likely combine it into whatever action is appropriate to address that, because I don't think we want duplicative actions that say pretty much exactly the same thing.

CHAIRMAN GREENE: Thank you. All right. With that, we're going to move on, Dr. Lasseter, and we've got a couple more items. We still have a presentation, but we have failed to get through Amendment 36 in our last couple of attempts and we will get through it today and so let's continue on, Dr. Lasseter.

DR. LASSETER: Actually, I am still -- What I understand right now is that all of these have remained in the document.

MR. WILLIAMS: What do you mean by rollover provision? Does that mean roll over any unused allocation from this year to next year?

DR. LASSETER: I apologize. I realize we just got through the first three and let's take up that one. Item Number 4 here says to adopt a rollover provision for unused IFQ allocation that idea is for IFQ allocation -- At present at the end of the year, it disappears. Anything not used disappears and the shareholder gets the next year's allocation by January 1.

This would allow some amount of unused IFQ allocation to be used in the following year and we have received some feedback from

NMFS that this could be problematic for monitoring annual sector ACLs and then I also wanted to point out that the quota will be decreasing over the next three years. We do have a decreasing yield stream and so I'm not sure how that -- If it could create problems for the ACL.

MR. WILLIAMS: I move that we strike the fourth box to adopt a rollover provision for unused IFQ allocation.

CHAIRMAN GREENE: We have a motion on the floor and it's been seconded and we're getting it on the board and I saw a hand. Do you have a comment to this motion? Go ahead, Mr. Diaz.

MR. DIAZ: I am just trying to recall and it seems like when we discussed National Standard 1, 3, and 7 the other day that there was some provision in there to allow to roll over unused ACLs and so I mean if I am not mistaken on that, there may be a mechanism to do it in the future that doesn't exist today, although I know I'm talking about potential passage of legislation, but I do think that may be on the horizon.

DR. CRABTREE: The problem is that you can't exceed the ABC and I think we have normally set the quotas at the ABC and so if you carry over unused quota to the next year, that would then put you above the ABC and so it seems like to do that that you would have to go back to the SSC somehow and ask them for a new ABC.

The other thing I see here is that if we were going to go down this path with this commercial fishery, we were over a million pounds under quota on the recreational side last year and it sure seems like to me if we're going to try to carry over uncaught quota that we would need to look at doing that for both sectors and not just one, but I think that's the problem with it, is figuring out how to do it without going over the ABC.

MS. BOSARGE: There may be another way to do this without a rollover provision. What the people in Mississippi at our scoping meeting were speaking of is when we -- Where they had an issue was when we had an increasing quota at the end of the year one year -- I don't remember and was it 2013, maybe, where we had an increase and so essentially what happened is that quota got shoved down to the commercial sector in the third quarter of the year and then you kind of ended up with a lot of that derby-style fishing or something like that and they were wondering if that comes up again, is there any way, instead of shoving all that at us in the third quarter of the year, can some of it be transferred to us after January 1?

I mean maybe there is other ways to alleviate the problem they were looking at and I will just throw it out there that that's what they were talking about in Mississippi.

MR. WALKER: I was just going to add with talking about the rollover, it's a small percentage that's not harvested every year. I think it was around 1 percent last year and it could be only 1 percent that could probably roll over.

DR. CRABTREE: Listening to Leann, it seems to me the most straightforward way to deal with that would be don't increase the quota until the first quarter and that would effectively mean the catches didn't go up until the first quarter and so they would probably go up more than they otherwise would have, but that's kind of a problem we created by our timing on raising the quotas.

CHAIRMAN GREENE: Thank you. We have a motion on the floor and we've had good discussion on it. **Is there any opposition to the motion? Seeing no opposition, the motion carries.** Dr. Lasseter.

DR. LASSETER: Thank you, Mr. Chairman. The final item on this page is to consider adopting a lease-to-own provision, such that an entity buying, leasing, annual allocation earn some credit toward possession of those IFQ shares. Is there any discussion?

MR. WILLIAMS: This was my item and I will tell you that I've had far more complaints about it than I have had -- In fact, I don't think I've had any compliments about it. Despite that, I still like the idea of it and so I'm not going to make a motion to eliminate it.

DR. CRABTREE: Can you explain at least to me what "earned some credit" means? We don't have credit accounts and I'm not quite sure that means.

MR. WILLIAMS: It would mean that a person who has to go out and lease allocation every year would be given some small portion of that share and so if I had to go out and lease -- Make up a number. 1 percent, which might be 100,000 pounds every year, because I am new to the business and I don't have the money to go lay down to buy that allocation and I can't get a bank to loan me any money on it, but I would be given some small portion of that and it would transfer from the owner to me. After ten or twenty years, I would have a real share and so that's what it attempts to do.

DR. CRABTREE: So effectively when you lease quota to somebody, you have to sell them a certain amount of shares that go along with it?

MR. WILLIAMS: You could look at it that way, sure.

MR. WALKER: I would like to see it removed. I think it's just going to cause the discards to go up. I mean if someone is going to find out there's a control date that's going to be set forward that this could happen then I think a lot of leasing would stop and people would just go catch them themselves so they don't end up losing them.

MR. ANSON: I am not on the committee, but I mean there aren't any alternatives as to how that necessarily would work and I think staff might be able to come back with some options that could be attractive to shareholders and attractive to those that want to lease and there might be some ways you set it up that you could work that and it would be beneficial to the resource and beneficial to the fishermen.

MR. WALKER: I would like to hear some comment. We could get some public comment.

MR. MATENS: I am in concurrence with Kevin's opinion. I think this has value and we should try to move forward with fleshing it out.

CHAIRMAN GREENE: Okay. I don't see any more hands and no motion to take it out and so we will move on to the last item.

DR. LASSETER: I just want to clarify on the previous page. So I understand shareholders who don't own a vessel and make income off leasing shares is what you're trying to address and so what type of restrictions -- We will bring you alternatives, but we have the -- The item specifies restrictions on transfers of allocations and shares and is there anything more specific you could provide in terms of the types or we'll just come up with stuff if that's what you want to have us start with or is there something you're thinking of? Is there some idea you have?

MR. PERRET: It seems to me you're back on the second part of that box and I have been trying to figure out what happened to that. Did we leave it in or take it out? It's still in? Well, why, if an individual is a shareholder and may even own boats, but never sets foot on the boat, do we want to restrict that person from carrying on his business activities?

He may not be the guy that is actively fishing and I guess I would throw out if I own a charter boat, but I don't ever set foot on the charter boat and I let somebody run it for me, what are we trying to do there if I own a boat, but I don't go out on it?

DR. LASSETER: That's what I want to know. What are you trying to do there?

MR. PERRET: I want to know why is it in there? I guess if I was on the committee, I would move to take it out, but it seems to me we've got people that own vessels and they own shares and they've got quota and the whole bit and they follow the rules, but they don't ever set foot on a boat. Some of them are my age and older and so they can't go out anymore.

CHAIRMAN GREENE: Anybody else? Anything else you want to add? Okay, Dr. Lasseter, does that complete --

DR. LASSETER: We will bring something back. Again, I am not clear on transfers of allocation, shares, but we will see what we can do. Let's move on to the next one in the interest of time and, yay, this is our last one. This item is actually related to the framework action that Dr. Diagne just presented a while ago, which is to withhold distribution of some portion of a shareholder's allocation at the beginning of the year if a mid-year quota reduction is expected.

There is a one action framework action that was just reviewed that would withhold some amount of quota, depending on what alternative passes in Amendment 28, and the framework action is only valid for the one year and to make such a withholding permanent would require an action and a full plan amendment.

If that type of action that's under consideration in the framework action is something you wish to make permanent, then you would want to retain it here and we could further develop it.

DR. CRABTREE: I think we need this, because we have had this come up on a couple of occasions. I think it was a problem when we needed to reduce the TAC on gag and it's going to be a problem on any of these species if we get an assessment and we need to make some reduction or if you decide you want to adjust the allocation and we run into these timing kind of issues and so I think this is -- It's a difficulty that's inherent in these IFQ programs and so I think we need this to give us the flexibility to do this.

CHAIRMAN GREENE: Okay. Any other comments? Okay, Dr. Lasseter.

DR. LASSETER: If there are no further comments on the items in here, then we will move forward. Perhaps we could talk timeline and what is your intention? The next step would be an options paper. Any comments on timeline?

CHAIRMAN GREENE: When do you think you -- When is your schedule -- I mean you all have got a lot to do, but when is --

DR. LASSETER: October. Originally, I think at the last meeting, I told you August, but now I am concerned with Amendment 39 and we have several other documents we're working on.

CHAIRMAN GREENE: Any committee objection to October before this comes back as an options paper? Seeing none, that sounds fine to me. Dr. Lasseter, does that complete your --

DR. LASSETER: It does and thank you very much.

CHAIRMAN GREENE: With that, the next and final item for today is Grouper/Tilefish IFQ Five-Year Review, Overview of Studies, Tab B, Number 11(a) and I am not sure if the individuals are here to do that, McPherson and Peruso.

GROUPER TILEFISH IFQ FIVE-YEAR REVIEW
OVERVIEW OF STUDIES

MR. MATT MCPHERSON: Good afternoon. My name is Matt McPherson and I am the Director of the Social Sciences Research Group at the Southeast Fisheries Science Center. I would just like to take the opportunity to introduce myself, because I've only been with the Science Center for about six months. I'm an anthropologist and I was leading a similar group at the Northeast Fisheries Science Center, but was very happy to have the opportunity to come south and I am looking forward to meeting everyone as well as I appreciate the opportunity to address the council today.

As most of you know, our group focuses on gathering social and economic data and conducting research to inform the fisheries management process and today we want to tell you about work that we're doing in support of the five-year review of the grouper/tilefish IFQ program. We are doing this work in partnership, very close partnership, with SERO and this council.

I just want to spent a couple of minutes myself setting this up by discussing the proposed national guidelines for five-year reviews before handing this off to economists Larry Peruso and Walter Keithly, who will talk about the more specific plans and activities that we've conducted to date.

The Office of Sustainable Fisheries is finalizing a guidance document for five and seven-year reviews of catch share programs and this document does things like identify key components of the review process and how the review document should be set up and what kinds of questions and issues should be addressed and the guidance is still a work in progress, but as part of the process of developing this guidance, they are going to be seeking input from the councils, but they are also using a number of different references, which I won't read, but you can see them on this slide that include MSA, NOAA catch share policies, and other things, other studies.

The key components of this process include the review plan, the review team, and interim reports and these are all things that have been done to date, in preparation for the grouper/tilefish IFQ review. We have been able to benefit from the experience of having done the red snapper five-year ITQ review and so the review plan was, in this case, established before the end of the fifth year and we are asking, by presenting this plan right now for the council to review, to begin to review our plans before it's finalized and before we initiate significant work towards the implementation of this plan.

We have a team, as I mentioned, that includes the council, the Regional Office, the Science Center, and the Office of Law Enforcement and we benefit from different interim reports that have been done along the way, including annual reports that have been done by SERO as well as different reports that include information on performance that have been done by headquarters and they focus in particular on the economic performance of catch share fisheries.

There is a review team that is responsible for compiling data, for conducting the analyses, and for writing the report. The plans are that drafts of the report will be made available to the council and to advisory groups like the SSC and different advisory panels and before the report is finalized, the feedback from all these groups will be incorporated into the report and there will be a final review before the report is considered final that will include, again, the council, the Regional Office, the Science Center, Office of Law Enforcement, and

General Counsel.

The approach to this report, the purpose would be to describe and analyze the effects that have taken place since the baseline time period to incorporate different references and other relevant findings, when possible. There is not any length restriction to this report.

Also on the use of standardized indicators and there are a number of standardized indicators that have already been developed and are already being reported on for the different catch share fisheries across the country and eventually they want to take a holistic approach to these kinds of reviews. For example, if two or more programs are found to have a significant interdependency, joint reviews may be completed after the initial review is done.

Here is just some information about what the structure of the review document would include and I am not going to read all of these to you, but it has things like the purpose and need of the review, history of management, sort of the goals and objectives, introductory type information, as well as an evaluation of the biological, ecological, social, and administrative effects in comparison to the goals and the objectives of the program. It will see how the performance of the program actually compares to its original goals and objectives.

The analysis components, again, include things like goals and objectives, the eligibility requirements, how transferability is working, how the quota is performing in comparison to the ACLs, whether there is a need for accumulation limits and caps, cost recovery, data collection. There is a wide range of things that are potentially included in this report.

Even though this guidance is still in the review process, the five-year grouper/tilefish ITQ review that we're planning is very closely aligned with this national guidance and so when that national guidance comes out, there shouldn't be too many surprises for us in terms of the plans and the information that we're going to already have available for the grouper/tilefish five-year ITQ review. With that, I will turn it over to Larry, who will talk to you more specifically about the plans that we have for the review.

MR. LARRY PERUSO: Good afternoon. My name is Larry Peruso and I'm an economist at the Science Center and I'm going to go ahead and show some of our ongoing projects and proposed projects that are related to the five-year grouper/tilefish IFQ program

review.

First, a little background on how we set this up. About a year or so ago, we applied for some funding from the Office of Science and Technology at NMFS for their catch share program and our idea was to offer up a suite of proposals that would look at the specific objectives of the grouper/tilefish IFQ program and these included reducing overcapacity, increasing technical efficiency, harvest efficiency, profitability, mitigating and preventing race to fish, but we also wanted to look to see if any of the anticipated benefits were realized.

This includes market stability; elimination of quota closures; crew safety at sea; balance of social, economic, and biological benefits and also reducing bycatch and associated bycatch mortality.

These, in general, were the projects that we offered up. We wanted to look at the attitudes and perceptions of stakeholders of the IFQ program and we wanted to look at the effects of the program on fishing communities and we also wanted to assess the efficiency of the quota balancing mechanisms that are specific to the grouper/tilefish IFQ program.

We wanted to look at changes in fishermen behavior and we wanted to evaluate changes in fleet capacity in the technical efficiency, harvest efficiency, of the fleet. We wanted to look at changes in prices and also changes in market power.

I would like to say that even though this suite of the programs that were funded by NMFS was specific to the objectives of the grouper/tilefish IFQ, they're sufficient to also address a range of those analyses that Matt just presented to you from the national guidance.

The first suite that we're looking at is we wanted to evaluate the perceptions and attitudes of stakeholders. We have completed what I would call a survey of participants of the IFQ program and that includes shareholders, non-shareholders who purchase allocation, and, to a lesser extent, people who left the IFQ program. This has been completed and we expect to have results to be presented at the January meeting. Dr. Keithly will show you some example of this and so I won't go too much into this.

We are also in the process of finalizing surveys for the dealer processing sector and also captains and crew. This hopefully will be completed by the end of the year and an interesting

aspect of these surveys is that we have significant contribution from industry, not only with reviewing documents, but they are also helping set contacts and follow up some things of that nature and so they're very much a part of this process.

We have an ongoing community survey that is looking at pre and post changes in the IFQ at the community level. This includes ethnographic interviews with key informants in the communities and also ground truthing these interviews with existing quantitative data that we have, for example, through logbook and trip ticket data collections.

The communities that we're looking and, again, this is ongoing right now, but Madeira Beach, Cortez, the Panhandle, Apalachicola, Louisiana, Galveston, and Freeport.

Just a little background on the share categories. There is five share categories and red grouper, gag grouper, other shallow-water grouper, deepwater grouper, and tilefish. There are thirteen to eighteen species, five of which were removed in 2012. Again, what's interesting about this program is that there is flexibility measures. There is a red grouper multiuse and a gag multiuse and that was suspended because of the stock status of the gag, but it is geared back up for 2016.

There is also shallow-water grouper and deepwater grouper flexibility. Shallow-water grouper, scamp, can be landed under deepwater grouper and deepwater grouper, warsaw grouper, and speckled hind can be landed under the other shallow-water groupers. 10 percent overage for accounts with shares and once per year per share category.

The first project that we're working on this, and this is with Quinn Weninger and Rejesh Singh of Iowa State University, is to look at these quota balancing mechanisms with actual harvest and discard levels and so we wondered are these flexibility provisions effective in meeting the stated goals of reducing bycatch mortality and discards.

We will empirically estimate the harvest technology and separate longlines and vertical lines and so we'll be able to look at it in separate gears and we will do policy simulations to assess fishing behavior and responses and economic benefit and costs associated with the flexibility provisions.

This is important not just for the grouper/tilefish program itself, but at a national level, because really these things haven't been looked at a theoretical point of view and our

contractors are going to do a theoretical study, but use the grouper/tilefish IFQ as a case study.

We want to look at are these post-harvest trading, are they efficient? Are these multiuse allocations efficient and also to be able to say something about whether they're meeting the management objectives that were designed by imposing these flexibility measures.

The next project is also with Quinn Weninger at Iowa State and we want to look at the changes in fisher behavior before and after the IFQ implementation and so this is a model of fishing behavior across space, time, and depth and this is interesting because it's a continuous model and it's not like the discreet choice models that you may be familiar with that you have to pic the area rather than being able to look at it continuously and there is also a production model built in.

We have put in realistic properties of the stock with abundances that vary across space and time. There is individually fished and share portfolios of the reef fish stock that are estimated using observed behavior of fishers and we use a description of reef fish ecology and identify costly targeting for discard avoidance and so this a bioeconomic modeling approach that incorporates random harvest.

It will be able to talk to us about things before and after and did the harvest portfolios change? Did the fishing location change? Did revenues go up? Did costs go down? Did profitability increase? It will also tell us things about fleet structure and harvest efficiency of the fleet.

The next one, and this should be familiar from the red snapper review, and once again contracting with Danielle Solis to look at the capacity and technical efficiency of the fleet and did it change before and after the IFQ implementation.

Again, this is what's called a stochastic distance frontier framework and in other words, you're looking at a frontier and if you're on the frontier, you're efficient and the distance that you're off of the frontier measures inefficiency. The nice thing about stochastic distance frontier is that you're able to incorporate the randomness of fishing, weather patterns and stock variations and things like that. We will be looking at measures of fishing capacity, capacity utilization, overcapacity, and technical efficiency changes.

Some of the proposed projects that we're going to look into to

adhere to the guidance that just was referenced by Matt, on accumulation caps we're going to look at summation of data collection to determine the caps and changes in market power. That could be at the entity level accumulation, but also we want to look at are there labor monopsony type issues going on and also, an idea of what the literature is calling share cropping as far as are people able to purchase shares and get into the fishery.

Technical efficiency will also be brought into this to look at share and allocation caps. We will also look at cost recovery, summation of collecting cost recovery fees. Is the 3 percent fee appropriate? Does it cover NMFS incremental costs? Also we'll analyze the compliance with respect to the cost recovery fees.

Lastly, we will be looking at monitoring and enforcement and it will be a summation of seizures, types of non-compliance, and rates of compliance. That's all I have and were there any questions? Walter Keithly is going to come up and discuss some of the surveys that I talked about at first and show you some examples of what we have out in the field. If there is anything particular to the projects that I just described, I could answer those questions now if you would like.

CHAIRMAN GREENE: Thank you. Any questions? I am not seeing anybody and thank you.

SURVEYS FOR THE REVIEW

WALTER KEITHLY: Thank you. Most of you know me and I'm going to keep this very short, because I was just informed that I'm holding up two-for-one beers and the end of the day and so mine is going to be very quick. As Larry mentioned, I am helping National Marine Fisheries Service in a couple of different areas.

One thing that wasn't mentioned is that I've got a contract to help look at the influence of the IFQ program on prices of the products. Now, we often hear that IFQs lead to higher prices and so forth because they're able to space out their fishing activities and so forth and not bring everything in at once. I am involved in that, but also I'm involved in what I'm about to show you just very briefly on some of the survey work that has been done and we will be doing over the next six to eight months.

again, one aspect of this five-year review is we have three

different surveys going on, a participant survey, those that own the shares and what are they doing and we'll get into a little bit more detail on that. Again, I'm going to keep everything brief and those of you that have had the fortune or probably the misfortune of being on the council long enough may remember me from the red snapper IFQ and basically the participant survey I will talk about largely followed what we did for red snapper, other than it's much more complicated, because we were dealing with one species when we did red snapper and now we're dealing with several different species in deepwater grouper and shallow-water grouper and so forth and so it's a much more longer survey, but it basically followed the same format that the red snapper survey followed, other than learning from some of the mistakes on the red snapper survey that we fixed.

Also, a somewhat unique aspect, as far as I know, is we're also doing a survey of the dealer processors, the grouper/tilefish dealers or primarily dealers, but a few processors in there and as far as I know, that's a relatively new concept and I don't know of any other studies that have been done and I may be wrong on that, but, again, we did not do that on the red snapper.

In red snapper, we simply looked at participants, the shareholders, and now we're also going to be looking at the dealers and the processors and their attitudes and so forth on the IFQ program.

Finally, as Larry mentioned, we're going to be doing a labor survey, that of crewmembers primarily, looking to see their opinions of the IFQ program and whether it has benefitted them.

The first survey, as I mentioned, was that of participants. That's been completed. It was conducted in 2014 and it's a combination of telephone surveys, a web-based survey, primarily telephone and web-based survey, and mail surveys. We're going to look at just a little bit of details on that.

Again, following pretty much the red snapper survey, participant survey, that was conducted, there is six different sections to the participant survey, again shareholders and so forth. It's your basic background information that you do in any of these surveys, but also with this one, we realized some people held many accounts and we needed to sort it out and make sure we weren't double counting.

The second section is the attitudes and perceptions, again, and the question of whether they voted on the referendum and their attitudes and whether they were in favor of the IFQ program when

it was initiated and whether we've had any changes in attitudes over the last five years of the program. Satisfaction with the program, including what they considered to be the most positive impacts of the program as well as the negative impacts of the program.

The outcomes, in several different layers we looked at the outcomes, in terms of increased or decreased profitability, whether there was increased flexibility in the fishery and so forth. I won't get into any detail and whether there was change or consolidation. Again, Section 2 was generally simply looking at opinions of the shareholders.

Section 3 was a socioeconomic assessment of the grouper/tilefish IFQ program and it largely dealt with investments and disinvestments in the fishery among shareholders as a result, at least as they saw being the result, of the grouper/tilefish IFQ program.

We looked at investments and disinvestments and we also looked at the ability to maintain crewmembers and the skill of the crewmembers and plans on what they planned to do in the near term, the next five years or so, in terms of whether increasing the number of shares, increasing purchases of allocation and so forth.

Transfer of grouper/tilefish allocation and shares, again we looked at why they had bought or sold shares or allocation and so why did you either buy or sell the shares or allocation and what they considered to be a fair market price for the shares and allocation. It was often very different, as you might expect, from what they actually pay, but we looked at that and some other basic issues.

Section 5, which I really had nothing to do with, is more sociological information on the social wellbeing and demographic information among the shareholders, including their perceptions of fishing in general, whether it's just a job or more than a job and issues on income and family size and so forth. It's much expanded really from the red snapper survey and it's pretty much a new section that was not in the red snapper survey. Finally, we have information, which is basically --

CHAIRMAN GREENE: We have a question for you from Ms. Bosarge.

MS. BOSARGE: Before we get too far away from it, I was interested in that Section 4. When you're asking about the transfer and you said buy or sell and I just want to make sure,

do you mean buying or selling shares or are you talking about the leasing of allocation?

DR. KEITHLY: Both. Now, again, on the next survey I'm going to talk about, we go into a lot of detail on whether to call it buying or selling or selling allocation or leasing it. You know the fishermen, we have input from a group of fishermen and some of them say the term they use is selling allocation. They sell it for a one-year period, generally.

MS. BOSARGE: So it's all focused on the allocation and not the ownership of the shares, the long-term ownership, and, in other words, somebody getting into or out of the IFQ program?

DR. KEITHLY: No, that would be selling of the share.

MS. BOSARGE: Right and are you asking about that?

DR. KEITHLY: By selling just a one-year allocation or a certain amount of fish for a one-time catch, that would be allocation that you're selling.

MS. BOSARGE: Right and so you don't you ask about the share, the long-term --

DR. KEITHLY: Yes, we asked about both the shares and the allocation. The other information is basically at the request of the Regional Office and a number of questions were asked regarding customer service and what the shareholders felt about the satisfaction with the online system and what improvements could be made and landing notification and so forth and what improvements could be made there.

Just real quickly, just a few basic statistics and let me back up and say QuanTech -- The lab hired QuanTech to do the study and they're a consulting firm up in Virginia or Maryland and basically they went about collecting this data in a number of different ways. The first way is through a web-based survey. Fishermen could respond or shareholders could respond through the web-based survey or questionnaires were mailed to the shareholders.

Finally, there were some phone calls made and that just kind of gives you a percentage. Again, as you can see, if you look down at the very bottom, about 997 participants, shareholders, were contacted or attempted to be contacted. That was basically the universe and paper surveys, 199 of them were completed and web-based was 132.

To make a long story short, we had about a 33 percent response rate, which given the length of the survey -- Again, it was much longer than the red snapper survey, due to looking at the different combinations of species and so forth -- The red snapper survey, if I recall correctly, had about a 45 percent completion rate and this was a little bit lower, but I think a lot of it was due to two factors. One, it was a much longer survey and the second was it was not as new as the red snapper. Basically, a 33 percent, about one-third rate, which is pretty acceptable, given the length of the survey and so forth.

Again, just a couple of basic questions. QuanTech, who I mentioned, was contracted to do the survey and they did a very preliminary analysis on some of the results and, again, did you vote on the IFQ referendum, 112 said yes and 152 said no. That may look a little large, that 42 percent said yes, but if you remember, the referendum was only those that averaged 8,000 pounds and I think it was 330, roughly, much less than the total number that had reported grouper/tilefish landings, but, again, this survey that we did encompassed everyone who owned shares.

Were you in favor of the IFQ program at the time of implementation in 2010, 38 percent said yes and another 43 percent said no and there some undecided and so forth and so just keep that yes there at 38 percent and 44 percent, roughly.

Five years later, the no stayed roughly the same, but the yes, those that are in favor of it now, had increased from about 38 percent to 45 percent and so there does seem to be some increased acceptance to it. Now, again, all we have is some very, very preliminary results given to us by QuanTech and I suspect that when we did into it -- Larry and I will be working on this and hopefully getting a report out by about next January.

What we're going to find out is those who are in favor of it are those that have larger shares and it's the same thing with the red snapper. I have very little doubt that you're going to find a more favorable opinion of the grouper/tilefish IFQ program based on the share size that the individual owns or entity.

Again, just participant satisfaction with the grouper/tilefish IFQ program, about a third are highly unsatisfied and, again, I suspect it's going to be those that have small shares, relatively small shares, and going up to highly satisfied, about 20 percent, and satisfied was another 20 percent and so roughly 40 percent of the participants that responded to the survey are

satisfied or highly satisfied with the program.

Moving on, again, I have the study that QuanTech has done and just some very preliminary information and I didn't ask Dr. Peruso if that was available to the public. If it is, I will be glad to give it to anybody that may want it at this stage. I have to talk to him and see if it is available.

Again, two other surveys I've mentioned, the dealer and labor surveys, you can read that, but basically it's just looking at the performance in these two sectors and, again, as far as I know, there has not been any dealer surveys conducted with any of the IFQ programs and so it's going to be -- Hopefully it's going to be interesting and have some useful results.

Again, the dealer surveys match pretty much the same as with the participant survey and, again, we have not gone down the field with it yet. It's up and we've gone to the Federal Register and we're on about the third iteration of it now and hopefully it will be going to OMB in the next thirty to sixty days and after that gets back, it will go into the field and largely it will be more in-person surveys than the participant study was and, again, with a thousand participants, it's tough to get them in the field, but with the dealer survey, at least with larger dealers, there will be a lot of in-person interviews, but there will also be some mail surveys and so forth sent out.

Again, just gathering some opinions by the dealers on their acceptance and impressions of the grouper/tilefish IFQ program, but also looking to see how the IFQ program has changed their business in terms of the infrastructure and equipment, including vessels, whether they've bought or sold vessels as a result of it, and other capital equipment.

Section 4 is one of the more interesting ones and so I'm just going to skip down to it, because I know time is short, but really it's beginning to look at vertical integration and the influence vertical integration has on dealers that also have shares and how do they use these shares to enhance their business operations or change their business operations or have they?

Do they lease or actually, I shouldn't say lease, but give the allocation to fishermen with restrictions that they have to provide the dealers back with their catch and questions of that nature and, again, pre and post -- Going back to Section 2 for a minute, pre and post IFQ operations and asking a number of issues in terms of whether it has changed employment or whether

they can relate that change in employment in their operation to the IFQ and changes in production costs and changes even in product forms that are being produced as a result of the IFQ system and outlets that it's being sold to.

Then just, finally, on this section, opinions regarding the grouper/tilefish IFQ program and, again, it's opinion based and do you think that the IFQ program has resulted in an increase in price, and that's just one example, that you pay the fishermen? Has it led to increased stability in the fishery? Again, I'm not going to get into detail.

We're on I think the third iteration of this and I assume I can give it out if anybody has a strong interest on it at this point in time.

Finally, the labor study. As far as I know, there hasn't been any survey of the crews in any other IFQ fisheries and, again, this grouper/tilefish is much more expanded in that it has both that dealer survey and the crew survey and both studies simply look at the participants of that being the shareholders.

We had one draft of this and I shouldn't say we're behind on it and I'm still hoping to get everything finished this year. It will be largely an in-the-field survey method. It's tough to get information on crewmembers. National Marine Fisheries Service does not have any strong databases on location of crewmembers and so forth and it's going to be in the field sampling, opportunistic sampling, and then what we sociologists call a snowballing effect. You ask about other people they might know that are also crewmembers.

Again, just looking to see whether the grouper/tilefish IFQ program has led to significant changes in income and economic factors and wellbeing and I will leave it at that of the crewmembers. Again, we had just one draft of that at this stage and I believe Larry is working with another university on that. That's where we stand on the different surveys at this point and any questions?

MR. PERRET: Your forty-odd percent that was highly unsatisfied, what was their biggest gripe or complaint?

DR. KEITHLY: Again, as I mentioned, all we have gotten is the basic ten-page survey results from QuanTech. They conducted the survey and I have not looked in detail what the biggest gripe is. Again, if it follows the red snapper, what you will see is that their satisfaction with the program is directly related to

the share that they hold. Those with larger shares are going to be more satisfied with the program and that's how it was with red snapper and I have not looked at grouper yet, but certainly we ought to expect that same thing.

I should mention that's what kind of interesting and before somebody asks me the question, I will throw it out. If you remember the referendum that was taken, I forget what -- It was, what, an 80 percent vote on that of people in favor of the program, but you've got to remember it's just the larger shareholders or actually they weren't shareholders at the time, but the larger -- Those with higher historical catches that voted on that initial referendum and so while 80 percent were in favor, based on that initial referendum, that was just a sample of the fishermen and the sample being truncated towards the larger fishermen.

MS. BOSARGE: It sounds like a very in-depth survey and I love your comments about getting to the crewmen. That's spot on and you've got to go to the dock and then one will lead you to the other, but I did have a question.

We have had some issues in the past where we were trying to collect some more economic data on the red snapper commercial sector and what Doctors Agar and Carter ran into, and I don't want to put words in their mouth, is that the data that they had was mainly on leasing of allocation. In other words, the price when allocation, just for that one year, is transferred from one owner to another or whatever.

It didn't have a lot of actual dollar values on sale of the shares, permanent sale, permanent transfer, and what it actually was bought or sold for, along with they didn't have a lot of data on market value, retail market value, the end of the chain, for red snapper and substitutes for red snapper.

In this, it seems like it's an excellent survey to capture some of that information and we could maybe multitask here and provide a benefit in another way that we may need in the future and is there any opportunity to maybe somehow include questions that would give us that kind of feedback?

DR. KEITHLY: Again, I actually did the survey on the red snapper and it's been four or five years ago now and so I'm having a tough time recollecting. You are only going to get information on the sale price of shares amongst those that sell their shares and that, as I recall, was rather limited at the time.

If you do the survey again, you may find some increased shares being sold and I believe it's in the NMFS annual report what the share price -- I am almost positive that they collect that information and that they have the price of shares or the estimated price.

Now, the problem is -- Well, I will leave it at that. The retail price is just tough to come by. It's not in this survey and the people that we're asking, for the most part, would not know anyway unless they had a retail outlet. On the dealer survey, we do have some questions on who they are selling to and what percentage of their product is going retail or so forth, but unless they are selling it retail, they are just selling it to somebody else and it may go two or three times up the chain before it gets to retail.

We will not have any real information on retail price and, unfortunately, NMFS has never collected -- Well, I shouldn't say that. They used to collect retail prices going back, and I will show my age, about thirty years ago now on shrimp and a few other species, but over the years they -- They found it very expensive to collect that information and it was relatively small sample sizes and so forth and there was a question of the representativeness of those retail sales and so they stopped collecting it, but as far as I know, there is no other place you can get the retail data.

MS. BOSARGE: We are hearing a lot more buying and selling of shares going on when we listen to our public testimony, in the red snapper IFQ anyway, and so maybe if we could try and capture some of that data with a dollar value attached to it and a specific time that it happened, then in the future it could prove useful to us. It's just food for thought.

DR. KEITHLY: Thank you. I will keep it in mind. Any other questions? No? Okay. Thank you.

CHAIRMAN GREENE: Mr. Walker has one more for you.

MR. WALKER: I was just going to say -- I was going to just kind of remind some of the council members that we had some people that weren't too thrilled about the IFQ to begin with and I suspect of it, with some of the testimony -- I remember going to a scoping meeting one time and the gentleman said that I don't want any IFQs and he said I caught over 100,000 pounds every year and I sold all my fish for cash and I have no record and I don't think the lady -- She said, sir, you do understand you're

testifying to the federal government and he never came back to another meeting, but I suspect there were some of those people that were angry about it.

DR. KEITHLY: There's no doubt about it. If you don't have records -- Let me put it this way. I think that over the years, due to a number of issues, federal payments due to hurricanes and so forth and the expectation of IFQs, as well as the logbook system that NMFS has set up and has done a much better job in recent years, it has led to much better records among the fishermen, I think, though there still may be some that evade on it.

CHAIRMAN GREENE: Thank you. Anybody else?

MR. MATENS: Walter, you have been involved in red snapper for a long time and I was just curious whether you had any opinion about the economic efficiency of the allocation?

DR. KEITHLY: About the what? I'm sorry.

MR. MATENS: The recreational/commercial allocation.

DR. KEITHLY: No. I have opinions, but I am not going to state them. It's the school of hard knocks on that question.

CHAIRMAN GREENE: Okay. Thank you. Anything else? With that, we are done with today's portion of the agenda.

(Whereupon, the meeting recessed at 5:20 p.m., June 9, 2015.)

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June 10, 2015

WEDNESDAY MORNING SESSION

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The Reef Fish Management Committee of the Gulf of Mexico Fishery Management Council reconvened at the Marriott Beachside Hotel, Key West, Florida, Wednesday morning, June 10, 2015, and was called to order at 8:35 a.m. by Chairman Johnny Greene.

CHAIRMAN GREENE: We have a quorum of our committee here and we're ready to go. We are going to start off with our Report of the Ad Hoc Red Snapper Charter For-Hire AP, Tab B, Number 12, and so, Dr. Lasseter, if you're ready, we will start and that's

Tab B, Number 10, correct?

REPORT OF THE AD HOC RED SNAPPER CHARTER FOR-HIRE AP

DR. LASSETER: It's actually Tab B, Number 12 and on the screen is the report, but just the motions, just so that you can see them and the audience can see them up on the screen as well and so this is the same report, just with the text cut out and just the motions.

The Ad Hoc Red Snapper Charter For-Hire AP met and we had a very productive meeting. Altogether there is twenty-five motions that they agreed upon to address your charge towards the design and implementation of flexible measures for the management of red snapper by the charter for-hire fleet.

I can go through some of these and these are also for potential management measures to be included in Amendment 41 and so as we're reviewing these, if the committee could give us any guidance on anything that should or should not be elaborated on in further developing Amendment 41.

They discussed data collection first and staff provided them with some information on the progress and the status of the Generic Charter Vessel Reporting Amendment. They also addressed the sunset of sector separation and made a couple of motions in regards to that, to recommend that the council extend the sunset of Amendment 40 for two years and to recommend the council remove the charter for-hire component from Amendment 39.

Then they started discussing something that a group of them had coined permit fishing quotas, or PFQs, and this idea is similar to IFQs except there is no transferability and that the quota is attached to the permit instead of attached to the individual and that seemed to be important to many members of the group that transferability of whatever kind of quota was distributed not be permitted.

They did recommend that the council develop a plan for allocation-based management for the charter for-hire component that can include, but not be limited to, such items as PFQs, permit fishing quotas, tags, cooperatives, and angler management organizations.

Then they passed another motion to provide the council with a definition of how they were defining PFQs, which included a reef fish permit-based allotment that remains attached to the permit and not the individual and that no transferability, leasing, or

selling of the allocation be allowed and that fish must be landed by the vessel that the permit is attached to and that PFQs would allow for an annual opt-in to participate in the federal red snapper fishery. We had a SERO staff in attendance that described a similar program to PFQs that's used in the Pacific bluefin tuna longline fleet.

Then they addressed moving forward with Amendment 41 and that it should have a review incorporated into it and they also addressed what the purpose would be and so I will read that one. It's to recommend to the council that the purpose of Amendment 41 is to increase flexibility for permit holders, to decrease management uncertainty, and increase accountability to catch limits. A long-term goal is to have a year-round fishery that is totally accountable.

Next, the AP began discussing qualifications for the participants in this plan and they recommended that it be open to all federal charter for-hire reef fish permit holders and they recommended that the plan be structured so that permit holders who intend to participate in an allocation-based management plan annually opt in to the program and the purpose of this was to identify the user groups for that year.

Then the third recommendation under the qualifiers was to recommend the council consider how the cost of any new program will be shared between the charter for-hire industry and NMFS under the opt-in scenario.

Next, they discussed tags as a way of validating fish under a potential new management plan and they ended up recommending that all participating vessels in the management plan use carcass tags that could be validated for law enforcement, which will be distributed at the beginning of the year. Tags will expire at the end of the year and this will be to validate all fish harvested under this plan.

Next, they discussed how they would distribute allocation fairly amongst the participants and they noted their intent to not exclude anyone and the motions they passed were to recommend the council pursue allocation options that include all federal charter for-hire reef fish permit holders and to recommend that all participants in the management plan report using electronic logbooks with dockside validation.

An additional recommendation to that was that opt-in participants are subject to dockside intercepts and validated landings by local or federal law enforcement at any time.

Some of the participants noted that under the MRIP dockside intercept component that operators are allowed to refuse inspection and so that was the intent of this motion, was that the participants should not be able to refuse inspection.

Then an additional motion was as a qualifier to participate the participant must meet all licensing requirements for his or her state of operation. There was discussion here pertaining to that each state had different requirements in addition to the federal requirements for a vessel to operate from that state.

Discussion then turned to the issue of dual-permitted vessels and how to address their participation and after implementation of the plan, the AP recommended that there be no intersector trading permitted, that is between commercial and recreational, and they also recommended that any allocation granted to a permitted vessel may only be used during charter for-hire trips.

Next, the AP discussed allocating the quota among the charter vessels and to approach how to allocate, they recommended that an allocation tier level be established and be based on permit capacity, but not be any greater than the approved passenger capacity for that vessel and then they also recommended that the council consider the following allocation scenario to divide quota among participating vessels and that would be that a six-passenger vessel would receive one allocation or one share and multi-passenger vessels with a COI with a permit capacity from seven to twenty-four would receive two allocations or shares and then multi-passenger vessels with a COI of greater than twenty-four, and so twenty-five or more, would receive three allocation or shares.

They also recommended that the timeframe from Amendment 40, the equation that we used for allocating the components of the recreational sector, also be used by the council for apportioning the quota between the charter boats and headboats, which you will hear the headboat report next by Dr. Diagne.

Again, they requested to be convened to continue developing the program as soon as possible and they -- An earlier motion, they recommended a suite of management approaches be explored in the document and that would be appropriate for us to evaluate various management approaches, but they did recommend that their preferred management plan was the use of the permit fishing quotas, PFQs, with tags as a validation tool.

Then, wrapping up, they addressed the idea of stacking or

marrying reef fish permits and passed a motion to both define that and clarify their intent. The AP recommends that the council not allow stacking or consolidating of reef fish permits, defined as stacking meaning putting multiple permits on one vessel so that the landing history might be attached, and consolidation of charter permits is defined as consolidating two or more permits to one permit which contains the catch history of both permits.

Then their final was to recommend to the council to allow the participant in the program to opt in at the level of allocation the participant chooses, up to the maximum amount of the participant's allocation. This motion was driven by that some charter boats that may opt in to participate may not be as heavily vested or have access to red snapper as much as other vessels in other areas and they may not choose to receive all of the allocation that they might otherwise receive.

It was a lot of motions, twenty-five in total, and so we have a lot to work with. Staff has a lot to work with for developing Amendment 41 and so I would like to see if there's any discussion on the motions. Are there any of these management measures you expressly want included or do not want included and if we could discuss a timeline, that would be appreciated. Thank you.

MR. HARLON PEARCE: Ava, thanks for the report and I'm sorry I got on a little late. I had to leave my house. I had DSL problems and so I moved and got in just in time for the end of your testimony, but the three take-aways that I took from this AP, which they did an excellent job and I have to applaud them for the work that they've done, both in the headboat and the charter for-hire AP, because they really were pretty specific about what they really wanted.

Three of the take-aways I looked at was that, first off, that they want electronic logbooks for sure, which I think we've known for a while, but this just continues to validate that thought process that they want real-time monitoring.

The second take-away is that they want to be out of Amendment 39 and be on their own and then, lastly, they would like us to stretch the Amendment 40 sunset for at least two years to give them a little more time to make sure that all the kinks are out of their program so that the council at that time can really discuss what should happen with that sunset in 40 and what we should do with it or not do with it.

I think those are real strong take-aways, other than all the other motions that were made made a whole lot of sense and so I want to thank the APs for a job well done and Ava for a job well done and hopefully at the council we can help the charter for-hire industry and the headboat industry move ahead into the future.

CHAIRMAN GREENE: Thank you for that, Harlon. We appreciate it. Any other discussion?

MR. WILLIAMS: Regarding those motions about data collection and electronic logbooks, we received a press release last week or the week before last of three or three-and-a-half million dollars that NMFS has received to do this kind of work and will this -- Can anybody tell me how that will solve this problem right here that they're referencing, the need for being accountable and being able to record their information in some kind of a flexible system?

MR. PEARCE: I think I can help with that, Roy. We have worked very hard to try and get this volunteer VMS program off the ground. That grant proposal represents the work that we've done. The grant proposal will outfit 350 vessels with VMS. It will have data points that are in line with MRIP and the validation for the program will be done by MRIP.

There is a statistician hired that MRIP wants to be hired that will begin to calibrate for the first time volunteer data right along with MRIP and so this is very important step in the development of a real-time program for the charter vessels and I think it's important, because it gives us time to -- It's sort of a precursor to whatever we do in the future. It will prove up or prove down VMS and it will do a lot of positive things, but it will get the charter fleet ready to go and understanding what we need to do for them to be in the real-time world.

I think that it's a two-year program and so it fits perfectly with developing the electronic reporting amendment that we're doing at the council now and so I do believe that all of this is very timely and working very well together and I am very glad to see that the charter guys are very interested in this, but this will be a wonderful grant proposal and it's just perfect for what we need right now for the charter vessels.

MR. WILLIAMS: Thanks, Harlon.

CHAIRMAN GREENE: Thank you. Any other discussion? Dr. Stunz.

DR. STUNZ: Thank you, Mr. Chair, for letting me address your committee and I just wanted to follow up on some of Harlon's comments. I think the proposal he was just discussing is a great start, but I am not sure it covers the entire fleet, which I think that's going to be very important that we have everybody reporting.

Some lessons learned in work in other similar pilots are that it needs to cover everyone and some of the things going on now is we have a good support or at least recommendation that it needs to be mandatory and that doesn't necessarily mean that if it's mandatory that you're going to get everyone to report, but I think we need to start that way.

It needs to probably be tied to the reef fish permitting in some way, to ensure that you're getting the good news, unlike some of the other pilots going on in the pure private recreational. I think these guys are a manageable group and that this can be done, but when you start having people maybe not reporting or other issues going on, particularly in the validation realm, it can be problematic and so for this to succeed, I think we need to really think long and hard about it and think about some of these validation and mandatory and making sure every person and every permit is doing this.

MR. PEARCE: Mr. Chairman, Dr. Stunz, I agree completely with what you're saying. You know it was just going to be impossible to really get everybody involved in this first program that we're doing.

You and I were involved in Seattle two or three years ago and I guess time flies so fast that I'm not sure how long ago it was, but this thought process actually started with our discussions two or three years ago in Seattle with NFWF and with everyone else. That's where all these thought processes came from and I agree with what you're saying about people maybe not reporting or not doing this and doing that, but that's what this program is going to prove up.

If I'm a charter boat sitting out there right now, I am telling myself I had better make this work. If I want to change my industry into the future and I want to do our job correctly in the future, I better make this work and so this is giving them the opportunity to make sure everybody reports.

If I'm a charter boat that's got a guy next to me that's giving me trouble, you better get on his butt, because we've got to make sure that this will work or not work and that's what this

program is going to prove up and it's going to prove just how sincere the charter vessels are for moving their fishery into the future.

Maybe they aren't. Maybe they don't want to, but at least we'll get some really clear ideas from this grant what the real world is all about and I agree that it's not a complete fishery, but it's enough of a fishery and MRIP is involved, which is really wonderful, and calibrating it with MRIP and all these things are positive moves and it's up to the charter boats to make sure it's not a negative move.

CHAIRMAN GREENE: Thank you, Mr. Pearce. Mr. Anson.

MR. ANSON: Thank you, Mr. Greene. Ava, I know it's the last motion and it could have been the last item taken up during the meeting, but they made a recommendation to the council to opt in or opt out or to find a level of participation and did they have any discussion as to what would happen to the allocation or share that would be remaining? Would they have that go into a general pool and that be -- Again, they probably just ran out of time, but I'm just curious if any discussion had occurred regarding that topic.

DR. LASSETER: I don't remember off the top of my head and I apologize if there was a discussion about a pool, but a lot of these motions were -- The group was really trying to build consensus amongst everybody and so that's where some of those motions came from, was just that they're wanting to not leave anybody out and they're wanting to be inclusive and so I think that was the sense from the group and the drive for these motions.

CHAIRMAN GREENE: Kevin, I'm sorry and I was writing a note, but I was the council representative there and what was the question you were asking?

MR. ANSON: Just realizing that it could have been the end of the day and it may not have been really the charge of the group at the time, but if there was any discussion that came about relative to the last recommendation to the council that's listed on the report to allow the participant in the program to opt in and define the level of participation relative to their share at their vessel size or the permit size and I'm just curious to know what would happen to those shares and would they just go into a general pool and randomly be distributed or how would that --

CHAIRMAN GREENE: Well, I was there and I remember this, because I was really taken by all the work that was done by all the AP members. I think we did a good job populating that AP and I think everybody was engaged and given ample opportunity to speak and share differences if they had any, but this particular item that you're asking about, the opt in or opt out, came from Captain Ed Walker out of Florida and he had a really neat deal, because his comment was in my part of the Gulf, I don't need a whole lot of red snapper and so if I just say, well, I am not going to -- Instead of getting a large number of fish, I only need thirty or forty snapper and that would probably get me through the whole year and so I am going to declare that amount and leave the remainder of mine in the pool to be divided up by the other vessels who need them.

I think this was one of those things that you look at where you have people in South Florida who don't need red snapper, where potentially in our area you may not need grouper and so if there was something down the road that was grouper driven, perhaps people who wouldn't need grouper wouldn't take as many or so on and so forth.

It was a neat idea and concept, because I guess there's a lot of people in this part of the State of Florida who don't need as many and they were just going to take what they thought they would need and leave the remainder for others to be divided up equally and spread out throughout the fishery. Any further discussion?

MR. WILLIAMS: What's the next step here, either Johnny or Ava? Are we going to have them meet again or is it time to begin preparing an options paper or where do we go from here?

DR. LASSETER: The next step would be we would develop a draft options paper and we would request guidance as to when we should bring that back to you and so staff could work on that and the AP requested to be reconvened to continue developing this and I think it would be more beneficial if that occurred after an options paper had been developed, to allow them to comment on that.

CHAIRMAN GREENE: My opinion would be that there is a sunset provision in here and so any way to move this forward as quickly as possible should be, but I understand what you're saying about the development of an options paper. Any other discussion? Not seeing any and, Dr. Stunz, I want to go back to a comment you made earlier about electronic logbooks and mandatory reporting.

I agree with you and I think it should be 100 percent, but with the grant the way it went down and getting the funding and getting 350 vessels in the program, you know it's going to take a while for Amendment 41 to be developed and so while it's being developed, I think that the 350 vessels scattered throughout the Gulf everywhere and everybody who wants one would be able to get one would be a good way for those people to take in -- I have never used one, and ELB, and I've never been a part of one and I would like to have the opportunity to learn how to use one that's not mandatory and that there wouldn't be implications if I messed up or if I was not sure how to use the equipment.

I think that while Amendment 41 is being developed, and I think it's the intent that everyone wants to go to mandatory implementation for them, this would be a great way for it to build industry support amongst the users and allow them to kind of say, hey, I really liked this, but I didn't like that and potentially work back and forth with the developers of the software and try to get it right so that whenever Amendment 41 does come online that everybody is ready and everybody knows what is expected of them and at least that's the way I see it. I don't know if that gives you any direction, but go ahead, Dr. Stunz.

DR. STUNZ: Johnny, I agree 100 percent with you and maybe I wasn't as clear and I was aware that 350 in VMS isn't going to cover everyone, but I don't know that it's necessary that everyone have a VMS.

I mean there's obviously going to be guys that don't want that or maybe don't have the capacity to do that and so I think that there is availability for multiple reporting options and I just don't think it should be -- Everyone should report at some level and if you want to argue that VMS might be the gold standard, because you know they're out and you know what is going on -- There are some issues with that right now in terms of the reporting side of that, the actual catch reporting.

In other words, I think some thought needs to go into exactly how that would work by this group and others, but everybody should have at least an opportunity and my opinion would be a mandatory reporting through some type of mechanism.

CHAIRMAN GREENE: I agree and I would encourage that if there's any other types of programs out there that would like to be tested or moved forward that that ability come forward in some way somehow to be presented to other people and have multiple types of stuff tested at the same time, so that whenever it does

happen everybody is ready and people can talk amongst themselves and say, hey, I like this part of this program or this part of this program, but I really didn't like this and I really didn't like that.

I don't see any attempt to try to go any one direction. However, this seems to be the only direction moving at this time, if that makes sense to you. Mr. Pearce, go ahead.

MR. PEARCE: Dr. Stunz, I agree with you. I think that we've got plenty of time to develop those different thought processes as to what equipment or what gear will be used. It's just very important to me that they want to do it in the first place, as a charter industry, and that they're moving ahead or trying to create a business plan for themselves.

I do agree that there will be other options as we move down this path and like Johnny said, I think this was the one that we could get and grab pretty quickly and so we're going to do that, but I completely agree with you that we have to sort of source out and look at what the better options for or what options a particular charter vessel wants to use for his particular boat, but in this program, we're going to try the VMS idea and I think it's good that we're doing the gold standard, because we're going to see if it's too far or not far enough or if we've got to back up a little bit.

It's just going to give us some real ideas of what works and doesn't work in that VMS idea and if the need to simplify is there or if we need to look at different things like your iSnapper, that's perfect. I mean that's not a problem at all. I just think that this is a great start and that as we move down this path of electronic reporting that it's just a wonderful deal.

CHAIRMAN GREENE: Thank you, Mr. Pearce. Any more discussion?

MR. WILLIAMS: Mr. Chairman, would it be appropriate to offer a motion to begin development of an options paper for Amendment 41?

CHAIRMAN GREENE: Yes, sir, I believe it would.

MR. WILLIAMS: I would like to do so then and I would move that we direct staff to begin developing an options paper for Reef Fish Amendment 41 including consideration of the motions from the advisory panel, from the Charter For-Hire Advisory Panel.

CHAIRMAN GREENE: I am not sure if we need this motion or not. Staff, do we need a motion to continue forward?

DR. LASSETER: No, we don't need a motion to continue forward. You have already passed motions to initiate development, but what I see in this motion is the end part, that you are recommending that we include the motions from the AP, and so that's useful.

CHAIRMAN GREENE: Thank you for that clarification. We have a motion on the board and, Mr. Williams, does it read as you wish?

MR. WILLIAMS: Yes.

CHAIRMAN GREENE: Is there a second to the motion? Second by Mr. Walker. **Is there any opposition to this motion? Seeing no opposition, the motion carries.** Okay, Dr. Lasseter, does that complete everything you had for this?

DR. LASSETER: It does and we are going to plan to bring the options paper to you in August.

CHAIRMAN GREENE: Thank you very much. Okay. Moving along to the next agenda item, which would be the Ad Hoc Reef Fish Headboat AP, Dr. Diagne.

REPORT OF THE AD HOC REEF FISH HEADBOAT AP

DR. DIAGNE: Thank you, Mr. Chair. Good morning. The meeting was well attended and also very productive. The AP made a total of ten motions and I will just summarize the major points that they discussed.

If you recall, the Headboat AP is a reef fish AP. It's a Reef Fish Headboat AP and so one of the first issues that was discussed was what species would be included in the plan that would be developed in Amendment 42. The AP discussed that and would like to consider the possibility of including what we call the six major reef fish species, meaning gag, red grouper, red snapper, greater amberjack, triggerfish, and black grouper. They would like to explore the idea of including all of those six species in the plan moving forward.

Subsequent discussions reaffirmed their desire to have the headboat as a standalone component and essentially they passed a motion specific to that, that headboats be acknowledged as a standalone component of the recreational sector. This would include all vessels with federal for-hire reef fish permits that

participate in the Southeast Region Headboat Survey and to be more specific, they defined what is meant by headboat in this sense in the Southeast Survey.

In terms of the management approach, or approaches plural, to be considered in Amendment 42, the AP discussed traditional management approaches and looked at what is available and essentially indicated that they are interested in allocation-based management approaches and that would cover also some of the ideas mentioned by Dr. Lasseter, including PFQs, tags, et cetera.

Further, discussing the issue of allocation-based management, they also expressed a desire to at least explore opportunities for transferability, but they were very clear in indicating that that transferability would not include intersector trading, if it were to be considered.

In terms of discussing monitoring, VMS was discussed and the AP passed a motion indicating that they would recommend to the council that enforcement tools for monitoring include VMS, tags, and electronic logbooks.

Of course, these things come at a cost, but the AP expressed a willingness to bear some of the cost, if you will, and indicated that the council should, if it so chooses, consider how management costs could be shared between the agency and the headboat component.

Essentially this meeting provided a lot of elements, if you would, that could be considered during the development of Amendment 42 and throughout the discussions, references were made to the headboat EFP that we have still going and some of the major successes of the program were highlighted and the AP passed a motion to recommend that the council considers the key features of the headboat EFP when designing this allocation-based management program for the headboat sector and, in closing, they also requested the opportunity to meet again and further assist in the development of Amendment 42 and that is, I think, the summary of their recommendations. Thank you.

CHAIRMAN GREENE: Thank you, Dr. Diagne. Mr. Pearce.

MR. PEARCE: Assane, good report and thank you and, again, I've got to applaud the Headboat AP for doing really a wonderful job and some of the take-aways I got from this is that, first off, they want to be a standalone component of the recreational sector and that falls right in line with some of our data

collection discussions that we had a couple of days ago that possibly the headboat electronic reporting should move independent of the charter for-hire, to make sure it moves on its own, so to speak, and they also want to be part of the Amendment 40 thought process as a subsector of the fishery when it comes to the allocation-based idea of it.

Those are all important thought processes and some of the things that I was impressed with also was, of course, they want VMS, which they are saying they want daily reporting, which is very important when it looks at real-time data, but all of a sudden the word "tags" come up and they want to use tags to improve enforcement and so I think that's an important step into the future to understand how this fishery will grow and how it fill fit into the allocations and stay accountable and do their job correctly and make it a lot easier for enforcement to do their jobs, but all told, I think both of these APs have done a wonderful job and sort of independently done their own thing and so I believe they've done a great job and I've got to applaud them both and I hope that the council as we move into the future takes their considerations and runs with them, because I think they are very important. Thank you.

CHAIRMAN GREENE: Thank you. Any further discussion?

MR. WILLIAMS: What is the next step in this, Assane? Where do you go from here?

DR. DIAGNE: Yes, Mr. Williams, and the next step is for us to prepare a draft options paper and we would try to prepare it as soon as possible and bring it back, let's say, for example, for the August meeting, if permitted.

CHAIRMAN GREENE: Thank you. Any further discussion?

MS. LEVY: Just a question. Assane, you mentioned the idea of looking at transferability, but not intersector trading. Are they referring to trading between commercial and recreational or -- Because this would then divide the recreational into headboat and charter and so was it no intersector trading between anyone or no commercial/recreational or -- Do you understand what I am trying to say?

DR. DIAGNE: Yes, Ms. Levy. I think their main concern was basically between recreational and commercial and some discussions about dually-permitted vessels, essentially, and so no trading between the recreational and the commercial.

CHAIRMAN GREENE: Thank you. Any other discussion? Okay. Seeing no further discussion, I guess that wraps up the Reef Fish Committee. There was no other business noted and if there's no other business to come before this committee, we are adjourned.

(Whereupon, the meeting adjourned at 9:10 a.m., June 10, 2015.)

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PAGE 11: Motion that the committee approve Alternatives 2a, 2b, and 2c, which are size limits, seasons, and bag limits for yellowtail snapper, to delegate those to the State of Florida as the preferred alternative. The motion carried on page 12.

PAGE 14: Motion that Options 2d and 3d be moved to the Considered but Rejected. The motion carried on page 14.

PAGE 15: Motion to remove the discussion of the State of Florida submitting management plans. The motion carried on page 16.

PAGE 23: Motion in Action 2 to clarify that the action pertains to the whole Gulf and South Atlantic Council jurisdictions. The motion carried on page 24.

PAGE 26: Motion to move Action 2d and 3d to Considered but Rejected in Action 3. The motion carried on page 26.

PAGE 27: Motion that Action 3 apply to waters adjacent to the State of Florida. The motion carried on page 27.

PAGE 27: Motion that Action 4 apply throughout the Gulf and South Atlantic Council jurisdictions. The motion carried on page 28.

PAGE 32: Motion that Alternative 4 in Action 6 be moved to Considered but Rejected. The motion carried on page 32.

PAGE 34: Motion to apply Action 6 throughout the Gulf and South Atlantic jurisdictions. The motion carried on page 34.

PAGE 34: Motion that Action 7 apply to waters adjacent to the State of Florida. The motion carried on page 34.

PAGE 34: Motion that in Action 7 that Alternative 2d be moved to Considered but Rejected. The motion carried on page 34.

PAGE 45: Motion to remove Actions 10 and 11 in the options paper and replace them with Actions 6, 7, and 8 in the restructured document. The motion carried on page 46.

PAGE 74: Motion to remove hogfish from the Gulf FMU and add the West Florida Shelf hogfish stock. It is the council's intent to allow the South Atlantic Council to manage the East Florida/Florida Keys stock. The motion carried on page 74.

PAGE 95: Motion that the council initiate a plan amendment to define a West Florida Shelf hogfish stock with associated status determination criteria and ACLs. The motion carried on page 96.

PAGE 98: Motion to retain the item to restrict transfer. The motion carried on page 99.

PAGE 102: Motion to delete the item that reads "allow commercial shares without a commercial reef permit to harvest the allocation associated with those shares". The motion carried on page 103.

PAGE 104: Motion to accept the language in the third box to limit the amount of shares/allocation non-permitted IFQ accounts may possess. The motion carried on page 104.

PAGE 113: Motion to eliminate "place restrictions on the transfer of IFQ allocations and shares". The motion failed on page 114.

PAGE 116: Motion to strike the fourth box to adopt a rollover provision for unused IFQ allocation. The motion carried on page 117.

PAGE 145: Motion to direct staff to begin developing an options paper for Reef Fish Amendment 41 including consideration of the motions from the Charter For-Hire Advisory Panel. The motion carried on page 146.

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Reef Fish Committee: Action Schedule for Tab B (revised 7/30/2015)

Agenda Item IV: Public Hearing Draft Amendment 39 – Regional Management of Recreational Red Snapper

Timeline Status: Public hearing draft; Final Action in January 2016

Council Input and Next Steps: Staff will review the actions and alternatives in the updated draft. The Committee should review the current preferred alternatives and select a preferred alternative for Action 2. The Committee should further discuss the intended timeline for the document, including the scheduling of additional public hearings.

Agenda Item V: Updated Options Paper – Framework Action to set Gag Recreational Season and Gag and Black Grouper Minimum Size Limits

Timeline Status: Options paper; Final Action in October

Council Input and Next Steps: After reviewing an earlier options paper and analysis indicating a recent decline in gag CPUE indices, the Council voted to retain the existing gag ACLs and ACTs, add an action to consider increasing the recreational gag minimum size limit to 24 inches, and add a similar size limit action for black grouper. This required a major revision to the options paper, and an analysis of the increased size limit on season length and discard mortality. This analysis could not be completed in time for a final action document. Therefore, a revised options paper is presented for the Committee to review and, optionally, select preferred alternatives. A final action document will then be prepared for the October Council meeting.

Agenda Item VI: Final Action – Amendment 28 – Red Snapper Allocation

Timeline Status: Final Action

Council Input and Next Steps: The Committee will review the final version of the amendment and the associated codified text. The Committee is expected to recommend that the Council deem the codified text as necessary and appropriate and submit Reef Fish Amendment 28 to the Secretary for review and implementation.

Agenda Item VII: Options Paper – Framework Action to Allow NMFS to Withhold a Portion of the Commercial Red Snapper Quota in 2016

Timeline Status: Final Action

Council Input and Next Steps: The Committee will review the framework action and select a preferred alternative. The Committee is expected to recommend that the Council deem the codified text as necessary and appropriate and submit the framework action to the Secretary for review and implementation.

Agenda Item VIII: Draft Framework Action – Modify Gear Restrictions for Yellowtail Snapper

Timeline Status: Options Paper

Council Input and Next Steps: The Committee will need to review the action and alternatives presented for appropriateness, and determine if any alternatives should be added or removed. Staff will plan on bringing a final draft of the document to the Council for consideration in October.

Agenda Item IX: Options Paper – Amendment 42 – Federal Reef Fish Headboat Management

Timeline Status: Draft Options Paper

Council Input and Next Steps: The Committee will review the management approaches considered in the draft options paper. The Committee is expected to suggest additional management approaches (if any) to include in this amendment. In addition, the Committee is expected to discuss a timeline for the development of a public hearing draft.

Agenda Item X: Options Paper – Amendment 41 – Federal Charter-for-Hire Red Snapper Management

Timeline Status: **Draft** Options Paper

Council Input and Next Steps: Staff will review the management approaches considered in the draft options paper. The Committee should suggest additional management approaches (if any) to include in the document. In addition, the Committee should discuss a timeline for the development of a public hearing draft, and consider whether to convene the Ad Hoc Red Snapper Charter For-hire AP.

Agenda Item XI: Discussion – Ad Hoc Private Recreational AP

Timeline Status: Discussion on whether to take action to create an AP

Council Input and Next Steps: In June, the Council voted to create an Ad Hoc Private Recreational Committee to discuss possible management changes to the private recreational fishery. However, some Council members wanted to get input on ideas from the private recreational fishing community, including the results for the Council's RAP sessions and state workshops that were held recently. The Council therefore voted that staff take no action on formation of the Ad Hoc Private Recreational Committee before the August 2015 Council meeting. At this meeting the Committee should review the workshop comments received and:

1) Decide whether to proceed with forming the AP. If the Council proceeds,

2) Develop a charge and some ideas for topics to be addressed,

3) Approve staff to advertise for applicants.

Agenda Item XII: Other Business

Timeline Status: Additional items that can be brought up for discussion, but not action since they have not been announced

Council Input and Next Steps: Additional items may be brought up for discussion by Committee members, time permitting. If the committee wishes to pursue action, then action can be scheduled at a future Council meeting. There is currently one item requested under Other Business:

a. Discussion of gray triggerfish bag and size limits

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Tab B, No. 4
7/31/2015

Regional Management of Recreational Red Snapper

Public Hearing Draft for Amendment 39
to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico

August 2015

This is a publication of the Gulf of Mexico Fishery Management Council Pursuant to National Oceanic and Atmospheric Administration Award No. NA10NMF4410011.

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Gulf of Mexico Reef Fish Amendment 39
Draft Environmental Impact Statement (DEIS) Cover Sheet

Regional Management of Recreational Red Snapper Amendment 39 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico.

Abstract:

Responsible Agencies:

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Type of Action

( ) Administrative
(X) Draft
( ) Legislative
( ) Final

Filing Dates with EPA
Notice of intent (NOI) to prepare EIS published: May 13, 2013
Draft environmental impact statement (DEIS) filed with EPA:
DEIS comment period ended:
EPA comments on DEIS:

DEIS TABLE OF CONTENTS

ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
ALS	Accumulated Landings System
AM	accountability measure
BP	British Petroleum
CEP	Conservation Equivalency Plan
Council	Gulf of Mexico Fishery Management Council
EFH	Essential Fish Habitat
EFP	exempted fishing permit
EIS	Environmental Impact Statement
EJ	Environmental Justice
ESA	Endangered Species Act
FMP	Fishery Management Plan
Gulf	Gulf of Mexico
IFQ	individual fishing quota
LDWF	Louisiana Department of Wildlife and Fisheries
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
mp	million pounds
MRFSS	Marine Recreational Fisheries Survey and Statistics
MRIP	Marine Recreational Information Program
MSST	minimum stock size threshold
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OFL	overfishing limit
PDF	probability density function
SAV	submerged aquatic vegetation
SEAMAP	Southeast Area Monitoring and Assessment Program
Secretary	Secretary of Commerce
SEDAR	Southeast Data Assessment and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office of NMFS
SRHS	Southeast Region Headboat Survey
SSB	spawning stock biomass
SSC	Scientific and Statistical Committee
SPR	spawning potential ratio
TAC	total allowable catch
TL	total length
TPWD	Texas Parks and Wildlife Department
VEC	valued environmental components
ww	whole weight
YPR	yield per recruit

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EXECUTIVE SUMMARY

[To be completed.]

FISHERY IMPACT STATEMENT

[To be completed. Not a part of the DEIS.]

CHAPTER 1. INTRODUCTION

1.1 Background

Currently, the recreational harvest of red snapper in federal waters of the Gulf of Mexico (Gulf) is constrained by a 2-fish bag limit, 16-inch total length (TL) minimum size limit, and a fishing season that begins on June 1 and closes when the annual catch target (ACT) is projected to be caught. Additional federal regulations pertaining to recreational red snapper,[1] such as permit requirements and gear restrictions, are provided in Appendix G. Since 1996, the recreational fishing season for red snapper in federal waters has become progressively shorter. Despite annual increases in the recreational annual catch limit (ACL) since 2010 (Table 1.1.1), shorter federal seasons have continued as the quota continues to be caught in a shorter amount of time.

Regional Management

- Would allow regions (i.e., Gulf States) to specify some management measures for anglers' recreational harvest of red snapper.
- The ***Delegation*** provision in the Magnuson-Stevens Act can be used to provide authority to a state to regulate fishing vessels beyond their state waters, provided its regulations are consistent with the fishery management plan and rebuilding timeline. Delegation requires a ¾ vote of Council members to pass.
- ***Conservation equivalency*** **(CE)** refers to allowing individual regions to propose and establish varied regional management measures such that the aggregate harvest and impacts on the stock from all regions is equivalent to the conservation protections on the resource provided by Gulf-wide management measures.

Fishermen from different areas of the Gulf have requested more flexibility in recreational red snapper management so that regulations provide greater socioeconomic benefits to their particular area. The Gulf of Mexico Fishery Management Council (Council) is considering regional management as a way to provide greater flexibility in the management of recreational red snapper. In this amendment, regional management refers to allowing recreational regulations to be different for identified regions of the Gulf, in contrast to uniform recreational regulations applied to all federal waters in the Gulf. This document considers two approaches for implementing regional management (Action 1): 1) ***delegation*** of limited authority to regions to specify management measures and 2) development of ***conservation equivalency plans***, in which each region specifies the management measures (fishing season, bag limit) to be used to constrain harvest to the region's portion of the recreational sector ACL. Under either approach, regionally specific management measures may be more appropriate to the fishing preferences of

[1] Recreational red snapper refers to red snapper harvested by the recreational sector.

local fishermen. For example, regional regulations could accommodate different tourist seasons or rough weather conditions, thereby optimizing fishing opportunities around the Gulf.

Table 1.1.1. Recreational red snapper federal season lengths, quotas, and landings.

Year	Season dates in federal waters	Number of days open	Recreational Quotas	Recreational Landings
1996	January 1 – December 31	365	4.47 mp	5.339 mp
1997	January 1 – November 27	330	4.47 mp	6.804 mp
1998	January 1 – September 30	272	4.47 mp	4.854 mp
1999	January 1 – August 29	240	4.47 mp	4.972 mp
2000	April 21 – October 31	194	4.47 mp	4.750 mp
2001	April 21 – October 31	194	4.47 mp	5.252 mp
2002	April 21 – October 31	194	4.47 mp	6.535 mp
2003	April 21 – October 31	194	4.47 mp	6.105 mp
2004	April 21 – October 31	194	4.47 mp	6.460 mp
2005	April 21 – October 31	194	4.47 mp	4.676 mp
2006	April 21 – October 31	194	4.47 mp	4.131 mp
2007	April 21 – October 31	194	3.185 mp	5.809 mp
2008	June 1 – August 4	65	2.45 mp	4.056 mp
2009	June 1 – August 14	75	2.45 mp	5.597 mp
2010	June 1 – July 23; Oct 1 – Nov. 21 (Fri, Sat., & Sun.)	77	3.403 mp	2.651 mp
2011	June 1 – July 18	48	3.866 mp	6.734 mp
2012	June 1 – July 16	46	3.959 mp	7.524 mp
2013	June 1 – June 28	42	5.390 mp	9.659 mp
2014	June 1 – June 9	9	5.390 mp	3.867 mp
2015	June 1 – June 10 (private angling) June 1 – July 14 (for-hire)	10 44	7.01 mp	T.B.D.

Note: Quotas and landings are in millions of pounds (mp) whole weight. In 2014, the season length was estimated based on an ACT of 4.312 mp, reduced from the 5.390 mp quota. Source: Southeast Fisheries Science Center (SEFSC) annual catch limit dataset, including calibrated landings from the Marine Recreational Information Program (MRIP), Texas Parks and Wildlife Department (TPWD), and the Southeast Region Headboat Survey (SRHS) (May 2015).

Regional management would allow for certain management measures (specifically bag limits and season dates) to vary around the Gulf, enabling the establishment of recreational red snapper management measures most suited to a given region. Regional management may not result in additional fishing days, particularly if a region establishes its season during periods of greatest fishing effort. However, providing flexibility to the regions to establish management measures is expected to result in social and economic benefits by providing optimal fishing opportunities for a region's portion of the recreational ACL (quota). Nevertheless, proposed regional management measures must achieve the same conservation goals as the current federal management measures (i.e., constrain the catches of participating fishermen to the region's allocated portion of the recreational sector ACL). Under regional management, red snapper would remain a federally managed species. The Council and the National Marine Fisheries Service (NMFS) would

continue to oversee management of the stock. This includes continuing to comply with the mandate to ensure the red snapper recreational ACL is not exceeded and that conservation objectives are achieved. The Council's Scientific and Statistical Committee would continue to determine the acceptable biological catch (ABC) for red snapper, while the Council and NMFS would determine the total recreational sector ACL which would be allocated among the regions, and potentially components, of the recreational sector. All federal regulations for the harvest of red snapper would remain effective. The existing bag limit, minimum size limit (as specified in Action 4), and season start date would be designated the default federal regulations, and would be applied to a region not participating in regional management or to a region for which regional management is not active. NMFS would retain authority for the remaining management regulations (provided in Appendix G) including implementing ACL adjustments, regulating permits, and managing the commercial red snapper individual fishing quota (IFQ) program.

There are benefits and challenges to adopting regional management. The benefits include providing regional flexibility in the design of management measures. The consideration of regional differences in establishing regulations may allow for greater social and economic benefits. For example, the distance from shore that anglers must travel to fish and the optimal times of year for fishing due to weather conditions or tourist seasons may vary, favoring different fishing seasons around the Gulf. The challenges of a regional management approach include a more complex regulatory program, because the recreational ACL (and potentially component ACLs, see next section), would need to be divided and managed separately for each region. Regional management also requires cooperation among federal and state marine resource managers. Effort shifting between regions may reduce the effectiveness of regionalized management. Also, the geographic distribution of the stock may change as the stock rebuilds, resulting in a pattern of landings that may not reflect the original allocation that is distributed. Monitoring catches on a regional level may be more costly than on a Gulf-wide level and require increased sample sizes for data collection. There may also be enforcement concerns, especially at regional boundaries, should fishing seasons and bag limits vary between regions.

ACL and ACT Designations for Regions and Components

Prior to the implementation of Amendment 40, red snapper catch levels were established as quotas that were functionally equivalent to an ACL. Amendment 40 formally adopted the language of ACLs for red snapper, such that in all regulatory actions for red snapper subsequent to Amendment 40, the quota for each sector shall be the ACL for that sector, and the sum of the quotas shall be the stock ACL (GMFMC 2014).

Amendment 40 also established two components within the recreational sector: a private angling and a federal for-hire component, and apportioned the recreational sector ACL between the components. However, the final rule continued to apply the term quota to each component's respective portion of the recreational sector ACL, which are termed component quotas. The final rule specified component ACTs, which are reduced from the component quotas by the established buffer. Thus, there are component quotas (functionally equivalent to component ACLs) and component ACTs. Because of the conceptual relationship between ACLs and ACTs laid out in the national standard 1 guidelines, and to avoid awkward wording in discussing the

components of the recreational sector in this amendment, the term component ACL is functionally equivalent to component quota.

If regional management is implemented, regional ACLs (and potentially component ACLs) will be established for each region's designated portion of the recreational sector ACL, such that the sum of the regional ACLs (and potentially component ACLs) is equal to the recreational sector ACL. Regional ACLs and component ACLs will be reduced by the established buffer, resulting in respective regional ACTs and component ACTs.

History of Council Discussion on Regional Management

The Council has explored the concept of regional management for red snapper for several years. Regional management was discussed by the Ad Hoc Recreational Red Snapper Advisory Panel at its October 2008 meeting, and the Red Snapper Advisory Panel at its December 2009 meeting. Staff presented papers exploring red snapper regional management to the Council at the January 2009, August 2010, and October 2010 meetings.[2]

In June 2012, the Louisiana Department of Wildlife and Fisheries presented a proposal to the Council for a recreational red snapper regional management pilot program. The Council requested that Louisiana provide further details of their proposed regional management plan for red snapper, and instructed staff to begin developing a plan amendment for regional management of recreational red snapper. At the August 2012 meeting, the Council requested development of a scoping document for regional management of recreational red snapper, which was provided and discussed at the October 2012 meeting. Scoping meetings were held in January 2013 (Appendix C). The Council reviewed an options paper at its April 2013 meeting, and the initial public hearing draft at its June 2013 meeting. Public hearings were held around the Gulf in August 2013 and the comments were presented to the Council at its August 2013 meeting.

By the February 2014 meeting, the Council had selected preferred alternatives for all actions except for how to allocate the recreational red snapper quota among the regions. At its February 2014 meeting, Council staff was directed to postpone further work on the regional management document until progress is made on how to allocate the quota among the regions. In turn, the Council moved forward with Amendment 40 (GMFMC 2014) and approved the action at its October 2014 meeting. Amendment 40 established distinct private angling and federal for-hire components, allocated the recreational sector ACL between the components, and established separate in-season closure provisions for each component; the amendment also included a three-year sunset on the provisions established.

At its January 2015 meeting, the Council reviewed a revised set of actions for regional management reflecting the regulatory changes made to recreational red snapper management since work on the document was postponed. These changes included new accountability measures (AMs) and the establishment of separate components and quotas for the recreational harvest of red snapper. At its June 2015 meeting, the Council requested staff to hold an additional set of public hearings, to be held after the October 2015 Council meeting.

[2] http://www.gulfcouncil.org/resources/briefing_book_archive.php

1.2 Purpose and Need

The **purpose** of this action is to provide flexibility in the management of the recreational sector's harvest of red snapper by restructuring the federal fishery management strategy to allow for the regional variation of management measures, and developing AMs for recreational overages to better account for biological, social, and economic differences among the regions of the Gulf.

The **need** is to adhere to the national standards (NSs) of the Magnuson-Stevens Act and to reconsider fishery management within the context of the regions of the Gulf: to prevent overfishing while achieving, on a continuing basis, the optimum yield from the harvest of red snapper by the recreational sector (NS 1); take into account and allow for variations among, and contingencies in the fisheries, fishery resources, and catches (NS 6); and provide for the sustained participation of the fishing communities of the Gulf and to the extent practicable, minimize adverse economic impacts on such communities (NS 8).

1.3 History of Management

This history of management covers events pertinent to recreational red snapper and the Council's consideration of regional management for the recreational harvest of red snapper. A complete history of management for the fishery management plan is available on the Council's website.[3]

Prior to 1997, the recreational red snapper season was open year-round. Catch levels were controlled through minimum size limits and bag limits. The Sustainable Fisheries Act of 1996 required the establishment of quotas for recreational and commercial red snapper that, when reached, result in a prohibition on the retention of fish caught by each sector, respectively, for the remainder of the fishing year. From 1997 through 1999, NMFS implemented the recreational quota requirement through an in-season monitoring process that projected closing dates a few weeks in advance. For the years 1997 through 1999, the recreational red snapper season was closed earlier each year (Table 1.1.1). In 1999, an emergency rule temporarily raised the recreational red snapper minimum size limit from 15 to 18 inches TL towards the end of the season from June 4 through August 29 in an attempt to slow down the retained harvest rate. Without this emergency rule, the season would have closed on August 5. However, the rule resulted in a large increase in dead discards and the size limit was allowed to revert back to 15 inches TL the following year. Additional details regarding the seasons and regulation changes for red snapper are presented in Hood et al. (2007).

A February 2000 regulatory amendment (GMFMC 2000) replaced the system of in-season monitoring and closure projections with a fixed season based on a pre-season projection of when the recreational quota would be reached. The season for 2000 and beyond was initially set at April 15 through October 31, with a 16-inch TL minimum size limit, 4-fish bag limit, and zero bag limit of red snapper by the captain and crew of for-hire vessels. Shortly before the regulatory amendment was submitted to NMFS, the Council, at the request of representatives of the for-hire industry, withdrew the zero bag limit proposal for captain and crew. NMFS

[3] http://www.gulfcouncil.org/fishery_management_plans/reef_fish_management.php

recalculated the season length under the revised proposal, and as a result, implemented the regulatory amendment with a recreational fishing season of April 21 through October 31. This recreational fishing season remained in effect through 2007.

In 2008, Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007) revised the rebuilding plan for red snapper. For the recreational sector, the rule implemented a June 1 through September 30 fishing season in conjunction with a 2.45 million pound (mp) recreational quota, 16-inch TL minimum size limit, 2-fish bag limit, and zero bag limit for captain and crew of for-hire vessels. The implementing regulations for this amendment created the June 1 through September 30 season by establishing fixed closed seasons of January 1 through May 31, and October 1 through December 31.

The amendment also addressed differences in shrimp and red snapper fishing effort between the western and eastern Gulf, and the impacts of fishing on the red snapper rebuilding plan. The Council considered options for modifying recreational red snapper fishing effort, including different season opening dates and weekend only or consecutive seasons, for the following regions: Texas and the rest of the Gulf; east and west of the Mississippi River; and maintaining consistent Gulf-wide regulations. The Council ultimately opted to maintain consistent Gulf-wide regulations, with a recreational season from June 1 through September 15. Early versions of the amendment proposed establishing regulations for commercial red snapper fishing for the eastern and western Gulf. The action was considered but rejected because establishing different regulations would compromise the objectives of the IFQ program and reduce the flexibility and efficiency of IFQ program participants.

The Southeast Data Assessment and Review (SEDAR) 7 red snapper assessment provided an option to set two regional total allowable catches with the Mississippi River as the dividing line (SEDAR 7 2005; SEDAR 7 Update 2009). These assessments assume there are two sub-units of the red snapper stock within this region, separated commercially by the Mississippi River (shrimp statistical grids 12 and 13) and recreationally at the Mississippi/Louisiana state line. The most information collected and developed thus far is based on the assessment process and follows this particular split, which is included as an alternative for regional management.

The Sustainable Fisheries Act required the NMFS Regional Administrator to close the recreational red snapper season when the quota is projected to be met. When Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007) was submitted to NMFS, the Council requested that the five Gulf States adopt compatible regulations in state waters. Florida adopted a compatible 2-fish bag limit, but maintained its state red snapper fishing season of April 15 through October 31, 78 days longer than the federal fishing season. Texas also maintained its 4-fish bag limit and year-round fishing season in its state waters. Prior to the start of the 2008 season, NMFS recalculated its projections for the recreational red snapper season in light of the state regulations, and projected that there would be a 75% probability that the recreational quota would not be exceeded if the season closed on August 5. As a result, NMFS set the 2008 season to be June 1 through August 4. In 2009, NMFS again recalculated its projections for the season length prior to the start of the recreational season and announced that the recreational season would be June 1 to August 15.

A February 2010 regulatory amendment (GMFMC 2010) increased the total allowable catch from 5.0 mp to 6.945 mp, which increased the recreational quota from 2.45 mp to 3.403 mp. However, NMFS estimated that in 2009, the recreational sector overharvested its quota by approximately 75%. In recalculating the number of days needed to fill the recreational quota, even with the quota increase, NMFS projected that the 2010 season would need to be shortened to June 1 through July 24, and published notice of those dates prior to the start of the recreational fishing season.

In April 2010, the Deepwater Horizon MC252 deep-sea drilling rig exploded and sank off the coast of Louisiana. Because of the resulting oil spill, approximately one-third of the Gulf was closed to fishing for much of the summer months. The direct loss of fishing opportunities due to the closure, plus the reduction in tourism throughout the coastal Gulf, resulted in a much lower catch than had been projected. After the recreational season closed on July 24, NMFS estimated that 2.3 mp of the 3.4 mp recreational quota remained unharvested (NMFS 2010). However, due to the fixed October 1 through December 31 closed season, NMFS could not reopen the recreational season without an emergency rule to suspend the closure. Consequently, the Council requested an emergency rule to provide the NMFS Regional Administrator with the authority to reopen the recreational red snapper season. After considering various reopening scenarios, the Council requested that the season be reopened for eight consecutive weekends (Friday, Saturday and Sunday) from October 1 through November 21 (24 fishing days).

A January 2011 regulatory amendment (GMFMC 2011a) increased the red snapper total allowable catch to 7.185 mp, with a 3.521 mp recreational quota and a 3.664 mp commercial quota. The final rule also established a 48-day recreational red snapper season, running June 1 through July 19. On August 12, 2011, NMFS published an emergency rule that, in part, increased the recreational red snapper quota by 345,000 lbs for the 2011 fishing year and provided the agency with the authority to reopen the recreational red snapper season later in the year, if the recreational quota had not been filled by the July 19 closing date. However, based on available recreational landings data through June, NMFS calculated that 80% of the recreational quota had been caught. With the addition of July landings data plus Texas Parks and Wildlife Department survey data, NMFS estimated that 4.4 to 4.8 mp were caught, well above the 3.865 mp quota. Thus, no unused quota was available to reopen the recreational fishing season.

A March 2012 regulatory amendment (GMFMC 2012d) increased the commercial and recreational quotas and removed the fixed recreational season closure date of October 1. The recreational season opened June 1 through July 11. However, the north-central Gulf experienced extended severe weather during the first 26 days of the 2012 recreational red snapper fishing season, including Tropical Storm Debby. Because of the severe weather, NMFS extended the season by six days and closed on July 17.

A March 2013 framework action (GMFMC 2013a) increased the commercial and recreational red snapper quotas from a combined 8.08 mp to 8.46 mp. This was the result of new rebuilding projections based on the 2009 update assessment (SEDAR 7 Update 2009) that were revised to account for actual landings during 2009-2012. The resulting sector allocations were 4.315 mp (commercial) and 4.145 mp (recreational). NMFS published the final rule increasing the quota based on state-specific recreational red snapper seasons, which NMFS had implemented through

a March 2013 emergency rule, as requested by the Council. The emergency rule reduced the recreational red snapper season in federal waters off a Gulf State that implements less restrictive regulations for their state water seasons. This reduction of the federal season was to compensate for the additional harvest that would occur in state waters as a result of the inconsistent regulations. On May 31, 2013, the U.S. District Court in Brownsville, Texas voided the emergency rule, and the Gulf-wide federal recreational red snapper season was established from June 1 through June 28.

In July 2013, the Council reviewed a new benchmark assessment (SEDAR 31 2013) which showed that the red snapper stock was rebuilding faster than projected, partly due to strong recruitment in some recent years. Combined with a new method for calculating the ABC, the Council's Scientific and Statistical Committee increased the ABC for 2013 to 13.5 mp, but warned that the catch levels would have to be reduced in future years if recruitment returned to average levels.

After incorporating a buffer to reduce the possibility of having to later reduce the quota, the Council further increased the 2013 commercial and recreational quotas to a combined 11.0 mp (5.61 mp and 5.39 mp, respectively) (GMFMC 2013b). This increase occurred too late to extend the June recreational season, so the Council requested that NMFS reopen the recreational season. NMFS announced a supplemental season of October 1 through 14, 2013.

In 2014, NMFS initially announced a 40-day recreational season. However, in March 2014, as a result of a legal challenge, the U.S. District Court found that there was not an adequate system of AMs in place to prevent the recreational red snapper sector from exceeding its quota. To comply with the court decision, the Council approved the setting of a 20% buffer for the recreational sector catch. The Council also adopted a quota overage adjustment, such that if the recreational sector ACL is exceeded, the ACL will be reduced in the following year by the full amount of the overage. Following adoption of the new AMs, several States extended their season for recreational red snapper in state waters. The projected increase in state water caught red snapper reduced the amount of quota available to be caught in federal waters. As a result, the 2014 red snapper season in federal waters was shortened to 9 days.

Amendment 40 (GMFMC 2014) formally adopted the designation of ACLs for red snapper, established private angling and federal for-hire component ACTs for the years 2015-2017, and established separate in-season closure provisions for each component.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1 – Regional Management

Alternative 1: No Action – Retain current federal regulations for management of recreational red snapper in federal waters of the Gulf of Mexico (Gulf).

Alternative 2: Establish a regional management program that **delegates** some management authority to a state or group of states (regions). Each region must establish the red snapper season structure and bag limit for the harvest of an assigned portion of the recreational sector annual catch limit (ACL). If a region elects to not participate or is determined to have a red snapper harvest plan that is inconsistent with the requirements of delegation, the recreational harvest of red snapper in the federal waters adjacent to such region would be subject to the federal default regulations for red snapper.

Preferred Alternative 3: Establish a regional management program in which a state or group of adjacent states (regions) submit proposals to **NMFS** describing the **conservation equivalency measures** the region will adopt for the management of its portion of the recreational sector ACL. The proposals must specify the red snapper season and bag limit. To be a conservation equivalency plan (CEP), the plan must be reasonably expected to limit the red snapper harvest to the region's assigned portion of the recreational sector ACL. If a region does not participate or its plan is determined by NMFS to not satisfy the conservation equivalency requirements, then the recreational harvest of red snapper in the federal waters adjacent to such region would be subject to the federal default regulations for red snapper.

Alternative 4: Establish a regional management program in which a state or group of adjacent states (regions) submit proposals to a **technical review committee** describing the **conservation equivalency measures** the region will adopt for the management of its portion of the recreational sector ACL. The proposals must specify the red snapper season and bag limit. To be a CEP, the plan must be reasonably expected to limit the red snapper harvest to the region's assigned portion of the recreational red snapper ACL. The technical review committee reviews and may make recommendations on the plan, which is either returned to the region for revision or forwarded to NMFS for final review. If a region does not participate or its plan is determined by NMFS to not satisfy the conservation equivalency requirements, then the recreational harvest of red snapper in the federal waters adjacent to such region would be subject to the federal default regulations for red snapper.

Alternative 5: Establish a provision to sunset regional management after:

Option a: 10 calendar years of the program.
Option b: 5 calendar years of the program.
Option c: 3 calendar years of the program.
Option d: 2 calendar years of the program.

Discussion:

Federal default regulations refer to the Gulf-wide regulations governing the recreational harvest of red snapper in the Code of Federal Regulations (50 CFR Part 622). To implement regional management by delegation or conservation equivalency plans (CEP), the current regulations in the Code of Federal Regulations (50 CFR Part 622) would need to be suspended while consistent delegation or an approved CEP is in effect. Federal default regulations for the recreational harvest of red snapper would be applied to the federal waters adjacent to state waters of that region, in the event a region's delegation is inactive, its CEP is not approved, or if a region does not participate in regional management.

If the federal default regulations are implemented for a region, the National Marine Fisheries Service (NMFS) would publish a notice with the Office of the Federal Register announcing such an action. Currently, the federal regulations include a 2-fish bag limit, minimum size limit of 16 inches total length (TL), and a June 1 season opening; the season closes when the recreational annual catch target (ACT) is projected to be met. [4] Modifying the federal minimum size limit is being evaluated in Action 4; if modified, the selected size limit would be part of the federal regulations for fishing season, bag limit, and size limit, which would serve as the default regulations for inactive regional management. These regulations have been established and revised over time through past actions, which considered a variety of alternatives that were analyzed as part of the decision-making process.

Alternative 1 (no action) would retain current management measures for the recreational harvest of red snapper in federal waters of the Gulf of Mexico (Gulf). Currently, these measures include a 2-fish per angler per day bag limit, a 16-inch TL minimum size limit, and a June 1 fishing season start date. **Alternative 2, Preferred Alternative 3,** and **Alternative 4** propose different approaches to regional management for recreational red snapper. Under all alternatives, red snapper would remain under federal management jurisdiction, subject to Gulf-wide closure when the recreational sector annual catch limit (ACL) is met. Essentially, while a State or States would be given some management authority to determine the regulations to be applied in their region, none of these alternatives provide the complete authority to manage red snapper advocated for by some supporters of regional management. Regions would be able to establish the season start and end dates, season structure, and bag limit at the regional level. However, all regions must adopt the federal minimum size limit selected in Action 4. Any management measures implemented for a region must adhere to the goals of the rebuilding plan and be consistent with federal and other applicable laws.

Under **Alternative 2**, regional management is defined as the delegation of limited management authority to a State or adjacent States, which would then establish appropriate management measures to constrain recreational harvest to the assigned portion of the recreational sector ACL. The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) allows for the delegation of management to a State to regulate fishing vessels beyond their state waters, provided its regulations are consistent with the fishery management plan (FMP;

[4] Recreational red snapper management measures are codified as follows in the *Federal Register*: season opening 50 CFR 622.34(b); size limit 50 CFR 622.37(a); and bag limit 50 CFR 622.38(b)(3). The regulations are also provided in Appendix G.

Appendix D). The delegation of management authority to the States (**Alternative 2**) requires a three-quarters majority vote of the voting members of the Gulf of Mexico Fishery Management Council (Council) members.

If **Alternative 2** is selected, it is possible that not all States will participate. Non-participating States or regions would be required to adhere to the federal default regulations, which would be applied to the State or region's adjacent federal waters for the recreational harvest of red snapper. Because participating States or regions would still receive their allocation (Action 6), a non-participating State/region's season length would be determined based on the remaining balance of the recreational ACL after subtracting the regional ACLs for participating States/regions. Thus, a single non-participating State's season length would be projected based on the portion of the recreational sector ACL it would have received if participating in delegation.

Preferred Alternative 3 and **Alternative 4** would adopt a process by which regions submit CEPs describing their intended management measures for the recreational harvest of red snapper. While **Preferred Alternative 3** and **Alternative 4** would grant less management authority directly to the States or regions than **Alternative 2**, all three alternatives provide comparable flexibility to the regions to modify the season structure and bag limit for the harvest of their designated portion of the red snapper recreational ACL.

Preferred Alternative 3 and **Alternative 4** differ based on the review process for the CEPs. Under **Preferred Alternative 3**, regions would submit plans directly to NMFS for review while under **Alternative 4**, regions would first submit CEPs to a technical review committee. The proposed process under **Alternative 4** is more similar to the Mid-Atlantic Fishery Management Council's management of summer flounder than is **Preferred Alternative 3**. The technical review committee would need to be created and populated, such as by members of the Council's Scientific and Statistical Committee. The technical review committee would provide the initial review of CEPs and may make recommendations on the plan, which is either returned to the region for revision or forwarded to NMFS for final review and approval. Because of the additional time needed for the technical review committee to meet and review the CEPs, **Alternative 4** would entail a longer process for consistency determination than under **Preferred Alternative 3**. On the other hand, the process under **Alternative 4** provides for greater participation and input by state-level managers and stakeholders, increasing the involvement of local-level entities in the regional management process.

Alternative 5 provides sunset options for ending regional management after a specified number of years (**Options a-d**) and may be selected with any of **Alternatives 2-4**. At the time of the sunset, all associated actions in this amendment would end. If **Alternative 5** (with a corresponding option) is not selected as preferred, no sunset date will be established. Should **Alternative 5** be selected as preferred and the Council decides subsequently to continue regional management, the Council would need to extend regional management through the appropriate document and process.

Under **Alternative 5**, regional management would end after 10 calendar years (**Options a**), 5 years (**Options b**), 3 years (**Option c**), or 2 years (**Options d**). For all options, regional management would expire at the end of the tenth, fifth, third, or second calendar year of the

program, regardless of the implementation date of this amendment. For example, if this amendment is implemented in May 2016 with **Option c** selected as preferred, regional management would end December 31, 2018. All regulations associated with all actions in this plan amendment would expire at the sunset date, including any accountability measures (AMs; Action 7).

Requirements of Delegation Provision (Alternative 2)

If delegation of red snapper management is adopted (**Alternative 2**), then the management measures delegated to the individual States or groups of States must be consistent with the Reef Fish FMP, including the rebuilding plan and the Magnuson-Stevens Act. Consistency with the FMP requires, among other things, preventing overfishing, rebuilding declining reef fish stocks, monitoring the reef fish fishery, conserving reef fish habitats and increasing fish habitats, and minimizing conflicts between user groups.

The Magnuson-Stevens Act (16 U.S.C. §1856(a)(3)) outlines the procedure in the case of a State's regulations not being consistent with the FMP (Appendix D). If NMFS determines that a State's regulations are not consistent with the FMP, NMFS shall promptly notify the State and the Council of the determination and provide an opportunity for the region to correct any inconsistencies identified in the notification. If, after notice and opportunity for corrective action, the region does not correct the inconsistencies identified by NMFS, then the delegation to the region shall not apply until NMFS and the Council find that the region has corrected the inconsistencies.

In application, the response times between NMFS' determination of inconsistency and the implementation of corrective action by the State would be case specific. The timelines for correction of inconsistencies would be decided by NMFS on a case by case basis, as it determines whether inconsistencies exist. The timeline for the region's response would be dependent on the nature of the inconsistency. Due to the short season lengths and high catch rates for the recreational harvest of red snapper, the implementation of corrective actions may need to occur very quickly. Under such circumstances, the region would need to establish a process to implement corrective actions very quickly.

As a hypothetical example, if the region implemented the delegated management measures shortly before the season opened, any notification of inconsistency and the implementation of corrective action would need to occur quickly. To accomplish this, the region would need to have the authority to close the season and adjust the bag limit perhaps without having an opportunity to discuss the issue at a formal State commission meeting. Alternatively, if the region implemented regulations several months before the opening of the red snapper recreational season, then a longer response time would be possible. This scenario may also allow for the discussion of the issue at a formal State commission meeting. These scenarios exemplify the need for case-by-case timelines for the region's response to a notification of inconsistency.

A region may decide to opt out of delegation and request the federal default measures be applied to adjacent federal waters (Figure 2.1.1) for the recreational harvest of red snapper. To opt out of

delegation, the region should send a letter to NMFS requesting the federal default regulations be applied to their region for the fishing year. A season length would be calculated by NMFS based on the region's ACL as apportioned in Action 6. Inherently, if only one region opts-out, then it would still essentially be constrained by the terms of delegation as per the regional area and quota apportionment.

Under delegation, federal waters could potentially remain open year-round, and anglers' access to harvesting red snapper from federal waters would be constrained by the management measures established for their region. Each region would prohibit further landings after its portion of the quota has been caught. Under certain conditions, the federal waters adjacent to a given region could be closed. To be consistent with national standard 4 of the Magnuson-Stevens Act, these closures would apply to all recreational vessels.

Requirements of Conservation Equivalency (Preferred Alternative 3 and Alternative 4)

Under **Preferred Alternative 3**, each state would have the opportunity to submit a CEP to establish regionalized management measures, including season start and end dates, season structure, and bag limit, for the recreational harvest of red snapper on a yearly basis. These plans would be reviewed by NMFS to insure the proposed management measures are a conservation equivalent to the federal regulations. Table 2.1.1 provides an example timeline for the submittal and approval of the CEPs under **Preferred Alternative 3**. This process would be altered for the first year of the program if this action is implemented mid-year. In addition, revisions of this process may be implemented by NMFS as necessary. In this instance, NMFS would contact the states and notify them of any changes needed to make their plan a conservation equivalent to the federal regulations.

The timeline for the CEP review is specifically designed to allow the State or region an opportunity to use preliminary data from their monitoring plans and Wave 4 of MRIP prior to submitting their plan. In addition, the timeline allows the State or region an opportunity to submit a revised CEP for approval. If the proposed management measures extend beyond the range analyzed in this amendment, then NMFS may recommend preparing an appropriate documentation for the applicable laws to support the decision (ex. NEPA analysis). NMFS would collaborate with the state/region in developing the appropriate documentation with the understanding that the development of the document could delay NMFS' ability to approve the CEP and may need further Council action for implementation.

Under **Alternative 4**, the CEP would be submitted to the technical review committee and a separate timeline may be established by the committee. The finalized plans with the technical review committee recommendation for approval would need to be submitted to NMFS by November 1st to allow time to publish a notice in the federal register by January 1st identifying States with approved CEPs. States without approved CEPs would be subject to the federal default regulations.

Table 2.1.1. Example timeline for the review of CEPs by NMFS for Preferred Alternative 3.

Timeline	Description
July 1st	The State or region provides a brief written description of its preliminary CEP for the following year (e.g., the regulations they hope to implement the following year if supported by the current year landings and effort data) to NMFS. At this time, NMFS may flag any high-level concerns or alternative process requirements (e.g., additional National Environmental Policy Act (NEPA) documentation required if the proposed regulations are outside the scope of analysis in Amendment 39 and documentation for other applicable laws).
September 1st	The State or region submits the CEP to NMFS for review.
October 1st	NMFS responds to the State or region with the preliminary determination whether the plan is a conservation equivalent to the federal default regulations. At this time, NMFS may approve the plan or request a revised CEP.
October 15th	The State or region provides a revised CEP to NMFS for approval, if necessary.
November 1st	NMFS provides final approval for CEPs. If the CEP was not approved or did not submit a CEP, then the State or region would be subject to the federal default regulations.
January 1st (or sooner)	NMFS publishes a notice in the federal register identifying States with approved CEPs. States without approved CEPs would be subject to the federal default regulations.

Each CEP shall include the following:

- Point of Contact for the CEP
- Point of Contact with the authority to close the fishery
- Proposed CEP including season structure and bag limit.
- Specify if the CEP is intended to be applicable for one or two years. Prior to approving the second year of the plan, it would be evaluated based on data from the first year. The plan may require revisions based on the NMFS review.
- Analysis demonstrating the ability of the CEP to constrain recreational harvest of red snapper to the allocated quota with a description of the methodology.
- Summarize the previous year's performance (e.g., Was the harvest constrained at or below the regional quota?).
- Explain how the CEP will be enforced.
- If applicable, provide a description of the in-season monitoring program and plan to close the fishery if the quota is reached.
- If necessary, additional analysis and documentation supporting the proposed CEP which may include NEPA, MSA, or other applicable laws. This would only apply for CEP management strategies beyond the range analyzed in Amendment 39.
- Any other supporting documentation for the CEP, such as scientific research.

Application of Federal Default Regulations

Under **Alternative 2, Preferred Alternative 3,** or **Alternative 4**, the selected suite of management measures to be established for a region could consist of numerous combinations and ranges. Although there is flexibility in the assemblage of management measures to be adopted for a region, each region must establish its season and bag limit. If a region does not establish a season and bag limit, then NMFS will deem the region's regulations inconsistent. If the inconsistency is not resolved and NMFS suspends the region's regional management, the federal default regulations will go into effect for the region's portion of federal waters (Figure 2.1.1), until the region receives approval by NMFS that the inconsistency has been remedied. Each region must also establish a minimum size limit that is consistent with the federal minimum size limit, or NMFS will deem the region's regulations inconsistent.

At any time, a region or regions could opt out and not participate in regional management. Although regional management would be inactive and such a region would fish under the federal default regulations, related actions in this amendment would remain effective. If one or more regions opt out of regional management, the regulations implementing the preferred alternatives selected under Actions 6 (apportioning the recreational ACL) and 7 (post-season AMs) would remain effective and applicable toward those regions until modified through a plan amendment.

If a region chooses to opt out of regional management, then federal default regulations would be necessary. A region may decide not to participate and request the federal default measures be applied to adjacent federal waters for the recreational harvest of red snapper. This would constitute the region opting out. To opt out, the region would send a letter requesting the federal default regulations be applied to their region for the fishing year. NMFS would publish a notice in the *Federal Register* to implement the federal default regulations in the region's adjacent federal waters (Figure 2.1.1). The season length would be calculated by NMFS based on the regional ACLs (or component ACLs) as apportioned in Action 6. Inherently, if only one region opts out, then they would still essentially be constrained by the terms of regional management as per the regional area and recreational ACL apportionment. If more than one region opts out, the respective regional ACLs could be combined, and NMFS would calculate the season for those areas of federal waters no longer managed by the regions. It would be expected that these regions would adopt regulations consistent with the federal default regulations that would apply to all recreational vessels in federal waters off such region. In turn, if a region does not set the season and bag limit, or sets a different minimum size limit than that selected in Action 4, then it is assumed that the region is opting out of regional management and the federal default management measures would apply. As per the Magnuson-Stevens Act, it would still be necessary for NMFS to prohibit the recreational harvest of red snapper if or when the Gulf-wide recreational sector ACL is reached or estimated to have been met.

Boundary Description for Figure 2.1.1.

The boundaries in Figure 2.1.1 were agreed upon by the representatives from each state marine resource agency at the February 2013 Council meeting. All lines begin at the boundary between state waters and federal waters. Line A-B, defining federal waters off Texas, is already codified as a line from 29°32.1' N latitude, 93°47.7' W longitude to 26°11.4' N latitude, 92°53.0' W

longitude, which is an extension of the boundary between Louisiana and Texas (50 CFR 622.2). Likewise, line G-H, defining federal waters off Florida, is codified as a line at 87°31.1' W longitude extending directly south from the Alabama/Florida boundary (50 CFR 622.2). The other two lines have not been codified, but were negotiated between the adjacent states prior to the February 2013 meeting. Line E-F is a line at 88°23.1' W longitude extending directly south from the boundary between Alabama and Mississippi.

Line C-D is a line at 89°10.0' W longitude extending directly south from the South Pass Light in the Mississippi River delta in Louisiana. Unlike the other lines, this line is not based on the boundary between Louisiana and Mississippi because doing so would be impracticable. Louisiana has jurisdiction over the Chandeleur Islands, which extend into waters south of Mississippi. A line based on the state waters boundary just north of the islands could result in inequitable impacts on Mississippi anglers as it would identify federal waters that are off both Mississippi and Louisiana as being exclusively off Louisiana. A line based on the state land boundary would be even further west and would reduce the extent of federal waters off Louisiana. Therefore, this line was considered a fair compromise by representatives of both states.

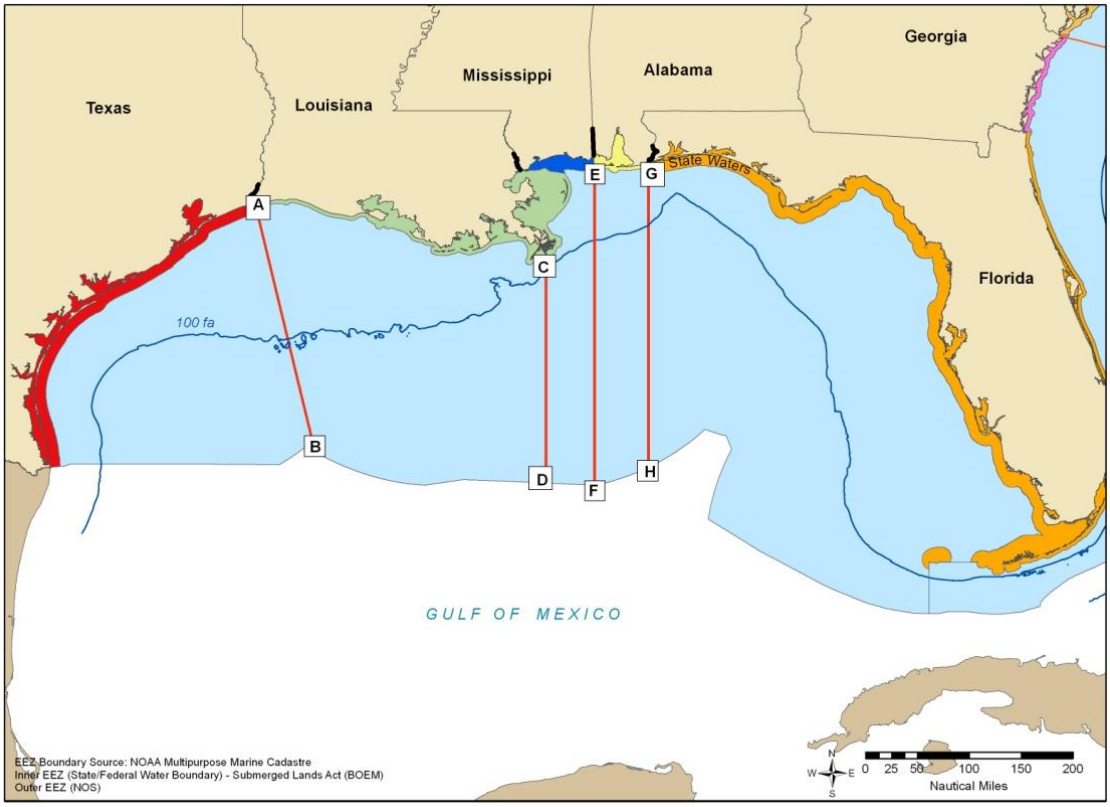

Figure 2.1.1. Map of state waters (shaded in color for each State) with established and proposed boundaries between states extending into federal waters. These boundaries were agreed upon at the February 2013 Council meeting. Federal waters adjacent to a State or region refer to the portion of federal waters bounded by the State or region's state waters and the boundary line(s) shown in the figure that separate federal waters off of each State.

2.2 Action 2 – Regional Management and Sector Separation

Alternative 1: No Action – Retain current federal management of recreational red snapper in federal waters of the Gulf. For the years 2015-2017, establish separate component ACTs for the federal for-hire and private angling components as specified in Amendment 40.

Alternative 2: Remove the sunset and **extend** the separate management of the federal for-hire and private angling components of the recreational sector and have this amendment **apply to the private angling component**, only. The private angling component would be managed by each region under regional ACLs that are based on the allocation selected in Action 6 and the federal for-hire component would be managed Gulf-wide under a component ACL based on the allocation selected in Amendment 40.

Alternative 3: Remove the sunset and **extend** the separate management of the federal for-hire and private angling components of the recreational sector and have this amendment **apply to both components** in any region intending to manage both private angling and federal for-hire components for its region. A region would specify its intent to manage both components in its CEP or state regulations under delegation. In a region that manages both components, the regional ACL will be separated into private angling and federal for-hire component ACLs, based on the component allocation selected in Amendment 40 and the regional allocation selected in Action 4. In all other regions, the private angling component would be managed by each region under the regional ACLs based on the allocation selected in Action 6, and the federal for-hire component would continue to be managed Gulf-wide under a component ACL based on the allocation selected in Amendment 40.

Alternative 4: Remove the sunset and **end** the separate management of the federal for-hire and private angling components upon implementation of this amendment, and have this amendment **apply to the entire recreational sector**. The private angling and federal for-hire components would be managed as a single unit by each region under regional ACLs based on the allocation selected in Action 6.

Note: Regional and component ACLs will be reduced by the established buffer, resulting in respective regional and component ACTs.

Discussion:

In October 2014, the Council took final action on Amendment 40 (GMFMC 2014) to apportion the recreational ACL between the federal for-hire and private angling components of the recreational sector for a period of three years. This Action 2 is only applicable in the event this amendment is implemented while the separate components of the recreational sector are still in effect. **Alternative 1** (no action) would continue the separate management of the federal for-hire and private angling components until the end of 2017, as specified in Amendment 40 (GMFMC 2014). It is possible that this alternative would allow for the component ACTs to remain in place when regional management is implemented, only to be vacated at the specified time (the end of 2017). This may complicate the establishment of regional management measures. Table 2.2.1

provides a comparison of how the regions would manage the federal for-hire component and private angling component under **Alternatives 1-4**.

Alternative 2 would remove the sunset provision specified in Amendment 40 upon implementation of this amendment and continue the separate management of the federal for-hire and private angling components. Under this alternative, regional management would apply only to the private angling component (Figure 2.2.1). Management of the federal for-hire component is currently being evaluated by the Council through Amendments 41 (charter vessels) and 42 (headboats).

Table 2.2.1. Comparison of Alternatives 1-4 for reconciling regional management with sector separation.

Under…	Regional Management…	Sector Separation…
Alternative 1	… retains separate quotas (2015-2017) for the private angling and federal for-hire components.	… ends at time of sunset (end of 2017).
Alternative 2	… applies to the private angling component, only.	… is extended and the sunset is removed. Management of the federal for-hire component is being evaluated in Amendments 41 and 42.
Alternative 3	… applies to both private angling and federal for-hire components in regions intending to manage the components separately. Regional management applies to the private angling component only in regions that do not intend to continue separate management of the components.	… is extended and the sunset removed. In regions intending to separately manage the components, a for-hire and private angling ACL would be created for that region. In the remaining regions, the federal for-hire component and associated quota would be managed under a Gulf-wide federal for-hire component ACL.
Alternative 4	… applies to the entire recreational sector, managed under a single recreational sector ACL which would be divided into regional ACLs.	… ends when regional management is implemented.

Like **Alternative 2**, **Alternative 3** would remove the sunset provision specified in Amendment 40 upon implementation of this amendment and the for-hire and private angling components would continue to be managed separately. **Alternative 3** differs from **Alternative 2**, by allowing each region to decide whether or not to manage the for-hire component in that region. If a region intends to manage both components, the region would specify the management measures to be applied to each component in its CEP or state regulations established for delegated management authority. For a region choosing to manage both components, the region's ACL would be apportioned into two component ACLs for that region, applying the allocation formula in Amendment 40 to that State/region's landings of red snapper by each component. This could result in the recreational sector ACL being divided into as many as ten ACLs (and corresponding ACTs) to represent each State and each component. For a region

intending to manage the private angling component, only, the regional ACL would not be further divided and the for-hire component (with the associated portion of the ACL) would continue to be managed by a shared set of measures established for the federal for-hire component (Figure 2.2.2).

Alternative 4 would end the use of separate component ACLs (quotas) concurrent with implementation of this amendment, even if the three-year period of sector separation has not expired. Adopting **Alternative 4** would apply regional management and the actions herein to each region's recreational sector as a whole (Figure 2.2.1). Under Alternative 4, only regional ACLs (and corresponding ACTs) would be used; there would not be component ACLs.

Assuming that five regions representing each Gulf State will be established under this amendment, the recreational sector ACL would be divided into a different number of component ACLs, regional ACLs, or regional component ACLs depending on the alternative selected (Figure 2.2.1). Currently (**Alternative 1**), the recreational sector ACL is divided into two component ACTs for the years 2015-2017 and will revert to a single recreational sector ACL at the start of 2018. Six ACLs would be established under **Alternative 2**, consisting of five regional private angling component ACLs and one federal for-hire component ACL. By allowing each region to determine whether or not to manage both the federal for-hire and private angling components under **Alternative 3**, up to 10 ACLs may need to be established, including regional component ACLs for those regions intending to manage both components. If some regions managed both components while others did not, the federal for-hire component ACL would be reduced by the amount of quota allocated to the respective regional for-hire component ACLs. Under **Alternative 4**, component ACLs would no longer be used. Instead, up to five regional ACLs would be established, representing each region or State.

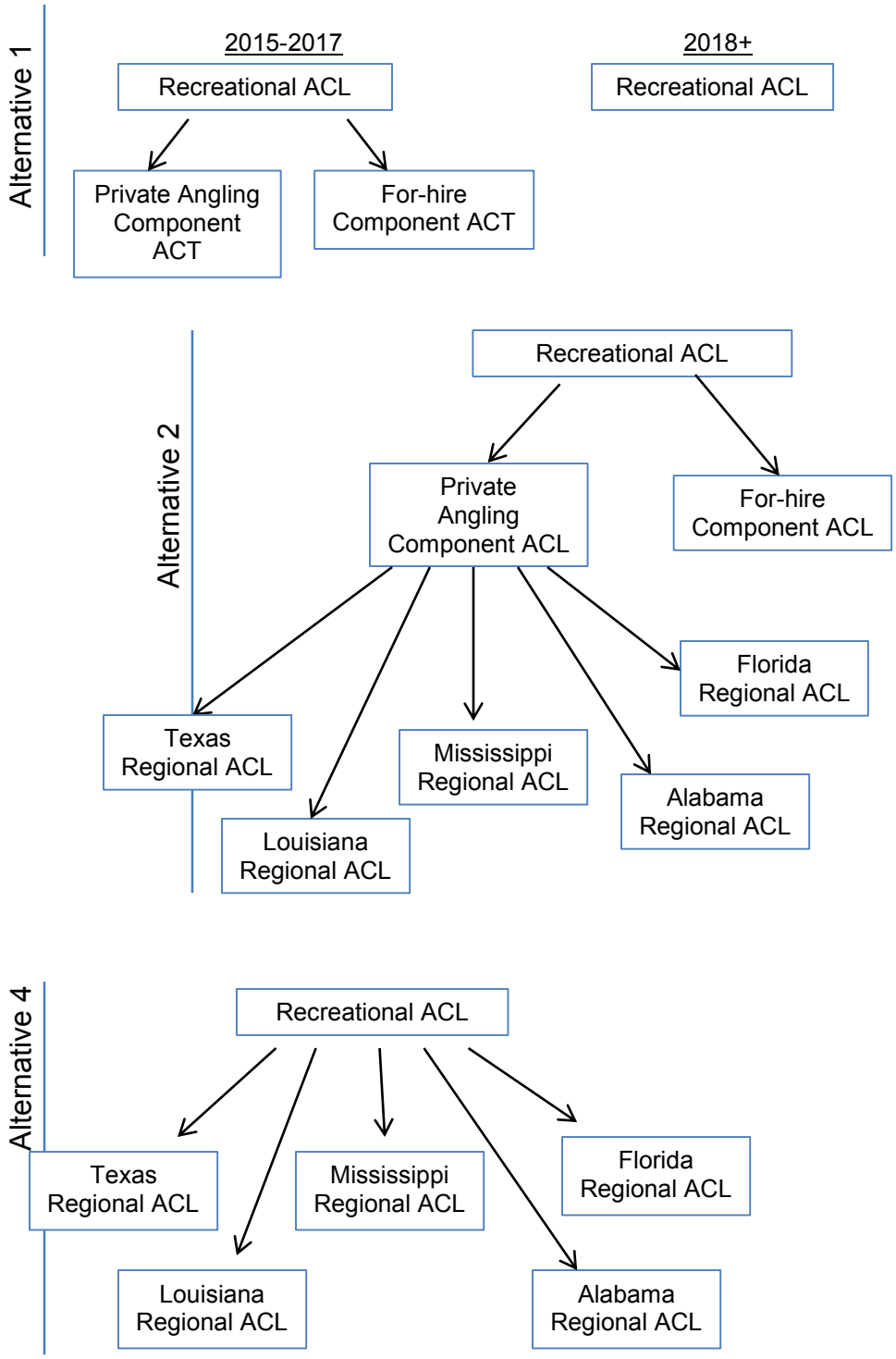

Figure 2.2.1. Diagram showing the ACLs which would be established under Alternatives 1, 2, and 4.

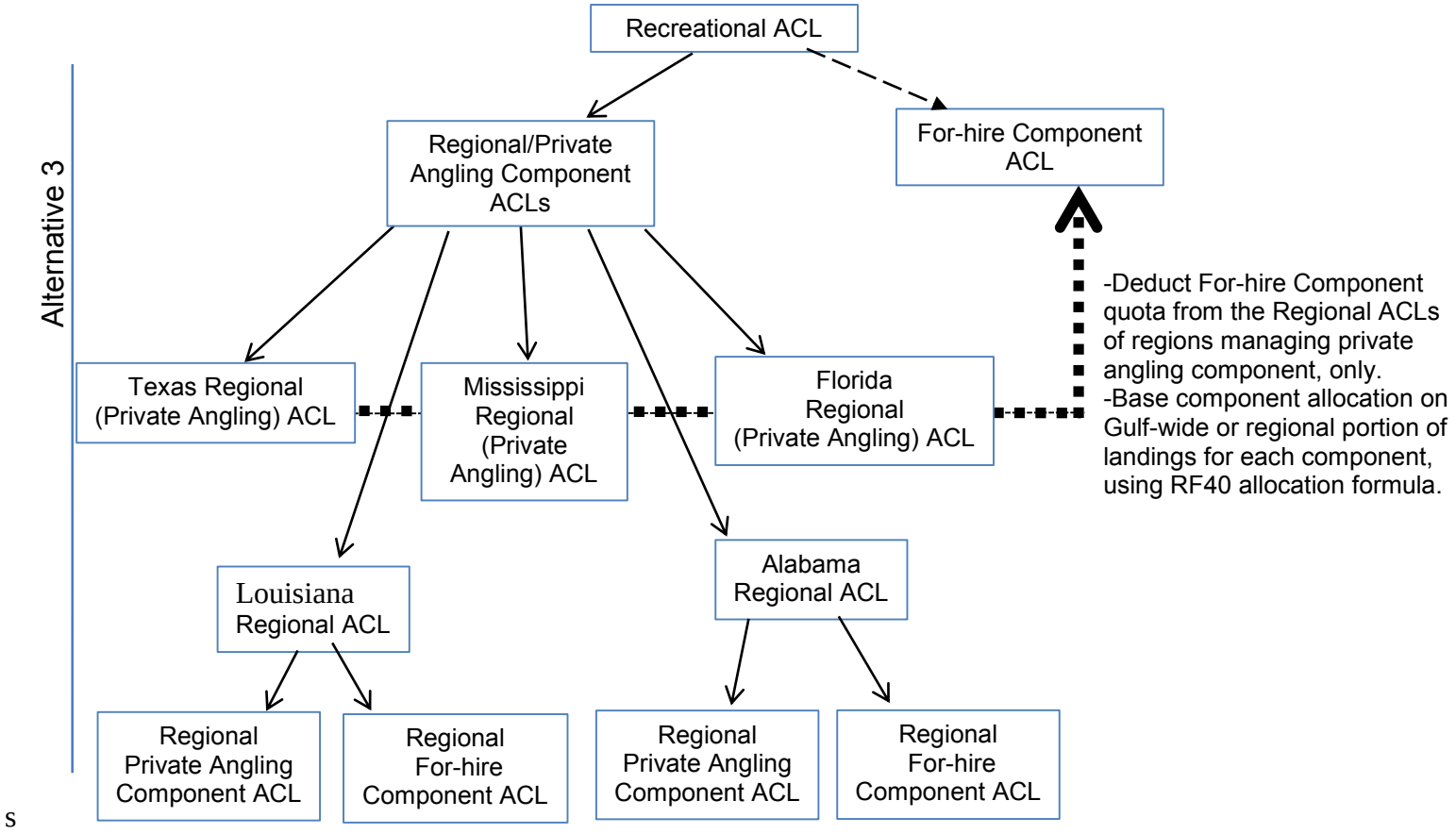

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Figure 2.2.2. Diagram showing how ACLs could be established under Alternative 3.

2.3 Action 3 – Establish Regions for Management

Alternative 1: No Action – Retain the current management of recreational red snapper in federal waters of the Gulf as one region.

Alternative 2: Establish an east (Florida, Alabama, Mississippi) and west (Louisiana, Texas) region and allow for different management measures for each region.

Alternative 3: Establish an east (Florida, Alabama) and west (Mississippi, Louisiana, Texas) region and allow for different management measures for each region.

Alternative 4: Establish five regions representing each Gulf State.

Preferred Alternative 5: Establish five regions representing each Gulf State, which may voluntarily form multistate regions with adjacent states.

Discussion:

Under **Alternative 1** (no action), management measures would remain the same for the recreational harvest of red snapper in all federal waters of the Gulf. Currently those regulations include a June 1 fishing season start date, a 16-inch TL minimum size limit, and a 2-fish per angler per day bag limit. Additionally, captain and crew are prohibited from retaining a bag limit while under charter. These regulations apply Gulf-wide in federal waters. The remaining alternatives propose to divide the Gulf into regions, using the boundaries specified in Figure 2.1.1. The establishment of regions would allow for management measures to be established at the regional level.

Alternatives 2 and **3** would establish two regions: eastern and western Gulf. In both alternatives, Florida and Alabama make up the eastern region, and Louisiana and Texas make up the western region. The alternatives differ in that Mississippi is part of the eastern region under **Alternative 2** and part of the western region under **Alternative 3**. Because **Alternatives 2** and **3** include more than one state in a region, the states sharing a region would need to agree on the set of shared management measures and to close the region's red snapper season when the regional ACT (reduced from the regional ACL) is reached or projected to be reached.

The red snapper stock assessment assumes there are two sub-units of the Gulf red snapper stock, separated roughly at the Mississippi River. **Alternative 2** would divide the Gulf into regions that most closely approximate the eastern and western sub-units used in the red snapper stock assessment, thereby affording the possibility to adopt regional management measures based on the differences in biological abundance. The Red Snapper Benchmark Assessment (SEDAR 31 2013) estimated that the western Gulf sub-unit would carry a disproportionate burden of stock recovery. This is true for two reasons: first, because it is currently estimated to have higher stock biomass; and second, because the average fishing mortality rate at age is estimated to be lower in the western Gulf compared to the eastern Gulf (SEDAR 31 2013). Results from all plankton surveys (1986-2003) found red snapper larvae were more abundant and occurred in five

times more samples in the western Gulf compared to the eastern Gulf (Hanisko et al. 2007). A larval transport study in the northern Gulf examined the potential for repopulating the eastern Gulf stock through larval transport from the more populous western sub-unit (Johnson et al. 2009). The results of this study indicated while there is a larval transport pathway around the Mississippi River delta, the primary pathway is in deeper waters beyond the shelf break suggesting uncertainty about successful settlement of red snapper larvae in waters this deep (Johnson et al. 2009). Further the likelihood of larval transport to the west Florida shelf was much lower due to topographic impediments including the Mississippi Delta, DeSoto Canyon and the Apalachicola peninsula (Johnson et al. 2009). Therefore, the eastern and western sub-units of the red snapper stock are projected to rebuild at different rates based on current estimates of population abundance. However, the ultimate result of increasing fishing pressure on the eastern sub-unit compared to the western sub-unit is that the eastern sub-unit is projected to continue to be prosecuted on mostly small, young fish, which is projected to result in a truncated population age distribution.

A problem with using the eastern and western sub-units of the stock assessment is that the dividing line (the Mississippi River) used in the assessment does not fall precisely along a state boundary; the dividing line runs through Louisiana, which straddles both the eastern and western sub-units of the stock. Thus, there would be a difference in using the proportion of the red snapper stock suggested by the stock assessment that could be taken from each sub-unit, and the proportion of aggregated states' landings coinciding with the selection of **Alternative 2**, which most closely approximates the boundary used in the stock assessment. This difference would be even greater if **Alternative 3** is selected as preferred, as the western region's boundary would also include Mississippi. Although the regional boundary under **Alternative 3** is further to the east than **Alternative 2** (and thus deviates further from the sub-units of the stock assessment), including Mississippi in the same region as Louisiana rectifies the issue that the eastern portion of Louisiana's state water boundary essentially obstructs Mississippi's access to federal waters from its state waters (Figure 2.1.1).

Alternative 4 would establish each Gulf State as its own region. This alternative would provide the most flexibility to individual states to determine their choice of management measures. Should a region fail to implement regional regulations consistent with the FMP, that region would harvest red snapper under the federal default management measures. **Preferred Alternative 5** is most similar to **Alternative 4**, but would allow one or more regions to choose to form multistate regions with adjacent states. While this additional measure of flexibility could allow regions to pool their portions of the recreational quota, it would also require cooperation among states included in the region. For example, the region would need to agree on establishing a common set of management measures and close their entire region's waters once its portion of the recreational quota is reached. If one or more states are combined into a region (**Alternatives 2, 3,** and **Preferred Alternative 5**), then the outermost state boundaries would be used to define the geographic region (Figure 2.1.1). The Council could choose to establish new jurisdictional lines to define regions.

Generally, establishing more regions (such as under **Alternative 4** or **Preferred Alternative 5**) will mean a more subdivided ACL and entail more complicated management. For example, under current management, state and federal waters Gulf-wide are open during the red snapper

season. By allowing regions to set their own fishing seasons, some regions of the Gulf could be open while others are closed. Bag limits may also vary among regions. Therefore, enforcement will primarily be conducted dockside. At-sea enforcement could be most complicated near the boundaries between regions with different management measures, as it could be difficult for enforcement agents to determine which region's jurisdiction applies to a recreational vessel. In these cases, enforcement agents would consider the most liberal of the regions' management measures in place at the time, to serve as guidelines for determining regulatory compliance. For example, if no region has a bag limit greater than four red snapper per person per day, then a vessel possessing red snapper in excess of this bag limit, regardless of where in federal waters it is fishing, could be in violation if stopped by enforcement agents.

There are also issues with using the Marine Recreational Information Program (MRIP) catch estimates for states where species are infrequently sampled. This may occur if a given species is rarely captured or if there are relatively few sample locations in a state. These situations increase proportional variability, resulting in additional scientific or management uncertainty that could affect the use of these data. These problems can be mitigated by increasing: 1) the intensity of sampling, 2) spatial extent of the sample frame (e.g., Gulf-wide variability is less than estimates for individual states), or 3) lengthening the time-period used to develop catch estimates (i.e., wave-length). In practice, each of these measures has impediments. For example, funding may be inadequate to support additional monitoring and temporal or spatial resolution may not match management needs. This should be considered when developing management frameworks.

In addition, Texas Parks and Wildlife Department (TPWD) uses its own survey for estimating catches, using a different methodology than MRIP. If regional management is established at the State level, this could create a question of whether the catch estimates for Texas are comparable to those of the other states. In 2013, the Louisiana Department of Wildlife and Fisheries (LDWF) began to use its own survey, the Louisiana Recreational Creel Survey (LA Creel), which ran alongside MRIP that year. In 2014, Louisiana withdrew from MRIP and landings estimates are only available from LA Creel; there are no 2014 MRIP landings estimates for Louisiana. Currently in 2015, LA Creel is running alongside MRIP in Louisiana in an attempt to validate and certify LA Creel.

2.4 Action 4 – Modify the Federal Minimum Size Limit

Alternative 1: No Action – Retain current federal regulations for the minimum size limit for recreational red snapper in federal waters of the Gulf. The federal minimum size limit is 16 inches TL.

Alternative 2: Reduce the federal minimum size limit to 14 inches TL.

Preferred Alternative 3: Reduce the federal minimum size limit to 15 inches TL.

Alternative 4: Increase the federal minimum size limit to 17 inches TL.

Alternative 5: Increase the federal minimum size limit to 18 inches TL.

Discussion:

The current minimum size limit for red snapper is 16 inches TL in the Gulf for recreational anglers (**Alternative 1**) and for all Gulf States except Texas. In state waters off Texas the recreational red snapper minimum size limit is 15 inches TL (**Preferred Alternative 3**). During early deliberations on regional management, the Council expressed their intent to establish limitations on the minimum size limits which may be adopted by the regions due to biological concerns associated with high-grading and discard mortality. Additionally, the Council felt varying the minimum size limit among regions may pose issues in terms of the stock assessment. Red snapper stock is still under a rebuilding plan and stock assessments must take into account minimum size limits for each sector and gear type. Ultimately, the Council decided that the regions would adhere to the federal minimum size limit and not adopt different regional size limits. The state or region will be able to establish bag and season management measures in Action 1; however, this action evaluates modifying the federal minimum size limit. For regional management to be effective in a region, that region must adhere to the federal minimum size limit. If regional management is inactive in a state or region, the federal minimum size limit would still apply to federal waters of the Gulf adjacent to the region and would remain as part of the federal default regulations.

All of the minimum size limit alternatives considered in the action are estimated to be reproductively mature fish. All (100%) red snapper are estimated to be reproductively mature at age-2 (SEDAR 31 2013) at approximately 358 mm or 14 inches TL using the age-length equation in Szedlmayer and Shipp (1994). Due to age truncation in the red snapper stock smaller, younger fish are caught more quickly due to their disproportionately larger abundance when compared with older, larger fish. The smallest minimum size considered in this action is 14 inches TL (**Alternative 2**). Spawning potential ratio (SPR) is the spawning potential of the stock relative to the stock with no fishing mortality. Yield-per-recruit (YPR) addresses the fishing mortality rate that produces the maximum yield of the fishery. The YPR for red snapper is maximized at 15 inches TL (**Preferred Alternative 3**), based on the YPR and SPR analyses conducted by the Southeast Fisheries Science Center (SEFSC) in 2013 for the recreational sector, which used a discard mortality estimate of 10%. The largest minimum size limit considered in this action is 18 inches TL (**Alternative 5**) that resulted in the largest spawning potential for the

stock. Based on the YPR and SPR analysis conducted by the Southeast Fisheries Science Center (SEFSC) in 2013 for the recreational sector, which used discard mortality estimate of 10%, found YPR is maximized at 15 inches TL (**Preferred Alternative 3**). However, due to the status of the red snapper stock and selectivity patterns, minimum size limits from 13-18 inches TL are considered effective for managing red snapper because the YPR varies little between that size range. It should be noted that SPR increases for red snapper as the minimum size limit increases.[5] If the management goal is to achieve a higher SPR, then increasing the minimum size to 17 inches TL (**Alternative 4**) or 18 inches TL (**Alternative 5**) would be beneficial. For example, it has been well documented that larger, older females produce more eggs and spawn more frequently throughout the season than younger, smaller red snapper (Collins et al. 2001; Porch et al. 2013: SEDAR 31-AW03). However, larger red snapper are targeted by recreational anglers, making release mortality a more important consideration than it might be for other snapper species. Thus, the SPR and YPR analyses reveal a trade-off between the two metrics. If the management goal is to maximize YPR, then **Preferred Alternative 3** would be most appropriate; whereas, if the management goal is to maximize SPR, then **Alternative 5** would most appropriate.

Discard mortality also plays an important role in considering minimum size limits in the Gulf. Recreational discard mortality of red snapper was estimated by eastern and western sub-region in SEDAR 7 (2005) and SEDAR 31 (2013). The assessments found a consistent, Gulf-wide trend among discard mortality data, where depth of capture and release mortality were positively correlated. The release mortality for recreationally caught red snapper was averaged by eastern and western Gulf and estimated at 21% (Table 6.5 in SEDAR 7 2005). The most recent stock assessment estimated discard mortality for the recreational sector at 10% for the eastern and western Gulf (SEDAR 31 2013), when circle hooks and venting tools were used. However, the data workshop report noted that release mortality was related less to region and more on a combination of factors including, but not limited to, depth, thermal stress, venting versus non-venting, and handling time.

Based on length-weight relationship of red snapper used during SEDAR 31 (2013), a 16-inch TL red snapper (**Alternative 1**) is estimated to weigh 1.8 lbs ww and an 18 inch TL (**Alternative 5**) red snapper is estimated to weigh 2.6 lbs ww (Figure 2.4.1). The average size of recreational red snapper landed in 2012 was 8 lbs ww and approximately 24 inches TL (SERO 2012b). The differences in the minimum size limits (**Alternatives 2-5**) and corresponding estimated landed weights range from 1.2 lbs ww at 14 inches TL and 2.6 lbs ww at 18 inches TL are expected to result in minimal differences in the rate at which fish are landed, as most recreational anglers are targeting larger "trophy" fish (Figure 2.4.1). Generally, lower minimum size limits result in the rapid harvest of higher numbers of smaller fish, thereby filling the quota more quickly. Higher minimum size limits typically result in the decelerated harvest of larger fish, thereby filling the quota more slowly and concurrently increasing the season length. Recently, the average landed weight of recreational red snapper has been estimated separately for the eastern and western Gulf due to differences in the data collection programs and by separate modes (i.e., headboats, charter vessels, and private anglers). In 2014, the average weight of landed red snapper in the eastern Gulf for private, charter vessel, and headboats were 7.5, 8.5, and 4.9 lb ww, respectively. The

[5] http://gulfcouncil.org/docs/Presentations/Gulf%20Red%20Snapper%20Size%20Limit%20Analysis%20-%20Presentation.pdf

average weight of landed red snapper in the western Gulf for private, charter vessels, and headboats were 6.98, 10.0, and 5.4 lbs ww, respectively (SERO-LAPP-2015-04).

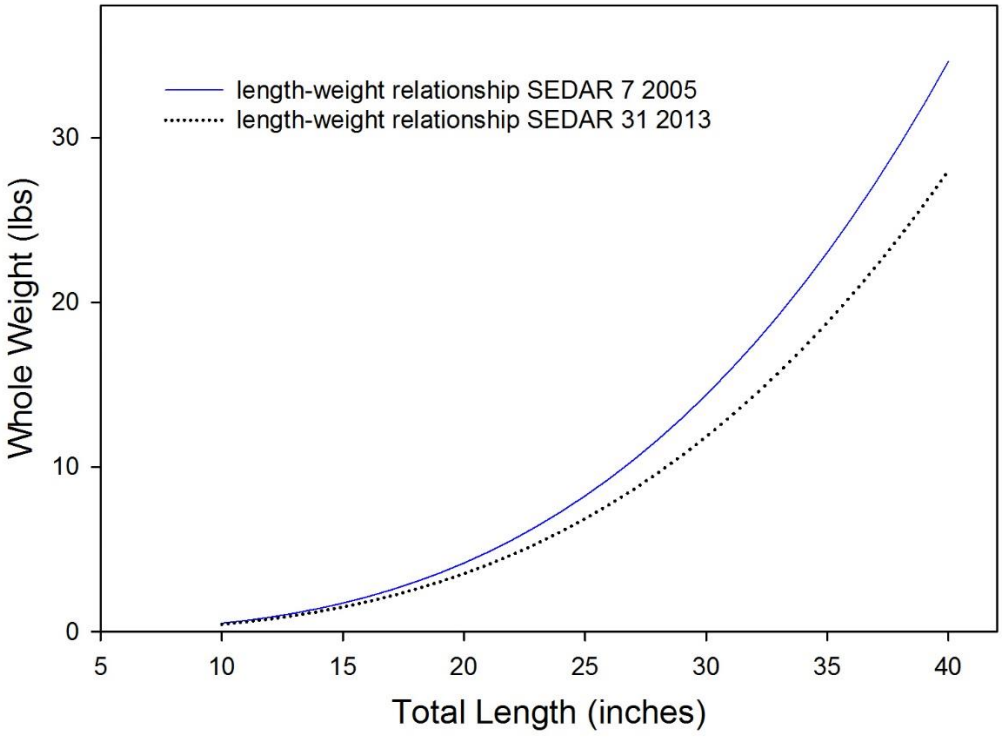

Figure 2.4.1. Red snapper length-weight relationship. Source: Conversion factors from SEDAR 7 (2005) and SEDAR 31 (2013).

2.5 Action 5 – Closures in Federal Waters of the Gulf

Alternative 1: No action – Regions may not establish closed areas in federal waters adjacent to their region.

Preferred Alternative 2: A region may establish closed areas within federal waters adjacent to their region in which the recreational harvest of red snapper is prohibited.

Option 2a: Areas of the Gulf may be closed for up to six months of the year.
Option 2b: No more than 50% of the federal waters adjacent to a region may be closed during the year.

***Proposed* Alternative 3:** A region may close all federal waters adjacent to their region in which the recreational harvest of red snapper is prohibited. All federal waters adjacent to a region must be either open or closed.

Discussion:

Currently, each Gulf State has the authority to open and close its state waters to fishing, while the authority to open and close federal waters to fishing resides with NMFS. Under regional management, the regions (consisting of one or more Gulf State) would be enabled to establish regional regulations for the recreational harvest of red snapper. While a region's delegation or CEP (Action 1) is active, the federal waters adjacent to that region would remain open and there would be no inconsistent regulations for state and federal waters. To constrain landings to its portion of the recreational ACL, regions would establish the dates for the recreational harvest of red snapper and enforcement would be carried out dockside. When a region estimates that its portion of the recreational ACT (reduced from the ACL) has been met, the region would prohibit further landings of red snapper in the region (i.e., close the season). The federal waters adjacent to the region could remain open, allowing anglers from other regions to fish for red snapper that they intend to land in their region's open season. Thus under **Alternative 1**, it may be possible for federal waters to remain open year round to recreational red snapper fishing, and regions would control harvest by establishing when red snapper may be landed in the region.

If regional management is implemented, the fixed recreational closed season for red snapper in federal waters would be removed and become part of the federal default regulations, applied in the event a region's delegation is inactive or its CEP is not approved. Removal of the fixed closed season would allow individual regions to establish their fishing season, during which anglers may harvest red snapper from the region's state waters and federal waters. Under **Alternative 1**, as long as all regions have active regional management (Action 1) and the recreational sector ACL was not exceeded in the previous year (Action 7), anglers fishing from and returning to land in a region with an open red snapper season would be able to harvest red snapper from anywhere in federal waters, including areas of federal waters adjacent to a region in which the red snapper season is closed.

A region may want to establish sub-regional fishing seasons for red snapper, such that the season is open in one part of the region while closed in another, and vice versa. A region would be able

to do so under **Alternative 1**, provided the region's delegation or CEP is active. Establishing sub-regional fishing seasons is possible under **Alternative 1** because the region would specify where red snapper may be landed within the region, and where landings are prohibited; with active regional management, inconsistent regulations do not occur because the region's active delegation or approved CEP would authorize the region's regulations to apply to its anglers in both state and federal waters. As an example, Florida could propose different fishing seasons for the Panhandle and west Florida area, based on optimizing fishing opportunities for each sub-region based on different tourist seasons and times of rough weather. Federal waters adjacent to Florida would remain open during the respective closed season of each sub-region. Anglers fishing from a sub-region during the open season could fish in the state waters of the sub-region as well as adjacent federal waters, including federal waters adjacent to other regions. When a sub-region is closed to red snapper fishing, landings of red snapper would be prohibited in that sub-region. Thus, an angler fishing during the open season of the proposed Panhandle sub-region could fish for red snapper anywhere in federal waters, provided that the angler lands the catch in the Panhandle sub-region.

Preferred Alternative 2 would allow a region to close areas within federal waters adjacent to its region, and **Alternative 3** would allow the region to close all (or none) of the federal waters adjacent to the region at any given time to the harvest of red snapper. Because the States already have the authority to establish fishing closures and prohibit landings within their state waters, it is not necessary to close federal waters should a region establish sub-regional fishing seasons for red snapper. Thus, a region intending to close part(s) (**Preferred Alternative 2**) or all (**Alternative 3**) of the federal waters adjacent to its region may wish to do so to restrict the amount of red snapper taken from federal waters, to allow a longer state water fishing season. Closing all or part of federal waters adjacent to a region would allow for inconsistent regulations to be established between state and federal waters, raising enforcement concerns. These alternatives would not allow regions to establish marine protected areas within federal waters nor restrict commercial vessels from harvesting red snapper from these areas.

Closing parts or all of federal waters adjacent to a region (**Preferred Alternative 2** or **Alternative 3**, respectively) could unintentionally allow, or prohibit, some harvest of red snapper to occur. These issues could be most problematic near state boundaries. For example, a region could use this alternative to prohibit all recreational vessels from retaining red snapper from federal waters adjacent to the region (Figure 2.1.1) while allowing its state waters to remain open. The intent would be to provide a longer fishing season by constraining the harvest coming from part of the region's jurisdiction. To provide a hypothetical example, if Alabama closed federal waters adjacent to its state waters but allowed state waters to remain open, while Florida and Mississippi have both their state waters and portion of federal waters open (Figure 2.5.1), then vessels from Alabama could harvest red snapper from federal waters off Florida and Mississippi, and land in Alabama, provided they do not transit through Alabama's portion of federal waters. Although Alabama intended to extend its fishing season by constraining where harvest may occur in its own region (only in its state waters), the additional harvest from the federal waters off neighboring Mississippi or Florida could result in Alabama's regional ACL being caught faster. Conversely, vessels from Mississippi and Florida, where the red snapper season is open in both state and federal waters, would be prohibited from retaining red snapper from Alabama's portion of federal waters, even though those fish would only count against the

regional ACL of the State where landed, i.e., Mississippi or Florida. Thus, this hypothetical use of the closed area alternative unintentionally allowed for greater landings by Alabama anglers and unintentionally restricted fishing opportunities for Mississippi and Florida's anglers.

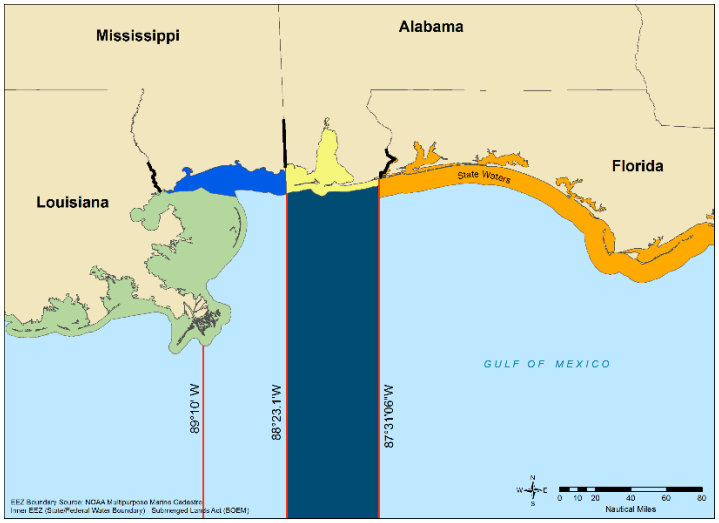

Figure 2.5.1. Visualization of the hypothetical example described for Preferred Alternative 2. The dark shaded area represents federal waters adjacent to Alabama's state waters (see Figure 2.1.1).

The options under **Preferred Alternative 2** would establish parameters for the potential areas of federal waters which may be closed. If no option is selected, the region could potentially close areas of federal waters year round, and the closed area could be the entire federal waters adjacent to the region's state waters, making this alternative equivalent to **Alternative 3**. If **Option 2a** is selected, a region could establish closed areas within federal waters adjacent to its region for up to six months of the year. Selecting **Option 2b** would limit the extent of the area of federal waters that may be closed, to up to 50% of the federal waters adjacent to a region's state waters, but does not place restrictions on the number of areas which could be closed. Should a region intend to use federal water closures as part of its regional management plan, such closures must be an approved part of the region's approved regional management, and may require additional review and analysis to ensure environmental compliance, potentially through an environmental assessment.

2.6 Action 6 – Apportioning the Recreational ACL (Quota) among Regions

Alternative 1: No Action – Retain current federal regulations for allocating the recreational sector ACL between the private angling component and federal for-hire component for the years 2015-2017. Do not divide the recreational sector ACL among regions.

Alternative 2: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on the average of historical landings for the years **1986-2013**.

Alternative 3: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on the average of historical landings for the years **1996-2013**.

Alternative 4: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on the average of historical landings for the years **2006-2013**.

Preferred Alternative 5: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on **50%** of average historical landings for the years **1986-2013** and **50%** of average historical landings for the years **2006-2013**.

Preferred Alternative 6: In calculating regional apportionments, exclude from the selected time series:

Preferred Option a: 2006 landings
Preferred Option b: 2010 landings

Alternative 7: Apportion the recreational sector ACL into eastern and western regional ACLs (or component ACLs) divided approximately at the Mississippi River, based on regional biogeographical differences in the stock used in the stock assessments.

Alternative 8: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 such that each region's allocation provides an equivalent number of fishing days.

Discussion:
The adoption of regional management for the recreational sector will require the recreational sector ACL (or component ACLs; see Action 2) to be apportioned, or allocated, among the selected regions to create regional ACLs. Allocation is an inherently controversial issue because a limited resource is divided among competing user groups, each of which benefits from receiving the largest portion possible. Allocation decisions would need to follow the Principles and Guidelines for Allocation adopted by the Council (Appendix E).

Alternative 1 (no action) would continue to apportion the recreational sector ACL between the components established in Amendment 40 (GMFMC 2014) for the years 2015-2017 and would not apportion the recreational sector ACL among regions of the Gulf. Currently, there is no expressed state allocation; the proportion of the total recreational landings made up by each State varies from year to year, as shown in Table 2.6.1.

Table 2.6.1. Percentage of annual recreational red snapper landings by state (1986-2014), based on whole weight (ww) of fish.

Year	Alabama	Florida	Louisiana	Mississippi	Texas
1986	11.5%	55.3%	18.1%	0.1%	15.0%
1987	18.5%	43.7%	13.5%	2.6%	21.7%
1988	16.4%	30.0%	33.1%	0.7%	19.8%
1989	18.5%	12.3%	24.1%	11.7%	33.3%
1990	39.7%	17.8%	16.9%	3.4%	22.2%
1991	30.1%	15.1%	33.2%	6.2%	15.5%
1992	32.7%	8.1%	24.5%	16.6%	18.2%
1993	29.3%	17.5%	22.7%	12.7%	17.9%
1994	32.1%	13.9%	21.1%	8.1%	24.7%
1995	31.9%	10.3%	28.3%	2.9%	26.6%
1996	32.8%	18.7%	16.6%	4.0%	27.9%
1997	39.1%	14.8%	16.8%	9.8%	19.5%
1998	29.8%	28.7%	14.9%	3.9%	22.8%
1999	39.7%	28.6%	15.8%	4.1%	11.8%
2000	29.6%	35.8%	18.6%	1.1%	14.9%
2001	42.3%	39.9%	6.0%	2.1%	9.7%
2002	40.1%	38.7%	6.2%	3.6%	11.4%
2003	37.9%	36.3%	8.9%	6.0%	10.9%
2004	30.0%	53.9%	5.8%	0.4%	9.9%
2005	29.1%	48.0%	10.4%	0.1%	12.5%
2006	20.0%	51.0%	12.2%	0.8%	16.0%
2007	19.5%	56.7%	15.6%	0.1%	8.0%
2008	17.1%	57.5%	15.7%	1.0%	8.6%
2009	21.6%	47.0%	18.8%	0.8%	11.8%
2010	21.3%	55.9%	5.0%	0.4%	17.3%
2011	53.6%	29.3%	8.9%	1.0%	7.2%
2012	35.9%	32.5%	19.2%	4.2%	8.2%
2013	45.8%	39.1%	5.6%	4.4%	5.1%
2014	30.0%	42.5%	16.3%	1.2%	10.0%

Source: Southeast Fisheries Science Center (SEFSC) annual catch limit dataset, including Calibrated MRIP, TPWD, and Southeast Region Headboat Survey (SRHS) landings. Alabama and the Florida Panhandle SRHS landings are initially reported to the same headboat fishing area. Landings have been assigned to each state based on the SRHS vessel landing records (May 2015). Actual landings are provided in the Appendix (Table F-1).

Alternatives 2-4 and **Preferred Alternative 5** propose methods for apportioning the recreational ACL based on the average proportion of historical landings for different time series. Regardless of the alternative selected, in some years, each State's landings exceeds its average landings. This means that requiring the states to constrain their catches to a fixed percentage of

the recreational sector ACL could restrict the fluctuations in annual landings that occur in some years.

Alternatives 2-5 present four ways to apportion the recreational sector ACL using averages of historical landings for varying time series (Table 2.6.2). **Preferred Alternative 6** provides options for excluding particular years from the historical landings averages, due to impacts that affected recreational fishing opportunities during or immediately preceding those years (e.g., fishing closures following the Deepwater Horizon MC252 oil spill). The two years provided were discussed at a joint meeting of the five Gulf States' respective heads of their natural resource departments. Hurricane Katrina struck late in the fishing season of 2005, therefore landings from 2006 are proposed for exclusion. The Deepwater Horizon MC252 oil spill began in April 2010, prior to the opening of the 2010 recreational red snapper season (see Figure 3.3.1 for the extent of the fishing closures). **Option a** would exclude landings from 2006 from each time series (Table 2.6.3), and **Option b** would exclude landings from 2010 from the time series (Table 2.6.4). Resulting averages for landings if both options are selected are provided in Table 2.6.5. The exclusion of landings from 2006 (**Option a**), 2010 (**Option b**), or both (**Options a** and **b**) could be selected alongside any one of **Alternatives 2-5**. In Amendment 40, the Council chose to exclude landings from 2010 (**Preferred Option b**) from the allocation formula, but did not exclude landings from 2006 (**Preferred Option a)**.

Table 2.6.2. Resulting proportions of the recreational ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series.

Alternative	Years	Alabama	Florida	Louisiana	Mississippi	Texas
2	1986-2013	30.2%	33.4%	16.3%	4.0%	16.0%
3	1996-2013	32.5%	39.6%	12.3%	2.6%	13.0%
4	2006-2013	29.4%	46.1%	12.7%	1.6%	10.3%
5	50% (1986-2013), 50% (2006-2013)	29.8%	39.8%	14.5%	2.8%	13.1%

Note: Actual landings on which Tables 2.6.2 – 2.6.5 are based can be found in the Appendix (Table F-1).

Table 2.6.3. Resulting proportions of the recreational ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2006.

Alternatives 2 -5 with Pref. Alt. 6 Pref. Option a	Years	Alabama	Florida	Louisiana	Mississippi	Texas
Alternative 2	1986-2013	30.6%	32.8%	16.5%	4.1%	16.0%
Alternative 3	1996-2013	33.3%	38.9%	12.3%	2.8%	12.8%
Alternative 4	2006-2013	30.7%	45.4%	12.7%	1.7%	9.5%
Alternative 5	50%:50%	30.6%	39.1%	14.6%	2.9%	12.7%

Table 2.6.4. Resulting proportions of the recreational ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2010.

Alternatives 2-5 with Pref Alt. 6 Pref. Option b	Years	Alabama	Florida	Louisiana	Mississippi	Texas
Alternative 2	1986-2013	30.5%	32.6%	16.7%	4.2%	16.0%
Alternative 3	1996-2013	33.2%	38.6%	12.7%	2.8%	12.7%
Alternative 4	2006-2013	30.5%	44.7%	13.7%	1.7%	9.3%
Alternative 5	50%:50%	30.5%	38.7%	15.2%	2.9%	12.6%

Table 2.6.5. Resulting proportions of the recreational ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2006 and 2010.

Alternatives 2-5 with Pref. Alt. 6 Pref. Options a & b	Years	Alabama	Florida	Louisiana	Mississippi	Texas
Alternative 2	1986-2013	31.0%	31.9%	16.9%	4.3%	16.0%
Alternative 3	1996-2013	34.0%	37.8%	12.7%	2.9%	12.5%
Alternative 4	2006-2013	32.3%	43.7%	14.0%	1.9%	8.1%
Pref. Alternative 5	50%:50%	31.6%	37.8%	15.4%	3.1%	12.1%

Table 2.6.6. Projected range for length of regional recreational red snapper seasons (min-max days) based on allocations provided in Table 2.6.5. All catch rates are subject to high levels of uncertainty, especially Mississippi.

Alternatives 2-5 with Pref. Alt. 6 Pref. Options a & b	Alabama	Florida	Louisiana	Mississippi	Texas
Alternative 2	17-17	11-16	51-51	183-183	74-74
Alternative 3	18-19	13-19	38-38	124-124	57-58
Alternative 4	17-18	15-22	42-42	81-81	37-37
Pref. Alternative 5	17-17	13-19	46-46	132-132	56-56

Note: Range of projections based on three scenarios: 1) Constant catch rates from Wave 3 2014 for charter boat with increasing average weights from regressions on 2007-2014 data, constant catch rates and average weights from 2014 June 1-9 data for private boats, and constant catch rates and average weights from June 2014 from headboats; 2) Constant catch rates and average weights from Wave 3 2014 for private and charter, constant catch rates and average weights from June 2014 from headboat; and 3) constant catch rates and average weights from June 1-9, 2014 for private and charter boats and constant catch rates and average weights from June 2014 for headboat.

Table 2.6.6 provides estimates for a range of potential season lengths based on the allocations provided by **Alternatives 2-6**, as shown in Table 2.6.5. The methodology for deriving the estimates is provided below the table. The catch rates are subject to high levels of uncertainty, especially for Mississippi, and should be viewed with caution.

Alternative 7 considers apportioning the recreational sector ACL based on the projected yields for the acceptable biological catch (ABC) for the eastern and western Gulf, as derived from the updated projections from the 2009 assessment (Linton 2012a), and may be selected as preferred if Alternatives 2 or 3 are selected as preferred in Action 3. The resulting apportionments of the ABC from that assessment would be 48.5% for the eastern and 51.5% for the western Gulf (Linton 2012a).

As discussed in Action 3, all the alternatives for creating regions fall along State boundaries. Although the eastern and western regions proposed under Action 3's Alternative 2 most closely approximate the eastern and western components used in the stock assessment, they do not overlap exactly. There would be a difference in using the proportion of red snapper suggested by the stock assessment that could be taken from each sub-unit, and the proportion of aggregated states' landings coinciding with the selection of Action 2's Alternative 2. Nevertheless, **Alternative 7** would provide a biologically based apportionment for regional management. Action 2's Alternative 3 would also divide the Gulf into eastern and western regions, but its regional boundary, between Mississippi and Alabama, deviates further from the eastern and western components of the stock assessment than Action 2's Alternative 2. The projected regional recreational red snapper seasons resulting from **Alternative 7** would be 10-13 days in the eastern region and 93-94 days in the western region. As stated for Table 2.6.6, these estimates are subject to high levels of uncertainty.

It is possible that one or more states may opt out and not participate in regional management. If only one state opts out, the remaining four states would still receive their portion of the ACL, as specified in the selected preferred alternative. This means that a single non-participating state's landings would be restricted to the remaining balance of the recreational ACL (or component ACL), equivalent to the portion of the ACL it would receive if participating in regional management. Should more than one state choose to opt out, the participating states would still receive their respective portions of the recreational ACL. The regional ACL which would have been distributed to each non-participating state would be pooled and NMFS would estimate the length of the fishing season based on the aggregate amount of quota. Those states would then fish under the federal default regulations and a shared federal fishing season.

Alternative 8 would apportion the recreational sector ACL (or component ACLs) among regions such that the initial allocation provides an equivalent number of fishing days for each region. To calculate regional allocations such that an equivalent number of fishing days results for each region, three scenarios were analyzed. The first scenario is based on projected 2015 average fish weights and 2014 catch rates for-hire vessels, and 2014 catch rates and average fish weights for landings made from private angling vessels and headboats. The second scenario is based on the observed catch rates and average fish weights for all sectors and components using 2014 landings from Wave 3. The third scenario is based on the observed catch rates and average fish weights for all sectors and components during the June 1-9, 2014 federal red snapper fishing

season. These projection methodologies are discussed in greater detail in SERO-LAPP-2015-04. Each scenario produces a slightly different allocation, as each scenario is based on different information, including landings by mode and time series. Thus, a range of potential allocations derived from the three scenarios is provided in Table 2.6.7. Under projected 2015 catch rates, eastern Gulf States would require more allocation and western Gulf States would require less allocation than currently provided under **Preferred Alternative 5**. This is primarily due to the rapid growth of eastern Gulf catch rates in recent years.

Table 2.6.7. Resulting proportions of the recreational sector ACL that could be apportioned to each state such that each region's allocation provides an equivalent number of fishing days (Alternative 8) at the time of apportionment.

State	Alabama	Florida	Louisiana	Mississippi	Texas
Allocation range	34.6-41.7%	45.3-54.9%	6.1-7.6%	0.4-0.5%	4.0-4.9%
Difference from Table 2.6.5 Alt 5	3.0-10.1%	7.5-17.1%	-9.3--7.8%	-2.7--2.6%	-8.1--7.2%

Source: SERO-LAPP-2015-04, N. Farmer, pers. comm.

An additional issue may arise for individual regions to monitor and constrain catches to their apportioned regional ACL. NMFS regularly issues exempted fishing permits (EFPs) for research or activities which would otherwise be considered fishing. Fish harvested under an EFP are exempt from specific regulations such as bag limits, size limits, and fishing seasons. Because the fish landed under a research activity EFP are normally accounted for in the stock assessment process, before any quotas or allocations are established, these fish are not deducted from the quota. However, there are instances where NMFS may determine that an EFP is specific to a fishing quota or allocation, and may require the regions to account for those fish during a fishing season. If a quantity of fish under an EFP is required to be monitored and accounted for by regions under regional management, the region will be responsible for accounting for these landings, along with their other monitoring to assure they do not exceed their portion of the ACL.

2.7 Action 7 – Post-Season Accountability Measures (AMs)

Alternative 1: No action – Retain the current post-season AMs for managing overages of the recreational sector ACL in federal waters of the Gulf. While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the recreational sector ACL (quota) is exceeded, reduce the **recreational sector** ACL in the following year by the full amount of the overage, unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary. The component ACTs for the years 2015-2017 will be adjusted to reflect the previously established percent buffer.

Preferred Alternative 2: While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the combined recreational landings exceed the recreational sector ACL, then reduce in the following year the **regional ACL** of any region that exceeded its regional ACL by the amount of the region's ACL overage in the prior fishing year. The recreational ACTs will be adjusted to reflect the previously established percent buffer.

Alternative 3: While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the combined recreational landings exceed the recreational sector ACL, then reduce in the following year the **component ACL** (federal for-hire and/or private angling) by the full amount of the respective component's overage. The regional ACLs will be adjusted to reflect the regional allocations and the recreational ACTs will be adjusted to reflect the previously established percent buffer.

Alternative 4: While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the combined recreational landings exceed the recreational sector ACL, in the following year: reduce the **component ACL**s by the full amount of a component's ACL overage; for the private angling component's ACL (or the federal for-hire component ACL, if federal for-hire regional ACLs are established), reduce the **regional ACL** of any region that exceeded its regional ACL by the amount of the region's ACL overage in the prior fishing year. The recreational ACTs will be adjusted to reflect the previously established percent buffer.

Note: For **Alternatives 2-4**, the overage would be deducted from the regional ACL and/or component ACL, rather than the recreational sector ACL, as specified in the alternative, unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary. Also, if the total recreational landings from all regions and components, if applicable, do not exceed the Gulf-wide recreational sector ACL in that year, neither the recreational sector ACL nor the regional and/or component ACLs would be reduced to account for a regional or component ACL overage.

Discussion:

Section 407(d) of the Magnuson-Stevens Act requires that the Council ensure the FMP (and its implementing regulations) have conservation and management measures that establish a separate sector ACL for recreational fishing (private and for-hire vessels) and prohibit the retention of red snapper caught for the remainder of the fishing year once that sector ACL is reached. The

national standard 1 guidelines identify two types of AMs: in-season and post-season. These AMs are not mutually exclusive and should be used together where appropriate. In 2014, the Council adopted an in-season AM to create an ACT determined by deducting 20% from the ACL. To correct or mitigate any overages during a specific fishing year (50 CFR 600.310(g)), the Council also adopted a post-season AM which would reduce the recreational sector ACL in the year following an overage by the full amount of the overage (**Alternative 1**) unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary.

Alternative 1 (**no action**), would continue to apply the recently adopted post-season AM Gulf-wide. Although the possibility of triggering an overage adjustment would encourage regions to constrain harvest to the region's ACL, the Gulf-wide approach may be perceived as inequitable across regions. For example, if a particular region greatly exceeded their regional ACL, then the necessary overage adjustment may restrict the length of the following year's fishing season both in the region with the overage and the other regions which did not exceed their regional ACL. If this occurs, this may reduce the flexibility provided to the regions under regional management.

Preferred Alternative 2 would apply the post-season AM only to a region or regions which exceeded its portion of the recreational sector ACL. With the apportionment of regional ACLs, **Preferred Alternative 2** would prevent the overage adjustment from affecting regions that do not exceed their regional ACL. However, if a region's overage is greater than the following year's regional ACL, then the region may not have a recreational red snapper season in the following year. The overage adjustments would need to be taken into account when regions develop their management strategy, including the length of the fishing season for the following year. **Preferred Alternative 2** would encourage a region to constrain harvest to the regional ACL to ensure that the overage adjustment is not applied to the recreational season for the following year. Regardless of a region exceeding its ACL, an overage adjustment would only need to be applied if the Gulf-wide recreational sector ACL was exceeded.

Alternative 3 would apply the post-season AM to the component (for-hire or private angling) that exceeds its component ACL in the prior fishing year. In the event the Gulf-wide recreational sector ACL is exceeded, the component that exceeded its portion of the ACL would have its component ACL reduced in the following year by the amount of the overage. This alternative would prevent the overage adjustment from affecting a component of the recreational sector that does not exceed its component ACL.

Alternative 4 combines the overage adjustments of the component (**Preferred Alternative 2**) and region (**Alternative 3**) that exceeds its respective portion of the ACL, by applying the post-season AM to both a region and component that has exceeded its portion of the recreational ACL in the previous year. Although the possibility of triggering an overage adjustment would encourage both regions and the components to constrain harvest to the respective ACLs, a region and sector-wide approach may be perceived as inequitable by the different regions and components should a region or component remain within its portion of the ACL, yet have its portion of the ACL reduced in the following year due to overages by other regions or component.

CHAPTER 3. AFFECTED ENVIRONMENT

The actions considered in this environmental impact statement (EIS) would affect recreational fishing for red snapper in federal and state waters of the Gulf of Mexico (Gulf). Descriptions of the physical, biological, economic, social, and administrative environments were completed in the EIS for Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007), the Generic Essential Fish Habitat (EFH) Amendment (GMFMC 2004a), and the Generic Annual Catch Limits/Accountability Measures (ACL/AM) Amendment (GMFMC 2011b). Below, information on each of these environments is summarized or updated, as appropriate.

3.1 Description of the Red Snapper Component of the Reef Fish Fishery

A description of the fishery and affected environment relative to red snapper was last fully discussed in joint Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007). This section updates the previous description to include additional information since publication of that EIS.

General Features

Commercial harvest of red snapper from the Gulf began in the mid-1800s (Shipp 2001). In the 1930s, party boats built exclusively for recreational fishing began to appear (Chester 2001). Since 2007, the commercial sector has operated under an individual fishing quota (IFQ) program. In 2011, 362 vessels participated in the IFQ program (NMFS 2012a). The recreational sector operates in three modes, charter boats, headboats, and private vessels. In 2012, private vessels accounted for 70.1% of recreational red snapper landings, followed by charter boats (20.3%) and headboats (9.6%). On a state-by-state basis, Alabama accounted for the most landings (36.1%), followed by Florida (32.3%), Louisiana (19.2%), Texas (8.2%), and Mississippi (4.2%) (Table 3.1.1).

Table 3.1.1. Recreational red snapper landings in 2012 by state and mode.

State	Landings (lbs whole weight)				% by State
	Charter	Headboat	Private	All Modes	
FL (west)	806,118	205,830	1,420,620	2,432,569	**32.3%**
AL	445,816	71,482	2,197,377	2,714,675	**36.1%**
MS	1,406	5,894	306,854	314,154	**4.2%**
LA	236,145	21,199	1,188,763	1,446,106	**19.2%**
TX	39,128	419,671	157,937	616,736	**8.2%**
Total	**1,528,613**	**724,077**	**5,271,550**	**7,524,239**	
% by Mode	**20.3%**	**9.6%**	**70.1%**		**100%**

Source: NMFS 2014.

The red snapper stock has been found to be in decline or overfished in every stock assessment conducted, beginning with the first assessment in 1986 (Parrack and McClellan 1986). However, following the SEDAR 31 benchmark assessment (SEDAR 31 2013), the Scientific and Statistical Committee (SSC) concluded that, as of 2011, overfishing was no longer occurring (GMFMC 2013c). Based on an update assessment presented to the SSC in January 2015 (GMFMC 2015a) and landings data through 2014, the determination that overfishing is not occurring has continued through 2014. Implemented in 1990, Amendment 1 (GMFMC 1989) established the first red snapper rebuilding plan. From 1990 through 2009, red snapper harvest was managed through the setting of an annual total allowable catch (TAC), which has been divided into allocations of 51% commercial, and 49% recreational. Beginning in 2010, TAC was phased out in favor of an ACL. The red snapper rebuilding plan formally adopted the use of the term ACL in Amendment 40 (GMFMC 2014). Until that time, by allocating the acceptable biological catch (ABC) between the commercial and recreational sectors, and then setting quotas for each sector that do not exceed those allocations, the terminology and approaches used in the red snapper rebuilding plan were consistent with the use of ACLs, and optionally annual catch targets (ACTs) as discussed in the national standard 1 guidelines. Such alternative terminology is allowed under the guidelines.

Also in 1990, Amendment 1 established a commercial red snapper quota of 2.65 million pounds (mp) whole weight (ww). There was no explicit recreational allocation specified, only a bag limit of 7 fish and a minimum size limit of 13 inches total length (TL). Based on the 51:49 commercial to recreational sector allocation, the commercial quota implied a TAC of about 6.0 mp in 1990, followed by explicit TACs of 4.0 mp in 1991 and 1992, 6.0 mp in 1993 through 1995, and 9.12 mp from 1996 through 2006. The TAC was reduced to 6.5 mp in 2007 and 5.0 mp in 2008 and 2009.

In 2010, the ABC was increased to 6.945 mp. In 2011, it was initially raised to 7.185 mp, and then increased in August by another 345,000 lbs (7.530 mp total) which was allocated to the recreational sector. In 2012 the ABC was raised to 8.080 mp. A scheduled increase in 2013 to 8.690 mp was cancelled due to an overharvest in 2012 by the recreational sector. After an analysis of the impacts of the overharvest on the red snapper rebuilding plan, the 2013 ABC was increased to 8.460 mp. In July 2013, the Council reviewed a new benchmark assessment (SEDAR 31 2013) which showed that the red snapper stock was rebuilding faster than projected, partly due to strong recruitment in some recent years. Combined with a new method for calculating the ABC, the Scientific and Statistical Committee (SSC) increased the ABC for 2013 to 13.5 mp, but warned that the catch levels would have to be reduced in future years if recruitment returned to average levels. After incorporating a buffer to reduce the possibility of having to later reduce the quota, the Gulf of Mexico Fishery Management Council (Council) further increased the 2013 commercial and recreational quotas to a combined 11.0 mp (5.61 mp and 5.39 mp respectively) (GMFMC 2013b). This increase occurred too late to extend the June recreational season, so the Council requested that the National Marine Fisheries Service (NMFS) reopen the recreational season on October 1 for whatever number of days would be needed to harvest the additional quota. NMFS estimated that the additional recreational quota would take 14 days to be caught, and therefore announced a supplemental season of October 1 through 14.

Both the commercial and recreational sectors have had numerous allocation overruns. Table 3.1.2 shows a comparison of quotas and actual harvests from 1990 through 2013. The

recreational sector has had allocation overruns in 21 out of 23 years in which an allocation was specified, while the commercial sector has had overruns in 10 of 23 years. The commercial sector has not had overruns since 2005.

Table 3.1.2. Red snapper landings and overage/underage by sector, 1986-2014. Landings are in mp ww. Commercial quotas began in 1990. Recreational allocations began in 1991 and recreational quotas began in 1997. Summing the recreational allocation/quota and the commercial quota yields the total allowable catch (TAC) for the years 1991-2009 and the acceptable biological catch (ABC) for 2010-2014.

	Recreational			Commercial			Total		
Year	**Alloc. Quota**	**Actual landings**	**Difference**	**Quota**	**Actual landings**	**Diff-erence**	**Quota**	**Actual landings**	**Difference**
1986	na	3.491	na	na	3.700	na	na	6.470	na
1987	na	2.090	na	na	3.069	na	na	4.883	na
1988	na	3.139	na	na	3.960	na	na	6.528	na
1989	na	2.940	na	na	3.098	na	na	5.754	na
1990	na	1.625	na	3.1	2.650	-0.450	na	4.264	na
1991	1.96	2.917	+0.957	2.04	2.213	+0.173	4.0	5.130	+1.130
1992	1.96	4.618	+2.658	2.04	3.106	+1.066	4.0	7.724	+3.724
1993	2.94	7.161	+4.221	3.06	3.374	+0.314	6.0	10.535	+4.535
1994	2.94	6.076	+3.136	3.06	3.222	+0.162	6.0	9.298	+3.298
1995	2.94	5.464	+2.524	3.06	2.934	-0.126	6.0	8.398	+2.398
1996	4.47	5.339	+0.869	4.65	4.313	-0.337	9.12	9.652	+0.532
1997	4.47	6.804	+2.334	4.65	4.810	+0.160	9.12	11.614	+2.494
1998	4.47	4.854	+0.384	4.65	4.680	+0.030	9.12	9.534	+0.414
1999	4.47	4.972	+0.502	4.65	4.876	+0.226	9.12	9.848	+0.728
2000	4.47	4.750	+0.280	4.65	4.837	+0.187	9.12	9.587	+0.467
2001	4.47	5.252	+0.782	4.65	4.625	-0.025	9.12	9.877	+0.757
2002	4.47	6.535	+2.065	4.65	4.779	+0.129	9.12	11.314	+2.194
2003	4.47	6.105	+1.635	4.65	4.409	-0.241	9.12	10.514	+1.394
2004	4.47	6.460	+1.990	4.65	4.651	+0.001	9.12	11.111	+1.991
2005	4.47	4.676	+0.206	4.65	4.096	-0.554	9.12	8.772	-0.348
2006	4.47	4.131	-0.339	4.65	4.649	-0.001	9.12	8.780	-0.340
2007	3.185	5.809	+2.624	3.315	3.153	-0.162	6.5	8.962	+2.462
2008	2.45	4.056	+1.606	2.55	2.461	-0.089	5.0	6.517	+1.517
2009	2.45	5.597	+3.147	2.55	2.461	-0.089	5.0	8.058	+3.058
2010	3.403	2.651	-0.752	3.542	3.362	-0.180	6.945	6.013	-0.932
2011	3.866	6.734	+2.868	3.664	3.562	-0.102	7.53	10.296	+2.766
2012	3.959	7.524	+3.565	4.121	4.000	-0.121	8.08	11.524	+3.444
2013	5.390	9.659	+4.269	5.610	5.399	-0.211	11.00	15.038	+4.038
2014	5.390	3.867	-1.523	5.054	5.016	-0.038	10.444	8.883	-1.561

Sources: For recreational landings, Southeast Fisheries Science Center (SEFSC) including landings from the Calibrated Marine Recreational Information Program (MRIP), Texas Parks and Wildlife Department (TPWD), and the Southeast Region Headboat Survey (SRHS) (December 2014). For commercial landings, Southeast Data Assessment and Review (SEDAR) 31 Data Workshop Report (1990-2011), commercial quotas/catch allowances report from NMFS/Southeast Regional Office (SERO) IFQ landings website (2012 commercial): http://sero.nmfs.noaa.gov/sf/ifq/CommercialQuotasCatchAllowanceTable.pdf.

Commercial quotas/landings in gutted weight were multiplied by 1.11 to convert to ww. Values highlighted in red are those where landings exceeded quotas. Data for 2014 provided by N. Farmer, pers. comm.

Recreational Red Snapper Sector

Red snapper are an important component of the recreational sector's harvest of reef fish in the Gulf. Recreational red snapper fishing includes charter boats, headboats (or party boats), and private anglers fishing primarily from private or rental boats. As with the commercial fishery, red snapper are primarily caught with hook-and-line gear in association with bottom structures. Recreational red snapper harvest allocations since 1991 have been set at 49% of the TAC, or 1.96 mp in 1991 and 1992, 2.94 mp for 1993 through 1995, and 4.47 mp from 1996 through 2006. In 2007, the recreational quota was reduced to 3.185 mp. It was reduced again to 2.45 mp in 2008 and 2009. Since 2010, the recreational quota has been increased each year: 3.403 mp in 2010, 3.866 mp in 2011, 3.959 mp in 2012, and 5.390 mp in 2013 (Table 3.1.3).

Before 1984, there were no restrictions on the recreational harvest of red snapper. In November 1984, a 12-inch fork length (FL) minimum size limit was implemented, but with an allowance for five undersized fish per person. In 1990, the undersized allowance was eliminated, the minimum size limit changed to 13 inches total length (TL) (approximately equal to 12 inches FL), and the recreational sector was managed through bag and size limits with a year-round open season. In 1997, the recreational red snapper allocation was converted into a quota with accompanying quota closure should the sector exceed its quota. Recreational quota closures occurred in 1997, 1998, and 1999, becoming progressively shorter each year even though the quota remained a constant 4.47 mp.

A fixed recreational season of April 21 through October 31 (194 days) was established for 2000 through 2007. However, NMFS returned to variable length seasons beginning in 2008. Under this management approach, due to a lag in the reporting of recreational catches, catch rates over the course of the season were projected in advance based on past trends and changes in the average size of a recreationally harvested red snapper. The recreational season opened each year on June 1 and closed on the date when the quota was projected to be reached. In 2008, the season length was reduced from 194 days to 65 days in conjunction with a reduction in quota to 2.45 mp. The season length then increased to 75 days in 2009. In 2010, the recreational red snapper season was originally projected to be 53 days. However, due to reduced effort and large emergency area closures resulting from the Deepwater Horizon MC252 oil spill, catches were below projections, and a one-time supplemental season of weekend only openings (Friday, Saturday, and Sunday) was established from October 1 through November 22. This added 24 fishing days to the 2010 season for a total of 77 days. In 2011, the season was reduced to 48 days despite an increase in the quota, due to an increase in the average size of a recreationally harvested fish. In 2012 the season was initially scheduled to be 40 days, but was extended to 46 days to compensate for the loss of fishing days due to storms (Table 3.1.3).

At the request of the Council at its February 2013 meeting, NMFS developed an emergency rule to adjust seasons off each Gulf State based on the extent to which their state-water seasons and bag limits were consistent with federal regulations. This was done to compensate for the additional harvest that would occur in state waters as a result of inconsistent regulations. A legal

challenge was made to the emergency rule and it was subsequently set aside by the U.S. District Court. As a result, the federal recreational red snapper season continued to be the same in federal waters off all five Gulf States. Initially, NMFS set a 28-day season beginning on June 1 for the recreational sector. However, in September 2013, NMFS announced an increase in the TAC which added 1.245 mp to the recreational quota, and a supplemental 14-day season beginning October 1. This resulted in a total of 42 recreational fishing days.

In 2014, NMFS initially announced a 40-day recreational season. However, in March 2014, as a result of a legal challenge, the U.S. District Court found that there was not an adequate system of accountability measures in place to prevent the recreational red snapper sector from exceeding its quota. To comply with the court decision, the Council approved the setting of a 20% buffer for the recreational sector catch. Also in 2014, a 2-year project was initiated under an exempted fishing permit (EFP) to evaluate the ability of a collaborative of headboats to self-regulate themselves. A portion of the red snapper recreational quota (256,487 lbs) was allocated to the headboat collaborative. In addition, several States extended their season for recreational red snapper harvest in state waters. The projected increase in state water caught red snapper reduced the amount of quota available to be caught in federal waters. As a result, the 2014 red snapper season in federal waters was shortened to 9 days (Table 3.1.3). The headboat collaborative was allowed to continue fishing under the EFP, and headboat collaborative trips continued throughout the year, although the number of trips dropped off markedly after August[6].

In 2015, Amendment 40 separated the recreational sector into a federally permitted for-hire component and a private angling component, with the recreational quota split between the two components. The headboat collaborative EFP's year-2 allocation of 215,027 lbs was deducted from the federally permitted for-hire component's quota. Some States further increased their state water recreational seasons, which further reduced the amount of quota available to be caught in federal waters by the private angling component. Federally permitted vessels were unaffected by the expanded state seasons since they are prohibited from fishing in state waters when the federal season is closed. This resulted in a federal season of 44 days for the federally permitted for-hire component, and 10 days for the private vessel component.

During the six years when the recreational harvest was an allocation, not a quota (1991 – 1996), actual recreational harvests in pounds of red snapper exceeded the allocation every year. During the period when the recreational harvest was managed as a quota (1997 – 2013), actual recreational harvest in pounds of red snapper exceeded the quota in 15 out of 17 years, including 5 of the last 6 years (Table 3.1.3). Historical recreational landings estimates have recently been revised to reflect changes in methodology under the Marine Recreational Information Program (MRIP).

[6] Presentation from NMFS at the March 2015 Council meeting on a review of year 1 of the headboat collaborative EFP. Available on the Gulf Council website's briefing book archives for the March 2015 meeting under Reef Fish Committee.

Table 3.1.3. Red snapper recreational landings vs. allocation/quota and days open 1986-2014. Landings are in mp ww. Recreational allocations began in 1991, and became quotas in 1997.

Year	Allocation/ Quota	Actual landings	Difference	% over or under quota	Days season open in federal waters
1986	na	2.770	na		365
1987	na	1.814	na		365
1988	na	2.568	na		365
1989	na	2.656	na		365
1990	na	1.614	na		365
1991	1.96	2.917	+0.957	+49%	365
1992	1.96	4.618	+2.658	+136%	365
1993	2.94	7.161	+4.221	+144%	365
1994	2.94	6.076	+3.136	+107%	365
1995	2.94	5.464	+2.524	+86%	365
1996	4.47	5.339	+0.869	+19%	365
1997	4.47	6.804	+2.334	+52%	330
1998	4.47	4.854	+0.384	+9%	272
1999	4.47	4.972	+0.502	+11%	240
2000	4.47	4.750	+0.280	+6%	194
2001	4.47	5.252	+0.782	+17%	194
2002	4.47	6.535	+2.065	+46%	194
2003	4.47	6.105	+1.635	+37%	194
2004	4.47	6.460	+1.990	+45%	194
2005	4.47	4.676	+0.206	+5%	194
2006	4.47	4.131	-0.339	-8%	194
2007	3.185	5.809	+2.624	+82%	194
2008	2.45	4.056	+1.606	+66%	65
2009	2.45	5.597	+3.147	+128%	75
2010	3.403	2.651	-0.752	-22%	53 + 24 = 77
2011	3.866	6.734	+2.868	+74%	48
2012	3.959	7.524	+3.565	+90%	46
2013	5.390	9.639	+4.249	+79%	42
2014	5.390	3.867	-1.523	-28%	9

Source: Southeast Fisheries Science Center (SEFSC) including calibrated landings from MRIP, Texas Parks and Wildlife Department (TPWD), and the Southeast Region Headboat Survey (SRHS) (May 2015). Values highlighted in red are those where landings exceeded quotas.

For-hire vessels have operated under a limited access system with respect to the issuance of new for-hire permits for fishing reef fish or coastal migratory pelagics since 2003. A total of 3,340 reef fish and coastal migratory pelagic charter permits were issued under the moratorium, and they are associated with 1,779 vessels. Of these vessels, 1,561 have both reef fish and coastal migratory pelagics permits, 64 have only reef fish permits, and 154 have only coastal migratory pelagics permits. About one-third of Florida charter boats targeted three or less species; two-thirds targeted five or less species; and 90% targeted nine or less species. About 40% of these

charter boats did not target particular species. The species targeted by the largest proportion of Florida charter boats were king mackerel (46%), grouper (29%), snapper (27%), dolphin (26%), and billfish (23%). In the eastern Gulf, the species receiving the most effort were grouper, king mackerel, and snapper. About 25% of Florida headboats targeted three or fewer species; 75% targeted four or fewer species; and 80% targeted five or fewer species. About 60% of headboats did not target any particular species. The species targeted by the largest proportion of Florida headboats are snapper and other reef fish (35%), red grouper (29%), gag grouper (23%), and black grouper (16%). In the eastern Gulf, the species receiving the most effort were snapper, gag, and red grouper (Sutton et al. 1999).

The majority of charter boats in Alabama, Mississippi, Louisiana, and Texas reported targeting snapper (91%), king mackerel (89%), cobia (76%), and tuna (55%). The species receiving the largest percentage of effort by charter boats in the four-state area were snapper (49%), king mackerel (10%), red drum (6%), cobia (6%), tuna (5%), and speckled trout (5%). The majority of headboat operators reported targeting snapper (100%), king mackerel (85%), shark (65%), tuna (55%), and amberjack (50%). The species receiving the largest percentage of total effort by headboats in the four-state area were snapper (70%), king mackerel (12%), amberjack (5%), and shark (5%) (Sutton et al. 1999).

Commercial Red Snapper Sector

In the Gulf, red snapper are primarily harvested commercially with hook-and-line and bandit gear, with bandit gear being more prevalent. Longline gear captures a small percentage of total landings (< 5%). Longline gear is prohibited for the harvest of reef fish inside of 50 fathoms west of Cape San Blas. East of Cape San Blas, longline gear is prohibited for harvest of reef fish inside of 20 fathoms, with a seasonal shift in the longline boundary to 35 fathoms during June through August to protect foraging sea turtles.

Between 1990 and 2006, the principal method of managing the commercial sector for red snapper was with quotas set at 51% of TAC and seasonal closures after each year's quota was filled. The result was a race for fish in which fishermen were compelled to fish as quickly as possible to maximize their catch of the overall quota before the season was closed. The fishing year was characterized by short periods of intense fishing activity with large quantities of red snapper landed during the open seasons rather than lower levels of activity with landings spread more uniformly throughout the year. The result was short seasons and frequent quota overruns (Table 3.1.4). From 1993 through 2006, trip limits, limited access endorsements, split seasons and partial monthly season openings were implemented in an effort to slow the race for fish. At the beginning of the 1993 season, 131 boats qualified for red snapper endorsements on their reef fish permits that entitled them to land 2,000 lbs of red snapper per trip.

In 2007, an IFQ program was implemented for the commercial red snapper sector. Each vessel that qualified for the program was issued an allocation of a percentage of the commercial quota based on historical participation. The allocations were issued as shares representing pounds of red snapper, which the fishermen could harvest, sell or lease to other fishermen, or purchase from other fishermen. Beginning in 2007, the commercial red snapper season is no longer closed, but a commercial vessel cannot land red snapper unless it has sufficient allocation in its

vessel account to cover the landing poundage. As a result, there have not been any quota overruns under the IFQ program (Table 3.1.4). The red snapper IFQ program is currently undergoing a 5-year review to determine if changes are needed to the program.

Table 3.1.4. Commercial red snapper harvest vs. days open, by sector, 1986-2014.

Year	Quota	Actual landings	Days Open (days that open or close at noon are counted as half-days) ("+" = split season)
1986	na	3.700	365
1987	na	3.069	365
1988	na	3.960	365
1989	na	3.098	365
1990	3.1	2.650	365
1991	2.04	2.213	235
1992	2.04	3.106	52½ + 42 = 94½
1993	3.06	3.374	94
1994	3.06	3.222	77
1995	3.06	2.934	50 + 1½ = 51½
1996	4.65	4.313	64 + 22 = 86
1997	4.65	4.810	53 + 18 = 71
1998	4.65	4.680	39 + 28 = 67
1999	4.65	4.876	42 + 22 = 64
2000	4.65	4.837	34 + 25 = 59
2001	4.65	4.625	50 + 20 = 70
2002	4.65	4.779	57 + 24 = 81
2003	4.65	4.409	60 + 24 = 84
2004	4.65	4.651	63 + 32 = 95
2005	4.65	4.096	72 + 48 = 120
2006	4.65	4.649	72 + 43 = 115
2007	3.315	3.183	IFQ
2008	2.55	2.484	IFQ
2009	2.55	2.484	IFQ
2010	3.542	3.392	IFQ
2011	3.664	3.594	IFQ
2012	4.121	4.036	IFQ
2013	5.610	5.399	IFQ
2014	5.054	5.016	IFQ

Source: SEDAR 31 Data Workshop Report (1990-2006), commercial quotas/catch allowances report from NMFS/Southeast Regional Office IFQ landings website (2007-2014): http://sero.nmfs.noaa.gov/sf/ifq/CommercialQuotasCatchAllowanceTable.pdf.
Commercial quotas/landings in gutted weight were multiplied by 1.11 to convert to ww. Values highlighted in red are those where landings exceeded quotas.

3.2 Description of the Physical Environment

The Gulf has a total area of approximately 600,000 square miles (1.5 million km^2), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel (Figure 3.2.1). Oceanographic conditions are affected by the Loop Current, discharge of freshwater into the northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf. The Gulf includes both temperate and tropical waters (McEachran and Fechhelm 2005). Gulf water temperatures range from 54º F to 84º F (12º C to 29º C) depending on time of year and depth of water. Mean annual sea surface temperatures ranged from 73 º F through 83º F (23-28º C) including bays and bayous (Figure 3.2.1) between 1982 and 2009, according to satellite-derived measurements (NODC 2012: http://accession.nodc.noaa.gov/0072888). In general, mean sea surface temperature increases from north to south with large seasonal variations in shallow waters.

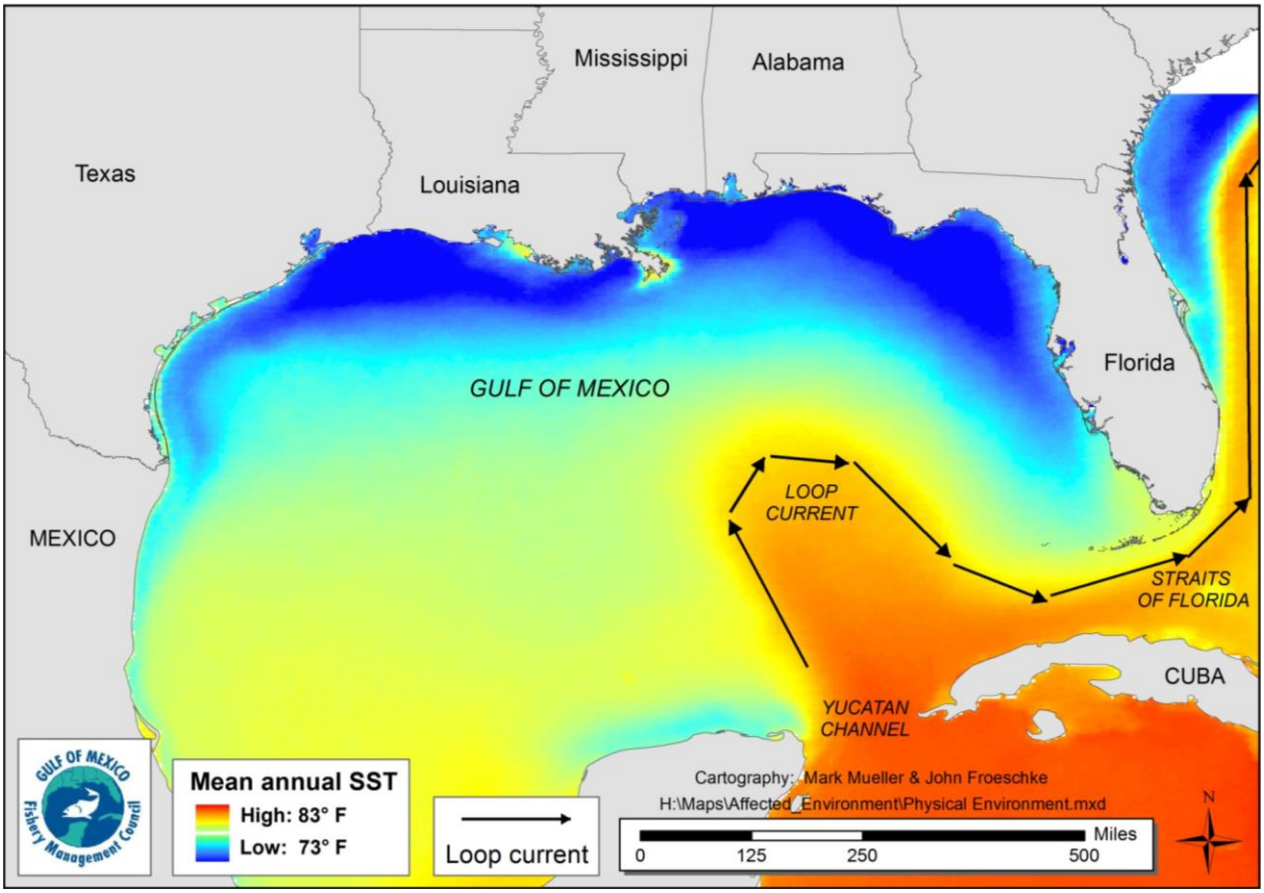

Figure 3.2.1. Physical environment of the Gulf including major feature names and mean annual sea surface temperature as derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (http://accession.nodc.noaa.gov/0072888).

There are several marine reserves, habitat areas of particular concern, and restricted fishing gear areas in the Gulf. These are detailed in GMFMC (2013a). The Bureau of Ocean Energy Management lists historic shipwrecks that occur in the Gulf. Most of these sites are in state or

deep federal (>1,000 feet) waters. There is one site located in federal waters in less than 100 feet that could be affected by reef fish fishing. This is the *U.S.S. Hatteras* located approximately 20 miles off Galveston, Texas.

In the Gulf, fish habitat for adult red snapper consists of submarine gullies and depressions; coral reefs, rock outcroppings, and gravel bottoms; oil rigs; and other artificial structures. Eggs and larvae are pelagic and juveniles are common on mud bottoms in the northern Gulf, particularly off Texas through Alabama (GMFMC 2004b).

3.3 Description of the Biological/Ecological Environment

The biological environment of the Gulf, including the species addressed in this amendment, is described in detail in the final EIS for the Generic EFH Amendment (GMFMC 2004a) and is incorporated here by reference.

Red Snapper Life History and Biology

Red snapper demonstrate the typical reef fish life history pattern (Table 3.3.1). Eggs and larvae are pelagic while juveniles are found associated with bottom features or over barren bottom. Spawning occurs over firm sand bottom with little relief away from reefs during the summer and fall. Adult females mature as early as two years and most are mature by four years (Schirripa and Legault 1999). Red snapper have been aged up to 57 years. Until recently, most caught by the directed fishery were 2- to 4-years old (Wilson and Nieland 2001), but a recently completed stock assessment suggests that the age and size of red snapper in the directed fishery has increased in recent years (SEDAR 31 2013). A more complete description of red snapper life history can be found in the EIS for the Generic EFH Amendment (GMFMC 2004a).

Status of the Red Snapper Stock

Southeast Data Assessment and Review (SEDAR) 31 Benchmark Stock Assessment

Commercial harvest of red snapper from the Gulf began in the mid-1800s (Shipp 2001). In the 1930s, party boats built exclusively for recreational fishing began to appear (Chester 2001). The first stock assessment conducted by NMFS in 1986 suggested that the stock was in decline (Parrack and McLellan 1986) and since 1988 (Goodyear 1988) the stock biomass has been found to be below threshold levels.

The most recent benchmark red snapper stock assessment was completed in 2013 (SEDAR 31 2013). The primary assessment model selected for the Gulf red snapper stock evaluation assessment was Stock Synthesis (Methot 2010). Stock Synthesis is an integrated statistical catch-at-age model which is widely used for stock assessments in the United States and throughout the world. Commercial landings data included commercial handline and longline landings from the accumulated landings system from 1964 through 2011. For landings between 1880 and 1963, previously constructed historical landings were used. Total annual landings from the IFQ program for years 2007-2011 were used to reapportion 2007-2011 accumulated

landings system data across strata. Recreational landings data included the MRIP/Marine Recreational Fishery Statistics Survey (MRFSS) from 1981-2011, Southeast Headboat Survey for 1981-2011, and Texas Parks and Wildlife Department survey. For the years 2004-2011, MRIP landings are available. For earlier years, MRFSS data were calibrated to MRIP estimates using a standardized approach for calculating average weight that accounts for species, region, year, state, mode, wave, and area.

Standardized indices of relative abundance from both fishery dependent and independent data sources were included in the model. The fishery dependent indices came from the commercial handline fleet, recreational headboats, and recreational private/for-hire sectors. Fishery independent indices came from the Southeast Area Monitoring and Assessment Program (SEAMAP) bottom trawl survey, SEAMAP reef fish video survey, NMFS bottom longline survey, and the SEAMAP plankton survey.

Red snapper discards in the Gulf were calculated from data collected by the self-reported commercial logbook data and the NMFS Gulf reef fish observer program. In addition to these directed fisheries discards, estimates of red snapper bycatch from the commercial shrimp fleet were also generated.

The results of the SEDAR 31 assessment, including an assessment addendum that was prepared after a review of the SEDAR Assessment Panel Report by the SEDAR Review Panel, was presented to the SSC in May 2013. Under the base model, it was estimated that the red snapper stock has been overfished since the 1960s.

Current (2011) stock status was estimated relative to two possible proxies for F_{MSY}: $F_{SPR26\%}$ (i.e., the fishing mortality rate that would produce an equilibrium spawning potential ratio (SPR) of 26%) and F_{MAX}, which corresponded to $F_{SPR20.4\%}$ (i.e., the fishing mortality rate that would produce an equilibrium SPR 20.4%). A proxy of $F_{SPR26\%}$ was previously used as the overfishing and F_{MSY} proxy in SEDAR 7 and the SEDAR 7 update assessment in 2009. F_{MAX} was evaluated as an alternative proxy because at high spawner-recruit steepness values near 1.0, such as the value of 0.99 fixed in the red snapper assessment, F_{MAX} approximates the actual estimate of F_{MSY}. However, the actual estimate of F_{MSY} is sensitive to the parameters of the spawner-recruit relationship. The SSC did not have confidence in using the direct F_{MSY} estimate due to the fact that the spawner-recruit function is poorly estimated and data exist for a very limited range of potential spawning stock biomass (SSB) for the stock. In addition, the SSC felt that the equivalent SPR for F_{MAX} (20.4%) was inappropriately low for species with life history parameters similar to red snapper. The SSC felt that the $F_{SPR26\%}$ proxy, while still somewhat low for species with life history parameters similar to red snapper, was more realistic than the 20.4% SPR associated with $F_{MAX.}$ Furthermore, the $F_{SPR26\%}$ proxy is consistent with the current fishery management plan (FMP) and rebuilding plan for red snapper.

Spawning stock biomass was estimated to remain below both the minimum stock size threshold (MSST) and the spawning stock size associated with maximum sustainable yield ($SSB_{MSY\ proxy}$) using either proxy described above. Therefore, the SSC concluded that the stock remains overfished. With respect to overfishing, the current fishing mortality rate (geometric mean of

2009-2011) was estimated to be below both F_{MSY} proxies. Therefore, the SSC estimated the stock is not currently experiencing overfishing.

SEDAR 31 Update Assessment

In January 2015, NMFS presented an update of the SEDAR 31 assessment to the SSC (GMFMC 2015a). The methods used were the same as SEDAR 31, except for instances when the assessment team was responding to specific terms of reference from the Council. The SEDAR 31 red snapper base model was used with data updated through 2013. Recreational catch data was adjusted using methods from the September 2014 MRIP Calibration workshop and the rescaled MRIP landings were used. A selectivity block (2011-2013) was applied on all recreational fleets to accommodate recent changes in fishing behavior that indicated a shift in in selectivity to older (heavier) fish in recent years. The revised recreational landings were generally 10% to 20% higher than in SEDAR 31, but the revised discards also showed proportionately higher rates than in SEDAR 31. The results of the update assessment indicated that stock biomass estimates are continuing to increase in both the east and west Gulf, but remain below the management target of 26% SPR. Stock biomass estimates in the east showed a slight downtrend in the most recent years, which resulted from strong year-classes exiting the stock, as well as recent low recruitment estimates.

The combined east and west stock biomass estimates, while increasing, remain below the minimum stock size threshold, indicating that the stock remains in an overfished condition. However, estimated fishing mortality remains below the maximum fishing mortality threshold, indicating that overfishing is not occurring.

Definition of Overfishing

In January 2012, the Generic ACL/AM Amendment (GMFMC 2011b) became effective. One of the provisions in this amendment was to redefine overfishing. In years when there is a stock assessment, overfishing is defined as the fishing mortality rate exceeding the maximum fishing mortality threshold. In years when there is no stock assessment, overfishing is defined as the catch exceeding the OFL. The update assessment indicates that, as of the terminal year of the assessment data, 2013, overfishing was not occurring. In 2014, bot the recreationa and commercial sector landings remained below their respective quotas (Table 3.1.2). Therefore, total landings remained below the OFL in 2014, and overfishing was again not occurring in the red snapper stock. Note that, because the overfishing threshold is now re-evaluated each year instead of only in years when there is a stock assessment, this status could change on a year-to-year basis.

General Information on Reef Fish Species

The National Ocean Service collaborated with NMFS and the Council to develop distributions of reef fish (and other species) in the Gulf (SEA 1998). The National Ocean Service obtained fishery-independent data sets for the Gulf, including SEAMAP, and state trawl surveys. Data from the Estuarine Living Marine Resources Program contain information on the relative abundance of specific species (highly abundant, abundant, common, rare, not found, and no data)

for a series of estuaries, by five life stages (adult, spawning, egg, larvae, and juvenile) and month for five seasonal salinity zones (0-0.5, 0.5-5, 5-15, 15-25, and >25 parts per thousand). National Ocean Service staff analyzed these data to determine relative abundance of the mapped species by estuary, salinity zone, and month. For some species not in the Estuarine Living Marine Resources Program database, distribution was classified as only observed or not observed for adult, juvenile, and spawning stages.

In general, reef fish are widely distributed in the Gulf, occupying both pelagic and benthic habitats during their life cycle. Habitat types and life history stages are summarized in Table 3.3.1 and can be found in more detail in GMFMC (2004a). In general, both eggs and larval stages are planktonic. Larvae feed on zooplankton and phytoplankton. Exceptions to these generalizations include the gray triggerfish that lay their eggs in depressions in the sandy bottom, and gray snapper whose larvae are found around submerged aquatic vegetation (SAV). Juvenile and adult reef fish are typically demersal, and are usually associated with bottom topographies on the continental shelf (<328 feet; <100 m) which have high relief, i.e., coral reefs, artificial reefs, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings. However, several species are found over sand and soft-bottom substrates. Juvenile red snapper are common on mud bottoms in the northern Gulf, particularly from Texas to Alabama. Also, some juvenile snappers (e.g. mutton, gray, red, dog, lane, and yellowtail snappers) and groupers (e.g. goliath grouper, red, gag, and yellowfin groupers) have been documented in inshore seagrass beds, mangrove estuaries, lagoons, and larger bay systems (GMFMC 1981). More detail on hard bottom substrate and coral can be found in the FMP for Corals and Coral Reefs (GMFMC and SAFMC 1982).

Table 3.3.1. Summary of habitat utilization by life history stage for species in the Reef Fish FMP.

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Red Snapper	Pelagic	Pelagic	Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Reefs	Sand/ shell bottoms
Queen Snapper	Pelagic	Pelagic	Unknown	Unknown	Hard bottoms	
Mutton Snapper	Reefs	Reefs	Mangroves, Reefs, SAV, Emergent marshes	Mangroves, Reefs, SAV, Emergent marshes	Reefs, SAV	Shoals/ Banks, Shelf edge/slope
Blackfin Snapper	Pelagic		Hard bottoms	Hard bottoms	Hard bottoms, Shelf edge/slope	Hard bottoms, Shelf edge/slope
Cubera Snapper	Pelagic		Mangroves, Emergent marshes, SAV	Mangroves, Emergent marshes, SAV	Mangroves, Reefs	Reefs
Gray Snapper	Pelagic, Reefs	Pelagic, Reefs	Mangroves, Emergent marshes, Seagrasses	Mangroves, Emergent marshes, SAV	Emergent marshes, Hard bottoms, Reefs, Sand/ shell bottoms, Soft bottoms	
Lane Snapper	Pelagic		Mangroves, Reefs, Sand/ shell bottoms, SAV, Soft bottoms	Mangroves, Reefs, Sand/ shell bottoms, SAV, Soft bottoms	Reefs, Sand/ shell bottoms, Shoals/ Banks	Shelf edge/slope
Silk Snapper	Unknown	Unknown	Unknown	Unknown	Shelf edge	
Yellowtail Snapper	Pelagic		Mangroves, SAV, Soft bottoms	Reefs	Hard bottoms, Reefs, Shoals/ Banks	
Wenchman	Pelagic	Pelagic			Hard bottoms, Shelf edge/slope	Shelf edge/slope
Vermilion Snapper	Pelagic		Hard bottoms, Reefs	Hard bottoms, Reefs	Hard bottoms, Reefs	

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Gray Triggerfish	Reefs	Drift algae, *Sargassum*	Drift algae, *Sargassum*	Drift algae, Reefs, *Sargassum*	Reefs, Sand/ shell bottoms	Reefs, Sand/ shell bottoms
Greater Amberjack	Pelagic	Pelagic	Drift algae	Drift algae	Pelagic, Reefs	Pelagic
Lesser Amberjack			Drift algae	Drift algae	Hard bottoms	Hard bottoms
Almaco Jack	Pelagic		Drift algae	Drift algae	Pelagic	Pelagic
Banded Rudderfish		Pelagic	Drift algae	Drift algae	Pelagic	Pelagic
Hogfish			SAV	SAV	Hard bottoms, Reefs	Reefs
Blueline Tilefish	Pelagic	Pelagic			Hard bottoms, Sand/ shell bottoms, Shelf edge/slope, Soft bottoms	
Tilefish (golden)	Pelagic, Shelf edge/ Slope	Pelagic	Hard bottoms, Shelf edge/slope, Soft bottoms	Hard bottoms, Shelf edge/slope, Soft bottoms	Hard bottoms, Shelf edge/slope, Soft bottoms	
Goldface Tilefish	Unknown					
Speckled Hind	Pelagic	Pelagic			Hard bottoms, Reefs	Shelf edge/slope
Yellowedge Grouper	Pelagic	Pelagic		Hard bottoms	Hard bottoms	
Atlantic Goliath Grouper	Pelagic	Pelagic	Mangroves, Reefs, SAV	Hard bottoms, Mangroves, Reefs, SAV	Hard bottoms, Shoals/ Banks, Reefs	Reefs, Hard bottoms
Red Grouper	Pelagic	Pelagic	Hard bottoms, Reefs, SAV	Hard bottoms, Reefs	Hard bottoms, Reefs	

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Warsaw Grouper	Pelagic	Pelagic		Reefs	Hard bottoms, Shelf edge/slope	
Snowy Grouper	Pelagic	Pelagic	Reefs	Reefs	Hard bottoms, Reefs, Shelf edge/slope	
Black Grouper	Pelagic	Pelagic	SAV	Hard bottoms, Reefs	Hard bottoms, Mangroves, Reefs	
Yellowmouth Grouper	Pelagic	Pelagic	Mangroves	Mangroves, Reefs	Hard bottoms, Reefs	
Gag	Pelagic	Pelagic	SAV	Hard bottoms, Reefs, SAV	Hard bottoms, Reefs	
Scamp	Pelagic	Pelagic	Hard bottoms, Mangroves, Reefs	Hard bottoms, Mangroves, Reefs	Hard bottoms, Reefs	Reefs, Shelf edge/slope
Yellowfin Grouper			SAV	Hard bottoms, SAV	Hard bottoms, Reefs	Hard bottoms

Source: Adapted from Table 3.2.7 in the final draft of the EIS from the Generic EFH Amendment (GMFMC 2004a) and consolidated in this document.

Status of Reef Fish Stocks

The Reef Fish FMP currently encompasses 31 species (Table 3.3.2). Eleven other species were removed from the FMP in 2012 through the Generic ACL/AM Amendment (GMFMC 2011b). Stock assessments and stock assessment reviews have been conducted for 13 species and can be found on the Council (www.gulfcouncil.org) and SEDAR (www.sefsc.noaa.gov/sedar) websites. The assessed species are:

- Red Snapper (SEDAR 7 2005; SEDAR 7 Update 2009; SEDAR 31 2013; SEDAR 31 Update 2015)
- Vermilion Snapper (Porch and Cass-Calay 2001; SEDAR 9 2006a; SEDAR 9 Update 2011a)
- Yellowtail Snapper (Muller et al. 2003; SEDAR 3 2003; O'Hop et al. 2012)
- Mutton Snapper (SEDAR 15A 2008; SEDAR 15A Update 2015)
- Gray Triggerfish (Valle et al. 2001; SEDAR 9 2006b; SEDAR 9 Update 2011b)
- Greater Amberjack (Turner et al. 2000; SEDAR 9 2006c; SEDAR 9 Update 2010; SEDAR 33a 2014)
- Hogfish (Ault et al. 2003; SEDAR 6 2004a; SEDAR 37 2013)
- Red Grouper (NMFS 2002; SEDAR 12 2007; SEDAR 12 Update 2009)
- Gag (Turner et al. 2001; SEDAR 10 2006; SEDAR 10 Update 2009; SEDAR 33b 2014)
- Black Grouper (SEDAR 19 2010)
- Yellowedge Grouper (Cass-Calay and Bahnick 2002; SEDAR 22 2011a)
- Tilefish (Golden) (SEDAR 22 2011b)
- Atlantic Goliath Grouper (Porch et al. 2003; SEDAR 6 2004b; SEDAR 23 2011)

The NMFS Office of Sustainable Fisheries updates its Status of U.S. Fisheries Report to Congress on a quarterly basis utilizing the most current stock assessment information. The most recent update can be found at: (http://www.nmfs.noaa.gov/sfa/fisheries_eco/status_of_fisheries/). The status of both assessed and unassessed stocks as of the writing of this report is shown in Table 3.3.2.

Table 3.3.2. Species of the Reef Fish FMP grouped by family.

Common Name	Scientific Name	Stock Status
Family Balistidae – Triggerfishes		
Gray Triggerfish	*Balistes capriscus*	Overfished, no overfishing
Family Carangidae – Jacks		
Greater Amberjack	*Seriola dumerili*	Overfished, no overfishing
Lesser Amberjack	*Seriola fasciata*	Unknown
Almaco Jack	*Seriola rivoliana*	Unknown
Banded Rudderfish	*Seriola zonata*	Unknown
Family Labridae - Wrasses		
Hogfish	*Lachnolaimus maximus*	Unknown
Family Malacanthidae - Tilefishes		
Tilefish (Golden)	*Lopholatilus chamaeleonticeps*	Not overfished, no overfishing
Blueline Tilefish	*Caulolatilus microps*	Unknown
Goldface Tilefish	*Caulolatilus chrysops*	Unknown
Family Serranidae - Groupers		
Gag	*Mycteroperca microlepis*	Overfished, no overfishing
Red Grouper	*Epinephelus morio*	Not overfished, no overfishing
Scamp	*Mycteroperca phenax*	Unknown
Black Grouper	*Mycteroperca bonaci*	Not overfished, no overfishing
Yellowedge Grouper	**Hyporthodus flavolimbatus*	Not overfished, no overfishing
Snowy Grouper	**Hyporthodus niveatus*	Unknown
Speckled Hind	*Epinephelus drummondhayi*	Unknown
Yellowmouth Grouper	*Mycteroperca interstitialis*	Unknown
Yellowfin Grouper	*Mycteroperca venenosa*	Unknown
Warsaw Grouper	**Hyporthodus nigritus*	Unknown
**Atlantic Goliath Grouper	*Epinephelus itajara*	Unknown
Family Lutjanidae - Snappers		
Queen Snapper	*Etelis oculatus*	Unknown
Mutton Snapper	*Lutjanus analis*	Not overfished, no overfishing
Blackfin Snapper	*Lutjanus buccanella*	Unknown
Red Snapper	*Lutjanus campechanus*	Overfished, no overfishing
Cubera Snapper	*Lutjanus cyanopterus*	Unknown
Gray Snapper	*Lutjanus griseus*	Unknown
Lane Snapper	*Lutjanus synagris*	Unknown
Silk Snapper	*Lutjanus vivanus*	Unknown
Yellowtail Snapper	*Ocyurus chrysurus*	Not overfished, no overfishing
Vermilion Snapper	*Rhomboplites aurorubens*	Not overfished, no overfishing
Wenchman	*Pristipomoides aquilonaris*	Unknown

Notes: * In 2013 the genus for yellowedge grouper, snowy grouper, and warsaw grouper was changed by the American Fisheries Society from *Epinephelus* to *Hyporthodus* (American Fisheries Society 2013).

**Atlantic goliath grouper is a protected grouper and benchmarks do not reflect appropriate stock dynamics. In 2013 the common name was changed from goliath grouper to Atlantic goliath grouper by the American Fisheries Society to differentiate from the Pacific goliath grouper, a newly named species (American Fisheries Society 2013).

Protected Species

There are 29 different species of marine mammals that may occur in the Gulf. All 29 species are protected under the Marine Mammal Protection Act and seven are also listed as endangered under the Endangered Species Act (ESA) (i.e., sperm, sei, fin, blue, humpback, and North Atlantic right whales and the West Indian manatee). Other species protected under the ESA occurring in the Gulf include five sea turtle species (Kemp's ridley, loggerhead, green, leatherback, and hawksbill); two fish species (Gulf sturgeon and smalltooth sawfish), and two coral species (elkhorn coral and staghorn coral). Information on the distribution, biology, and abundance of these protected species in the Gulf is included in the final EIS to the Generic EFH Amendment (GMFMC 2004a) and the February 2005, October 2009, and September 2011 ESA biological opinions on the reef fish fishery (NMFS 2005; NMFS 2009; NMFS 2011a). Marine Mammal Stock Assessment Reports and additional information are also available on the NMFS Office of Protected Species website: http://www.nmfs.noaa.gov/pr/species/.

The Gulf reef fish fishery is classified in the Marine Mammal Protection Act 2013 List of Fisheries as a Category III fishery (78 FR 53336, August 29, 2013). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to 1% of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. Dolphins are the only species documented as interacting with these fisheries. Bottlenose dolphins prey upon on the bait, catch, and/or released discards of fish from the reef fish fishery. They are also a common predator around reef fish vessels, feeding on the discards.

All five species of sea turtles are adversely affected by the Gulf reef fish fishery. Incidental captures are relatively infrequent, but occur in all commercial and recreational hook-and-line and longline components of the reef fish fishery. Captured sea turtles can be released alive or can be found dead upon retrieval of the gear as a result of forced submergence. Sea turtles released alive may later succumb to injuries sustained at the time of capture or from exacerbated trauma from fishing hooks or lines that were ingested, entangled, or otherwise still attached when they were released. Sea turtle release gear and handling protocols are required in the commercial and for-hire reef fish fisheries to minimize post-release mortality.

Smalltooth sawfish are also affected by the Gulf reef fish fishery, but to a much lesser extent. Smalltooth sawfish primarily occur in the Gulf off peninsular Florida. Incidental captures in the commercial and recreational hook-and-line components of the reef fish fishery are rare events, with only eight smalltooth sawfish estimated to be incidentally caught annually, and none are expected to result in mortality (NMFS 2005). Fishermen in this fishery are required to follow smalltooth sawfish safe handling guidelines. The long, toothed rostrum of the smalltooth sawfish causes this species to be particularly vulnerable to entanglement in fishing gear.

On September 30, 2011, the Protected Resources Division released a biological opinion, which concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback) or smalltooth sawfish (NMFS 2011a). An incidental take statement was issued specifying the

amount and extent of anticipated take, along with reasonable and prudent measures and associated terms and conditions deemed necessary and appropriate to minimize the impact of these takes. The Council addressed measures to reduce take in the reef fish fishery's longline component in Amendment 31 (GMFMC 2009). Other listed species and designated critical habitat in the Gulf were determined not likely to be adversely affected.

On December 7, 2012, NMFS published a proposed rule to list 66 coral species under the ESA and reclassify *Acropora* from threatened to endangered (77 FR 73220). In a memo dated February 13, 2013, NMFS determined the reef fish fishery was not likely to adversely affect *Acropora* because of where the fishery operates, the types of gear used in the fishery, and that other regulations protect *Acropora* where they are most likely to occur. None of the new information regarding population level concerns would affect those determinations.

Deepwater Horizon MC252 Oil Spill

On April 20, 2010 an explosion occurred on the Deepwater Horizon MC252 oil rig approximately 36 nautical miles (41 statute miles) off the Louisiana coast. Two days later the rig sank. An uncontrolled oil leak from the damaged well continued for 87 days until the well was successfully capped by British Petroleum on July 15, 2010. The Deepwater Horizon MC252 oil spill affected at least one-third of the Gulf area from western Louisiana east to the Florida Panhandle and south to the Campeche Bank in Mexico (Figure 3.3.1).

As reported by the National Oceanic and Atmospheric Administration Office of Response and Restoration (NOAA 2010), the oil from the Deepwater Horizon MC252 spill is relatively high in alkanes, which can readily be used by microorganisms as a food source. As a result, the oil from this spill is likely to biodegrade more readily than crude oil in general. The Deepwater Horizon MC252 oil is also relatively much lower in polyaromatic hydrocarbons. Polyaromatic hydrocarbons are highly toxic chemicals that tend to persist in the environment for long periods of time, especially if the spilled oil penetrates into the substrate on beaches or shorelines. Like all crude oils, MC252 oil contains volatile organic compounds (VOCs) such as benzene, toluene, and xylene. Some VOCs are acutely toxic but because they evaporate readily, they are generally a concern only when oil is fresh.[7]

In addition to the crude oil, 1.4 million gallons of the dispersant, Corexit 9500A®, was applied to the ocean surface and an additional 770,000 gallons of dispersant was pumped to the mile-deep well head (National Commission 2010). No large-scale applications of dispersants in deep water had been conducted until the Deepwater Horizon MC252 oil spill. Thus, no data exist on the environmental fate of dispersants in deep water. However, a study found that, while Corexit 9500A® and oil are similar in their toxicity, when Corexit 9500A® and oil were mixed in lab tests, toxicity to microscopic rotifers increased up to 52-fold (Rico-Martínez et al. 2013). This suggests that the toxicity of the oil and dispersant combined may be greater than anticipated.

Oil could exacerbate development of the hypoxic "dead" zone in the Gulf as could higher than normal input of water from the Mississippi River drainage. For example, oil on the surface of the water could restrict the normal process of atmospheric oxygen mixing into and replenishing

[7] Source: http://sero.nmfs.noaa.gov/sf/deepwater_horizon/OilCharacteristics.pdf

oxygen concentrations in the water column. In addition, microbes in the water that break down oil and dispersant also consume oxygen; this could lead to further oxygen depletion.

Changes have occurred in the amount and distribution of fishing effort in the Gulf in response to the oil spill. This has made the analysis of the number of days needed for the recreational sector to fill its quota more complex and uncertain, and will make the requirement to allow the recreational sector to harvest its quota of red snapper while not exceeding the quota particularly challenging. Nevertheless, substantial portions of the red snapper population are found in the northwestern and western Gulf (western Louisiana and Texas) and an increasing population of red snapper is developing off the west Florida continental shelf. Thus, spawning by this segment of the stock may not be impacted, which would mitigate the overall impact of a failed spawn by that portion of the stock located in oil-affected areas.

As a result of the Deepwater Horizon MC252 spill, a consultation pursuant to ESA Section 7(a)(2) was reinitiated. As discussed above, on September 30, 2011, the Protected Resources Division released a biological opinion, which after analyzing best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC252 oil release event in the northern Gulf), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011a).

For additional information on the Deepwater Horizon MC252 oil spill and associated closures, see: http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm.

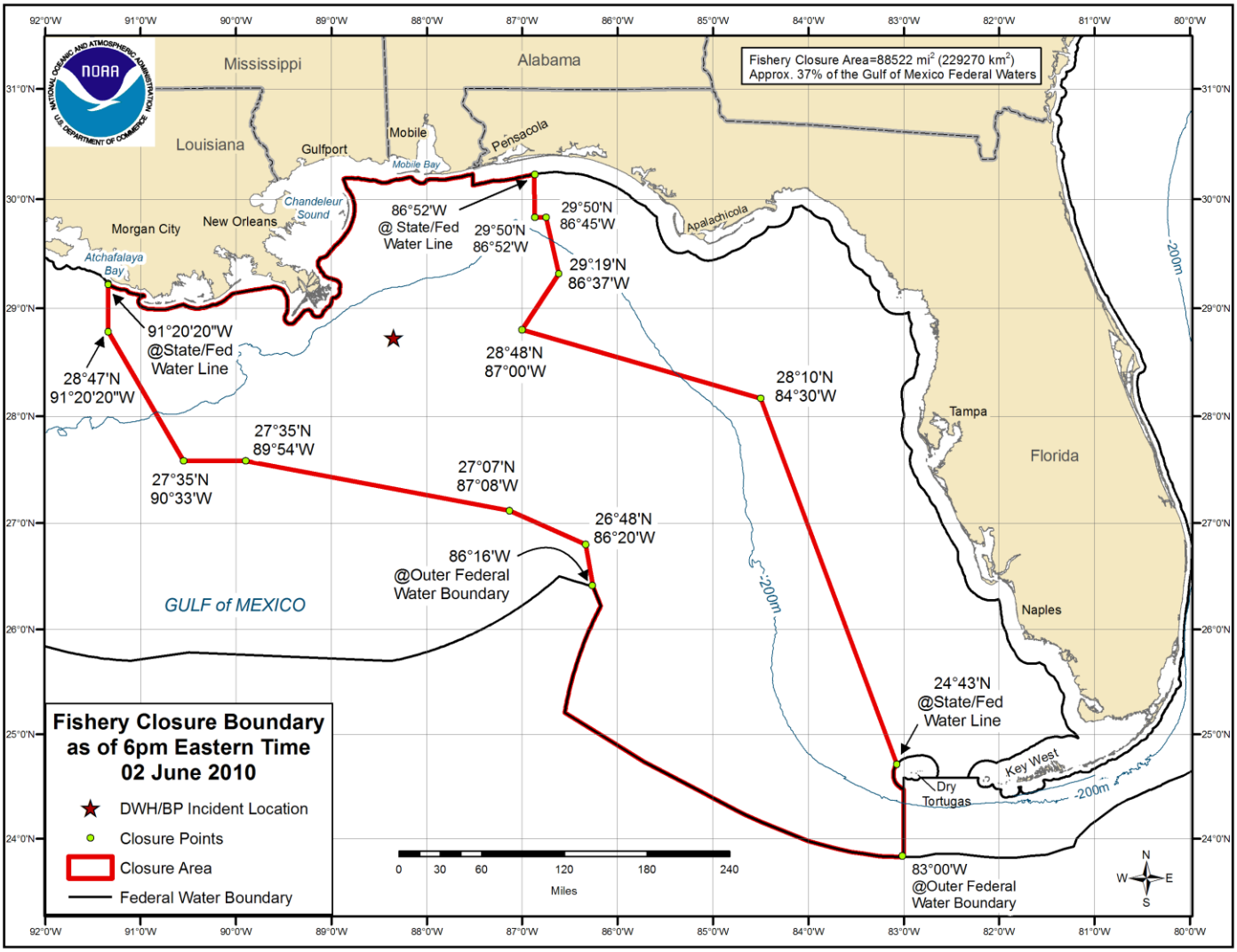

Figure 3.3.1. Fishery closure at the height of the Deepwater Horizon MC252 oil spill.

3.4 Description of the Economic Environment

3.4.1 Commercial Sector

A description of the commercial sector is provided in GMFMC (2013) and is incorporated herein by reference. Because this proposed amendment would only change management of the recreational sector, an update of the information on the commercial sector provided in GMFMC (2013) is not provided.

3.4.2 Recreational Sector

Angler Effort

Recreational effort derived from the Marine Recreational Information Program (MRIP) database can be characterized in terms of the number of trips as follows:

- Target effort – The number of individual angler trips, regardless of duration, where the intercepted angler indicated that the species or a species in the species group was targeted as either the first or second primary target for the trip. The species did not have to be caught.
- Catch effort – The number of individual angler trips, regardless of duration and target intent, where the individual species or a species in the species group was caught. The fish did not have to be kept.
- Total recreational trips – The total estimated number of recreational trips in the Gulf, regardless of target intent or catch success.

Other measures of effort are possible, such as directed trips (the number of individual angler trips that either targeted or caught a particular species), among other measures. Estimates of the number of red snapper target trips and catch trips for the shore, charter, and private/rental boat modes in the Gulf for 2011-2014 are provided in Table 3.4.2.1 and Table 3.4.2.2. Estimates of red snapper target effort for additional years, and other measures of directed effort, are available at http://www.st.nmfs.noaa.gov/recreational-fisheries/access-data/run-a-data-query/queries/index.

Table 3.4.2.1. Number of red snapper recreational target trips, by state[1] and mode, 2011-2014.

	Alabama	West Florida	Louisiana	Mississippi	Total
	Charter Mode				
2011	19,010	29,642	1,424	0	50,076
2012	16,609	24,653	7,204	74	48,539
2013	23,638	32,689	7,191	38	63,556
2014	9,050	7,358	[2]	0	nc
Average	17,077	23,586	5,273[3]	28	45,964
	Private/Rental Mode				
2011	116,886	113,021	19,900	16,790	266,597
2012	72,030	136,594	43,547	13,515	265,687
2013	222,245	461,349	24,691	21,586	729,871
2014	56,918	165,498	[2]	7,555	nc
Average	117,020	219,116	29,379[3]	14,862	380,377
	All Modes				
2011	135,896	142,663	21,324	16,790	316,673
2012	88,640	161,247	50,751	13,589	314,227
2013	245,883	494,038	31,882	21,624	793,427
2014	65,968	172,856	[2]	7,555	nc
Average	134,097	242,702	34,652[3]	14,890	426,341

[1]Texas information unavailable.
[2]The MRIP survey was not conducted in Louisiana in 2014.
[3]Average for 2011-2013.
nc – not computed because of the absence of Louisiana data.
Source: MRIP database, NMFS, SERO.
Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.
Note: There were no target trips recorded from the shore mode.

Table 3.4.2.2. Number of red snapper recreational catch trips, by state[1] and mode, 2011-2014.

	Alabama	West Florida	Louisiana	Mississippi	Total
	Charter Mode				
2011	43,550	101,500	3,066	221	148,336
2012	25,252	105,385	10,501	74	141,211
2013	52,331	107,466	12,321	38	172,157
2014	36,340	66,559	[2]	0	nc
Average	39,368	95,228	8,629[3]	83	143,308
	Private/Rental Mode				
2011	130,500	203,567	31,957	6,169	372,193
2012	83,783	282,332	51,377	13,515	431,007
2013	227,889	537,469	55,679	29,250	850,287
2014	110,593	233,265	[2]	10,254	nc
Average	138,191	314,158	46,338[3]	14,797	513,484
	All Modes				
2011	174,050	305,067	35,023	6,390	520,530
2012	109,035	387,717	61,878	13,589	572,219
2013	280,221	644,935	68,000	29,288	1,022,444
2014	146,933	299,824	[2]	10,254	nc
Average	177,559	409,386	54,967[3]	14,880	656,792

[1]Texas information unavailable.
[2]The MRIP survey was not conducted in Louisiana in 2014.
[3]Average for 2011-2013.
nc – not computed because of the absence of Louisiana data.
Source: MRIP database, NMFS, SERO.
Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.
Note: There were no catch trips recorded from the shore mode.

Similar analysis of recreational effort is not possible for the headboat mode because headboat data are not collected at the angler level. Headboat angler effort is calculated as angler days, which are a standardized count of trips that result from the combination of partial-day, full-day, and multiple-day trips. Unlike the situation for charter vessels, the estimates of headboat angler days include just trips on federally permitted vessels. The stationary "fishing for demersal (bottom-dwelling) species" nature of headboat fishing, as opposed to trolling, suggests that most, if not all, headboat trips and, hence, angler days, are demersal or reef fish trips by intent. The distribution of headboat effort (angler days) by geographic area is presented in Table 3.4.2.3. For purposes of data collection, the headboat data collection program divides the Gulf into several areas.

Table 3.4.2.3. Gulf headboat angler days, by state, 2011–2014.

	Angler Days				
	West Florida	**Florida/Alabama[1]**	**Mississippi/Louisiana[2]**	**Texas**	**Total**
2011	79,722	77,303	3,657	47,284	207,966
2012	84,205	77,770	3,680	51,776	217,431
2013	94,752	80,048	3,406	55,749	233,955
2014	102,841	88,524	3,257	51,231	245,853
Average	90,380	80,911	3,500	51,510	226,301

Source: (SRHS.
West Florida = Florida from the Dry Tortugas through the Florida Middle Grounds, Florida/Alabama = northwest Florida and Alabama.
[1]For 2013, SRHS data was reported separately for NW Florida and Alabama, but has been combined here for consistency with previous years.
[2]Mississippi and Louisiana are combined for confidentiality purposes.

Permits

The for-hire sector is comprised of charter vessels and headboats (party boats). Although charter vessels tend to be smaller, on average, than headboats, the key distinction between the two types of operations is how the fee is determined. On a charter boat trip, the fee charged is for the entire vessel, regardless of how many passengers are carried, whereas the fee charged for a headboat trip is paid per individual angler.

A federal for-hire vessel permit has been required for both types of vessels for reef fish since 1996 and is a limited access permit. On May 6, 2015, there were 1,320 valid (non-expired) or renewable Gulf Charter/Headboat Reef Fish permits, including historical captain permits. A renewable permit is an expired permit that may not be actively fished, but is renewable for up to one year after expiration. Although the for-hire permit application collects information on the primary method of operation, the permit itself does not identify the permitted vessel as either a headboat or a charter vessel and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the NMFS Southeast Region Headboat Survey (SRHS). Participation in the SRHS is based on determination by the Southeast Fishery Science Center (SEFSC) that the vessel primarily operates as a headboat. As of May 6, 2015, 69 Gulf headboats were registered in the SRHS (K. Fitzpatrick, NMFS SEFSC, pers. comm.).

Information on Gulf charter boat and headboat operating characteristics is included in Savolainen et al. (2012) and is incorporated herein by reference.

There are no specific federal permitting requirements for recreational anglers to fish for or harvest reef fish. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. For the for-hire sector, customers are authorized to fish under the charter or headboat vessel license and are not required to hold

their own fishing licenses. As a result, it is not possible to identify with available data how many individual anglers would be expected to be affected by this proposed action.

Economic Value

Economic value can be measured in the form of consumer surplus (CS) per additional red snapper kept on a trip for anglers (the amount of money that an angler would be willing to pay for a fish in excess of the cost to harvest the fish). The estimated value of the CS per fish for a second red snapper kept on a trip is approximately $79.72 (Carter and Liese 2012; values updated to 2013 dollars[8]).

With regards to for-hire businesses, economic value can be measured by producer surplus (PS) per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of the PS per for-hire passenger trip are not available. Instead, net operating revenue (NOR), which is the return used to pay all labor wages, returns to capital, and owner profits, is used as a proxy for PS. The estimated NOR value is $151 (2013 dollars) per charter angler trip (Liese and Carter 2012). The estimated NOR value per headboat angler trip is $52 (2013 dollars) (C. Liese, NMFS SEFSC, pers. comm.). Estimates of NOR per red snapper target trip are not available.

Business Activity

The desire for recreational fishing generates economic activity as consumers spend their income on various goods and services needed for recreational fishing. This spurs economic activity in the region where recreational fishing occurs. It should be clearly noted that, in the absence of the opportunity to fish, the income would presumably be spent on other goods and services and these expenditures would similarly generate economic activity in the region where the expenditure occurs. As such, the analysis below represents a distributional analysis only.

Estimates of the business activity (economic impacts) associated with recreational angling for red snapper were derived using average impact coefficients for recreational angling for all species, as derived from an add-on survey to the Marine Recreational Fisheries Statistics Survey (MRFSS) to collect economic expenditure information, as described and utilized in NMFS (2011b). Estimates of the average expenditures by recreational anglers are also provided in NMFS (2011b) and are incorporated herein by reference.

Recreational fishing generates business activity (economic impacts). Business activity for the recreational sector is characterized in the form of full-time equivalent jobs, output (sales) impacts (gross business sales), and value-added impacts (difference between the value of goods and the cost of materials or supplies). Estimates of the average red snapper target effort (2011-2014) and associated business activity (2013 dollars) are provided in Table 3.4.2.5. West Florida experienced the highest level of business activity associated with recreational red snapper fishing for all the Gulf States[9], followed by Alabama.

[8] Converted to 2013 dollars using the 2013 annual Consumer Price Index (CPI) for all US urban consumers provided by the Bureau of Labor and Statistics (BLS).
[9] Excludes Texas for which target effort data is unavailable.

The estimates provided in Table 3.4.2.5 only apply at the state-level. These numbers are not additive across the region. Addition of the state-level estimates to produce a regional (or national total) could either under- or over-estimate the actual amount of total business activity because of the complex relationship between different jurisdictions and the expenditure/impact multipliers. Neither regional nor national estimates are available at this time.

Estimates of the business activity associated with headboat effort are not available. Headboat vessels are not covered in the MRFSS/MRIP so, in addition to the absence of estimates of target effort, estimation of the appropriate business activity coefficients for headboat effort has not been conducted.

Table 3.4.2.5. Summary of red snapper target trips (2011-2014 average) and associated business activity (2013 dollars). The output, value added, and jobs impact estimates are not additive across states.

	Alabama	West Florida	Louisiana	Mississippi	Texas
	Private/Rental Mode				
Target Trips	117,020	219,116	29,379	14,862	*
Output Impact	$6,324,091	$11,848,997	$2,220,463	$523,061	*
Value Added Impact	$3,422,393	$6,709,550	$1,067,020	$266,046	*
Jobs	68	102	17	5	*
	Charter Mode				
Target Trips	17,077	23,586	5,273	28	*
Output Impact	$10,913,013	$17,296,265	$2,550,132	$11,340	*
Value Added Impact	$7,468,284	$11,563,482	$1,753,524	$7,988	*
Jobs	106	152	20	0	*
	All Modes				
Target Trips	134,097	242,702	34,652	14,890	*
Output Impact	$17,237,104	$29,145,261	$4,770,595	$534,401	*
Value Added Impact	$10,890,677	$18,273,032	$2,820,543	$274,034	*
Jobs	174	254	37	5	*

*Because target information is unavailable, associated business activity cannot be calculated.
Note: There were no target trips recorded from the shore mode.
Source: effort data from the MRIP, economic impact results calculated by NMFS SERO using the model developed for NMFS (2011b).

3.5 Description of the Social Environment

A description of the social environment for the commercial and recreational sectors' harvest of red snapper is provided in GMFMC (2013a) and is incorporated herein by reference. Because this proposed amendment would only affect management of the recreational sector, a summary of the information provided in GMFMC (2013a) is included for the recreational sector only.

Red snapper is harvested recreationally in all five Gulf States. The proportion of total recreational landings by state for the years 1986 through 2012 is provided in Table 2.3.1. Landings by state are not constant; the proportion of the quota represented by each state varies from year to year. Across time, the proportion of landings made up by the eastern Gulf States (Alabama and western Florida) has increased compared to the western Gulf States (Texas and Louisiana), as the rebuilding plan has proceeded.

Red snapper landings for the recreational sector are not available at the community level, making it difficult to identify communities as dependent on recreational fishing for red snapper. Data reflecting commercial landings of red snapper may or may not reflect areas of importance for recreational fishing of red snapper. It cannot be assumed that the proportion of commercial red snapper landings among other species in a community would be similar to its proportion among recreational landings within the same community because of sector differences in fishing practices and preferences. Thus, in addition to communities with the greatest commercial red snapper landings, the referenced analysis identifies communities with the greatest recreational fishing engagement, based on numbers of: 1) federal for-hire permits, 2) vessels designated recreational by owner address, and 3) vessels designated recreational by homeport, plus availability of recreational fishing infrastructure. The 20 Gulf communities to score highest for recreational fishing engagement based on the described analysis are listed in Table 3.4.1. Because the analysis used discrete geo-political boundaries, Panama City and Panama City Beach had separate values for the associated variables. Calculated independently, each still ranked high enough to appear in the top 20 list suggesting a greater importance for recreational fishing in that region.

Comparing the communities of recreational importance (Table 3.5.1) and those with greater commercial landings and IFQ shareholders (see Figure 3.4.2 and Table 3.4.2 in GMFMC 2013a), five communities overlap: Destin, Panama City, Pensacola, and Apalachicola, Florida and Galveston, Texas. Social effects resulting from actions taken in this plan amendment are likely to be greatest in these communities.

Table 3.5.1. Top ranking Gulf communities based on recreational fishing engagement and reliance, in descending order.

Community	County	State
Destin	Okaloosa	FL
Orange Beach	Baldwin	AL
Panama City	Bay	FL
Port Aransas	Nueces	TX
Pensacola	Escambia	FL
Panama City Beach	Bay	FL
Naples	Collier	FL
St. Petersburg	Pinellas	FL
Freeport	Brazoria	TX
Biloxi	Harrison	MS
Galveston	Galveston	TX
Clearwater	Pinellas	FL
Fort Myers Beach	Lee	FL
Sarasota	Sarasota	FL
Tarpon Springs	Pinellas	FL
Dauphin Island	Mobile	AL
Apalachicola	Franklin	FL
Carrabelle	Franklin	FL
Port St. Joe	Gulf	FL
Marco Island	Collier	FL

Source: NMFS Southeast Regional Office permit office 2008, MRIP site survey 2010.

For additional information pertaining to the social environment for the harvest of red snapper, the reader is directed to the following documents which are included here by reference. The February 2010 Regulatory Amendment (GMFMC 2010) includes a detailed discussion of the commercial communities within each state and county which are the most reliant on red snapper. This description focuses on the demographic character of each county in order to aid in understanding the dependence of a particular county on red snapper fishing. The January 2011 Regulatory Amendment (GMFMC 2011a) includes an update on the impacts of the Deepwater Horizon MC252 oil spill. The Gulf of Mexico 2011 Red Snapper IFQ Annual Report (NMFS 2012a) provides a detailed discussion of the commercial red snapper IFQ program.

3.5.1 Environmental Justice Considerations

Executive Order 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. The main focus of Executive Order 12898 is to consider "the disproportionately high and adverse human health or

environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories…" This executive order is generally referred to as environmental justice (EJ).

Recreational red snapper fishermen and associated businesses and communities along the coast may be affected by this proposed action. However, information on race, ethnicity, and income status for groups at the different participation levels (private anglers, for-hire captain, crew, and customers, and employees of recreational fishing businesses, etc.) is not available. Because this proposed action could be expected to affect fishermen and associated industries in numerous communities along the Gulf coast, census data (available at the county level, only) have been assessed to examine whether any coastal counties have poverty or minority rates that exceed the EJ thresholds.

The threshold for comparison that was used was 1.2 times the state average such that, if the value for the county was greater than or equal to 1.2 times the state average, then the county was considered an area of potential EJ concern (EPA 1999). Census data for the year 2010 was used. For Florida, the estimate of the minority (interpreted as non-white, including Hispanic) population was 39.5%, while 13.2% of the total population was estimated to be below the poverty line. These values translate in EJ thresholds of approximately 47.4% and 15.8%, respectively (Table 3.5.1). Based on the demographic information provided, no potential EJ concern is evident with regard to the percent of minorities for the counties of the west coast of Florida. With regard for poverty, Dixie (3.8%), Franklin (8%), Gulf (1.7%), Jefferson (4.6%), Levy (3.3%), and Taylor (7.1%) counties exceed the threshold by the percentage noted. No potential EJ concern is evident for the remaining counties which fall below the poverty and minority thresholds. The same method was applied to the remaining Gulf states.

Table 3.5.1.1. Each state's average proportion of minorities and population living in poverty, and the corresponding threshold used to consider an area of potential EJ concern.

	Minorities		Poverty	
State	% Population	EJ Threshold	% Population	EJ Threshold
FL	39.5	47.4	13.2	15.8
AL	31.5	37.8	16.8	20.2
MS	41.2	49.4	21.4	25.7
LA	38.2	45.8	18.4	22.1
TX	52.3	62.7	16.8	20.1

Source: Census Bureau 2010.

In Alabama, Mobile was the only county to exceed the minority threshold (by 1.7%). Neither of Alabama's coastal counties exceeded the poverty threshold for potential EJ concern. No coastal county in Mississippi exceeded either threshold. In Louisiana, Orleans Parish exceeded the minority threshold by 25% and the poverty threshold by 1.3%. Texas has several counties that exceeded the thresholds. In descending order of magnitude for exceeding the minority threshold were Willacy (26.3%), Cameron (24.7%), Kleberg (12.3%), Kenedy (9%), Nueces (2.8%), and

Harris (0.8%). Exceeding the poverty threshold were Kenedy (32.3%), Willacy (26.8%), Cameron (15.6%), Kleberg (6%), and Matagorda (1.8%). Willacy, Kenedy, Cameron, and Kleberg counties exceed both the minority and poverty thresholds and are the communities identified as most likely to be vulnerable to EJ concerns. Although this analysis identifies areas of potential EJ concern, it is not possible to determine whether the populations of potential EJ concern are involved in or dependent upon marine fishing activities.

Table 3.5.1 provides a summary of 20 communities considered substantially engaged in recreational fishing, generally. When compared with the referenced commercial fishing analysis, the following five communities (and respective county) are considered most likely to be affected: Destin (Okaloosa), Panama City (Bay), Pensacola (Escambia), and Apalachicola (Franklin), Florida and Galveston (Galveston), Texas. In comparing these communities with the preceding analysis identifying counties with potential EJ concerns, Apalachicola is the only community located within a county identified as having potential for EJ concerns. Apalachicola, located in Franklin County, exceeds the poverty threshold by 8% and would be the community most likely to experience unanticipated negative impacts.

The actions in this amendment are designed to implement a program for the regional management of recreational red snapper in which states or regions will be authorized to adapt certain management measures to regional conditions. It is assumed that the flexibility provided to adopt management measures most appropriate to a given region would result in optimal fishing opportunities for local anglers which in turn, would result in benefits to local communities. As will be addressed in the social effects analysis for each action, direct impacts are not expected to accrue to the social environment from most actions of this amendment, which establish the parameters of the program. However, indirect effects (positive or negative) may result due to 1) the specific regulations implemented in each region, 2) how any new regulations differ from existing regulations, and 3) the success or failure of cooperation under the new management regime. Disproportionate impacts to EJ populations are not expected to result from any of the actions in this amendment. Nevertheless, because the regulations to be implemented in each region remain unknown, the lack of impacts on EJ populations cannot be assumed.

3.6 Description of the Administrative Environment

3.6.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 *et seq.*), originally enacted in 1976 as the Fishery Conservation and Management Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within federal waters (the exclusive economic zone, or EEZ), an area extending 200 nautical miles from the seaward boundary of each of the coastal states, and authority over U.S. anadromous species and continental shelf resources that occur beyond federal waters.

Responsibility for federal fishery management is shared by the Secretary of Commerce (Secretary) and eight regional fishery management councils that represent the expertise and

interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for promulgating regulations to implement proposed plans and amendments after ensuring management measures are consistent with the Magnuson-Stevens Act and with other applicable laws summarized in Appendix B. In most cases, the Secretary has delegated this authority to NMFS.

The Council is responsible for fishery resources in federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The length of the Gulf coastline is approximately 1,631 miles. Florida has the longest coastline of 770 miles along its Gulf coast, followed by Louisiana (397 miles), Texas (361 miles), Alabama (53 miles), and Mississippi (44 miles).

The Council consists of seventeen voting members: 11 public members appointed by the Secretary; one each from the fishery agencies of Texas, Louisiana, Mississippi, Alabama, and Florida; and one from NMFS. The public is also involved in the fishery management process through participation on advisory panels and through Council meetings that, with few exceptions for discussing personnel matters, national security, or litigation briefings, are open to the public. The regulatory process is also in accordance with the Administrative Procedures Act, in the form of "notice and comment" rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

Regulations contained within FMPs are enforced through actions of the National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement, the United States Coast Guard, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the Magnuson-Stevens Act. These activities are being coordinated by the Council's Law Enforcement Advisory Panel and the Gulf States Marine Fisheries Commission's Law Enforcement Committee, which have developed a 5-year "Gulf of Mexico Cooperative Law Enforcement Strategic Plan – 2008-2012."

The red snapper stock in the Gulf is classified as overfished, but no longer undergoing overfishing. A rebuilding plan for red snapper was first implemented under Amendment 1 (GMFMC 1989), and has undergone several revisions. The current rebuilding plan was established in Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007), and calls for rebuilding the stock to a level capable of supporting maximum sustainable yield on a continuing basis by 2032. Periodic adjustments to the ACL and other management measures needed to affect rebuilding are implemented through amendments and framework actions.

3.6.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf

States exercises legislative and regulatory authority over their respective state's natural resources through discrete administrative units. Although each agency is the primary administrative body with respect to the states' natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources. A more detailed description of each state's primary regulatory agency for marine resources is provided in Amendment 22 (GMFMC 2004b).

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 Action 1 – Regional Management

4.1.1 Direct and Indirect Effects on the Physical Environment

Direct and indirect effects on the physical environment by the red snapper fishery have been discussed in detail in Reef Fish Amendment 22 and Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2004b and 2007). The primary gear used by the recreational sector is hook-and-line. Hook-and-line gear has the potential to snag and entangle bottom structures. Each individual set has a very small footprint and thus only a small potential for impact, but the cumulative impacts from recreational fishing could result in a large amount of gear being placed in the water, increasing the potential for impact. The line and weights used by this gear type also can cause abrasions (Barnette 2001). Additionally, vessels used for hook-and-line fishing often anchor, adding to the potential damage of the bottom at fishing locations. If hook-and-line gear is lost, long-term indirect effects to habitat may occur if marine life becomes entangled in the gear or the gear is overgrown with algae (Hamilton 2000; Barnette 2001). Circle hooks are required in the reef fish fishery. Because of the design of circle hooks, this gear is less likely to snag bottom habitat than other hook types.

Action 1 would have no direct effect on the physical environment. This action is administrative because it determines who has the authority to set red snapper regulations in federal waters. This action could indirectly affect the physical environment in different areas or times of the Gulf of Mexico (Gulf) by redirecting how and when fishing is conducted between different Gulf States or regions. **Alternative 1** (**no action**) would continue Gulf-wide federal management of red snapper. **Alternative 2** would delegate certain management measures to the States or regions. Depending on the deviation of the management measures from status quo, this may cause some spatial and temporal shift in the impacts to the physical environment. **Alternative 3** and **Alternative 4** would allow for regional management of the stock by the states or regions establishing conservation equivalency plans (CEP) to harvest their portion of the red snapper annual catch limit (ACL). The effects of the CEPs on the physical environment should remain similar to status quo regardless of the potential spatial and temporal shift of the impacts. Should different management regimes be implemented between states or regions under these alternatives, this could affect how fishing is conducted. For example, reducing the red snapper bag limit for one state or region could lead to a prolonged fishing season for that state or region. This could result in an increase in the number of red snapper fishing trips, and because red snapper is a part of a multispecies fishery, result in an overall increase in the amount of reef fish fishing, particularly if the ability to catch red snapper would encourage more reef fish fishermen to go fishing. Under this scenario, an increase in fishing in a particular area or over a particular time period would likely add to any adverse effects on the physical environment from fishing. Adverse effects to the physical environment would be lessened if resultant regional red snapper management measures developed by states (**Alternative 2**) or through CEPs (**Alternative 3** and **Alternative 4**) resulted in a reduction in fishing effort for red snapper or reef fish. **Alternative 5** would limit these effects to ten (**Option a**), five (**Option b**), three (**Option c**) or two (**Option d**) years, unless the Council decided to extend this program.

4.1.2 Direct and Indirect Effects on the Biological/Ecological Environment

Direct and indirect effects on the biological/ecological environment from the harvest of red snapper have been discussed in detail in Reef Fish Amendment 22 and Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2004b and 2007) as well as in the March 2013 Framework Action (GMFMC 2013a) and January 2015 Framework Action (GMFMC 2015b) and are incorporated here by reference. Little is known about the impacts of the 2010 Deepwater Horizon MC252 oil spill on the biological/ecological environments in the Gulf of Mexico. Potential impacts are discussed in the January 2011 Regulatory Amendment (GMFMC 2011a) and Reef Fish Amendment 40 (GMFMC 2014) and are also incorporated here by reference. Red snapper management actions that affect the biological/ecological environment mostly relate to the impacts of fishing on a species' population size, life history, and the role of the species within its habitat. Removal of fish from the population through fishing reduces the overall population size. Fishing gears have different selectivity patterns which refer to a fishing method's ability to target and capture organisms by size and species. Effects from different selectivities include the number of discards, mostly sublegal fish or fish caught during seasonal closures, and the mortality associated with releasing these fish.

Action 1 is not expected to have any direct effects on the biological/ecological environment because each state or region is expected to stay within their apportionment of the recreational red snapper ACL. This action is administrative because it determines the Council's preferred method for establishing who has the authority to set recreational red snapper regulations in federal waters. The recreational minimum size limit is established in Action 4. This action could indirectly affect the biological environment depending on the management measures (i.e., bag limits and seasons) put forth by each state or region. Unfortunately, without knowing the bag limits or seasons each state or region would submit in their proposals, the biological impacts from **Alternatives 2-4** are largely unknown compared to the no action alternative (**Alternative 1**). **Alternative 5** is completely administrative because it allows the Council the flexibility of establishing a sunset provision after 10 to 2 years (**Options a-d**) based on any of the methods listed in **Alternatives 2-4**. Biological effects from these alternatives are expected to be minimal because the regulations developed by each state or region would be limited to the regions apportionment of the recreational ACL and any overages would be accounted for under the accountability measures selected in Action 7. Additionally, NMFS and the Council will remain involved with data collection and scheduling stock assessments for red snapper just like other reef fish species through the Southeast Data, Assessment, and Review (SEDAR) process to ensure the red snapper stock continues to recover.

Stock assessments factor in the effects of management measures on stock status and by establishing different bag limits and seasons for the recreational sector across a state or region could in itself make the assessment process more burdensome. If a state or region's management measures are found to adversely affect the red snapper stock, the Council and NMFS can take action to minimize these affects. In addition, this stock is managed under ACLs and accountability measures (AMs) to minimize the risk of overfishing. Recent advances in ecosystem modeling (e.g., Ecopath; B. Mahmoudi, pers. comm.[10]) are providing some insights

[10] Dr. Behzad Mahmoudi, Florida Fish and Wildlife Research Institute, St. Petersburg, Florida

into the effects of populations in response to each other. However, the nature and magnitude of ecological effects such as competition and predator-prey interactions are difficult to predict with any accuracy and so the relationships among species in marine ecosystems are still poorly understood. As development of these models progress, the effects of management actions on the biological/ecological environment and the resulting ecosystem should be better understood.

4.1.3 Direct and Indirect Effects on the Economic Environment

Because the recreational red snapper management measures that might ultimately result from all of the actions and alternatives considered in this proposed amendment are unknown, the following assessment provides a qualitative discussion of the expected economic effects of this proposed action. Additionally, **Alternative 5** deals only with the duration of any regional management authorization adopted. As a result, **Alternative 5** is only comparable to **Alternative 1** and not **Alternative 2**, **Preferred Alternative 3**, or **Alternative 4**.

Most of the actions and alternatives considered in this proposed amendment address management considerations that progressively build upon previous actions. For example, Action 1 addresses the option to adopt a regional approach (through delegation or conservation equivalency) to the management of the recreational harvest of red snapper, Action 3 (Section 4.3) defines the regions, and Action 6 (Section 4.6) specifies the regional allocations. A decision to not adopt regional management (through delegation or conservation equivalency) would render the subsequent actions that define the scope and/or parameters of regional management moot. Alternatively, the effects of regionalization would be expected to vary by the scope of regionalization (number and/or geographic extent of regions) and the flexibility the regions would have to vary the red snapper recreational harvest regulations (season, bag, size limit, etc.). Thus, because these actions are progressively related, the net potential effects of one action will be determined by the decisions made for subsequent actions and vice versa. Although this interrelation does not prevent comparison of the expected effects of the alternatives considered under each action, the total effects that may ultimately accrue to an individual action and alternative are dependent on subsequent decisions for the other actions.

The underlying expectation for most of the actions considered in this proposed amendment is that the establishment of smaller "regulatory jurisdictions" (hereafter referred to as "regionalization") may be capable of providing the constituents (residents and tourists) in each region with red snapper recreational harvest regulations better suited to local preferences, resulting in increased benefits. These benefits may be economic, social, or biological. Discussion of the expected biological and social effects of each action is provided elsewhere in this document. The resultant management expected to collectively (from all states/regions) result from the proposed actions should be, at worst, biologically neutral compared to the status quo, i.e., the resultant management should not harm the biological status of the resource or compromise the biological progress and goals of current management. From this context, the following discussion of the expected economic effects of Action 1 and subsequent actions assumes that the biological status of the resource and progress toward the biological goals is not harmed by the proposed collective actions. As a result, discussion of the potential economic effects arising from any potential change in the biological status of red snapper will be limited to,

where appropriate for this and subsequent actions, discussion of the reasonableness of maintaining this assumption (no biological harm) under the alternatives considered.

Action 1 would establish a structure that would allow, but not require, regions to exercise limited control of the recreational harvest of red snapper in the EEZ. As a result, the adoption of any of the alternatives considered would allow certain subsequent actions or behaviors to occur, with associated economic consequences, but not require these actions or behaviors. For example, a region could be given authority to manage the harvest of red snapper by the recreational sector in the EEZ but choose not to exercise that authority. Because Action 1 would allow, but not require, subsequent actions, all of the economic effects discussed below would be indirect effects. Additionally, because the potential authorities to act are discretionary and not mandatory, failure to exercise the authority would be expected to result in the foregone net increase in any benefits associated with regional management. These benefits would also be foregone under **Alternative 1** if the Council elects, in the future, to not establish regionalized management measures more attuned to local preferences, for which current authority exists, if sufficient justification can be developed.

To reiterate, regionalization would be expected to result in management measures better tailored to localized preferences. The greater the regulatory control by these regions, assuming no biological harm to the red snapper resource, the greater the potential gain in economic benefits. Depending on the form of regionalization adopted, certain responsibilities and conditions would apply that may affect management costs, specifically the costs of regulatory development and implementation, monitoring, and enforcement. Delegation of authority (**Alternative 2**) would require each region to develop and undertake a process to identify and implement the management measures each region wishes to impose. This may result in increased management costs to the regions, depending on the extent that the regions established mirror current regulatory jurisdictions (for example, individual states versus multi-state "unions;" see Section 4.3) and the existence and/or complexity of the processes these regions undertake to develop and implement current regulatory authority (individual states have processes to establish regulations in their state waters, whereas multi-state "unions" do not and would have to develop such). Additional discussion on these potential costs is provided in Section 4.3.3. Regardless of the current processes in place and/or similarity of current regulatory jurisdictions with the regions that may be established by this proposed amendment, the increased management authority of the regions would be expected to increase the regulatory development costs of the affected regions (broader regulatory authority would be expected to result in a more time-consuming and costly management process). For NMFS and the Council, the regulatory burden, and associated costs, may decline, particularly if the regions are effective in restraining harvest to their allocation. If the regions are not effective in restraining harvest, then the total management cost could increase. It cannot be determined whether the total management cost under **Alternative 2** would be more than, less than, or equal to the cost under **Alternative 1**. This is also the case under **Preferred Alternative 3** and **Alternative 4**, which would allow the states to adopt conservation equivalency management instead of receiving delegated authority. Thus, it may not be unreasonable to project that the management cost might not change. However, regardless of the relationship of the management costs of **Preferred Alternative 3** and **Alternative 4** (and **Alternative 2**) relative to **Alternative 1**, **Alternative 4** would be expected to result in higher

management costs than **Preferred Alternative 3** because of the recurring costs associated with the technical review committee requirement.

It is noted that the management costs discussed in the previous paragraph refer only to the costs associated with the development of appropriate regulations. A key cost in the management of red snapper (and other species) is the cost of data collection and harvest monitoring. Regardless of the alternative chosen, the current NMFS data collection and harvest monitoring programs would continue. As a result, all costs associated with these programs will remain unchanged (except, as appropriate, as a result of programmatic budgetary changes to improve the general quality of these programs, budget appropriation changes, changes in methodology or technology, etc.). Although certain regulatory authority would be transferred to the specified regions under **Alternatives 2-4**, no region would be required to implement new data collection or harvest monitoring programs. Thus, duplication of data collection or harvest monitoring costs would not be required. However, the potential consequences of triggering the proposed AMs (see Action 7, Section 4.7.3) may motivate a region to take additional steps, beyond current monitoring procedures, to decrease the likelihood that they exceed their allocation. If enhanced monitoring occurs, the regional costs of harvest monitoring would increase. However, this would be a discretionary expense, and not a necessary outcome of this or other actions, and would only be expected to occur if the expected costs of enhanced monitoring were less than the expected costs of exceeding the allocation.

It is also noted that the importance of limiting harvest to the allocation cannot be overstated. Because of the popularity of red snapper as a target and harvest species, the suggested dependency of some/many businesses on red snapper at certain times of the year, and the business and community needs of regular patronage, the red snapper recreational sector of the reef fish fishery needs both stable harvest amounts and seasons year-to-year. This means that, to maximize benefits, a region cannot be expected to rely on or thrive under feast and famine cycles, harvesting large overruns one year, followed by payback the next. Although an overrun would be associated with increased business traffic and angler expenditures (and higher economic benefits because the harvest regulations should be better tailored to local constituent preferences), the subsequent payback would not be expected to satisfy constituent demand in the following year and may seriously jeopardize the ability of businesses to survive until the allocation "recovers" (paybacks end). Thus, large annual harvest fluctuations should be avoided.

Under the regionalization envisioned under **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4**, the red snapper management measures within each region would primarily be enforced dockside and not at sea (exceptions would be if a fisherman or vessel is in possession of fish when the EEZ is closed – either in part or in total, subject to the regulations established as a result of this proposed amendment (see Action 5) - to the harvest or possession of red snapper or is in possession of fish that are in violation of the bag or minimum size limits of all regions). As a result, federal enforcement costs associated with the recreational harvest of red snapper could decline. Although this would not be expected to reduce the total federal enforcement costs (assuming an enforcement budget not driven by the needs of individual species, sectors, or fisheries), it may be possible to shift enforcement effort to other purposes and increase the economic benefits associated with these tasks/needs. With respect to regional enforcement costs, the total enforcement costs may increase. On-the-water enforcement by state agents would be

expected to continue for other species/fisheries and marine activities. Thus, these costs may not change. However, shifting the enforcement of red snapper recreational harvest regulations to the docks may require an increased dockside presence and associated costs. As a result, overall, enforcement costs under **Alternative 2**, **Preferred Alternative 3**, or **Alternative 4** would be expected to be higher than the enforcement costs under **Alternative 1**. No differences in the enforcement costs between **Alternative 2**, **Preferred Alternative 3**, or **Alternative 4**, however, have been identified or would be expected.

Finally, discussion of the potential effects of the alternatives on the likelihood of the alternate management structures effectively restraining harvest to the regional allocations and preserving the biological goals deserves note. Increasing a regions' ability to tailor the red snapper recreational regulations to the preferences of local constituents would be expected to increase the difficulty of achieving these two goals (restraining harvest and preserving the biological goals) because demand for red snapper fishing would be expected to increase (because of the more favorable fishing regulations; although not a certainty, increasing the length of the season or increasing the bag limit would be expected to result in increased effort). As a result, the greater the regional flexibility, the greater the likelihood that targets will be exceeded, overages occur, paybacks be required, and economic benefits not maximized. Regions may attempt to have flexible seasonal end dates and expect to be capable of monitoring harvests in real-time, such that overages can be minimized. However, recreational data collection is expensive and harvest monitoring difficult. Further, the economic benefits of a "fixed" season would be reduced if the season is not allowed to occur as forecast (as a result of harvest monitoring leading to an earlier closure than forecast) and expectations that the season could be closed "early" increases the likelihood that trips are taken earlier in the season, thus causing deviation from historic effort (and harvest) patterns. This effect, combined with the potential general increase in demand because of the more favorable fishing regulations, increases the likelihood that the allocation would be exceeded. As a result, in practice, it may be more likely, at least in the short term, that fixed seasons are implemented, overages occur, and management in subsequent years continues to chase an elusive goal of limiting harvest to the allocation. If the resource is affected as this occurs, the adverse economic effects become compounded. Because the likelihood of these problems, and associated economic effects, would be expected to increase with greater regional flexibility, **Alternative 1** (current common management throughout the EEZ) would be expected to least likely precipitate these problems. The likelihood of these problems would be expected to be the same for **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4**.

Other than associated with the administrative and procedural costs of determining the adequacy of proposed conservation equivalent measures submitted by the regions, as previously discussed, **Preferred Alternative 3** and **Alternative 4** may be expected to vary in the expected economic effects if the associated alternative review processes vary in the likelihood that approved plans are adequate for controlling harvest, or that excessively conservative management plans (resulting in forgone benefits) are avoided. However, it is not obvious that these two alternatives will vary in these aspects. NMFS would make the ultimate determination of proposal adequacy under both alternatives, and would also be expected to be represented on the technical review committee required by **Alternative 4.** The access to expanded expertise through the use of a technical review committee **(Alternative 4)** could, in theory, result in more informed and better decisions. However, the expansion of participation in the review process could result in

gridlock, delay decision making and effective management, and result in associated economic costs. If review authority is limited to NMFS, as would occur under **Preferred Alternative 3**, and results in equivalent decisions made in a more timely and efficient manner, then the economic benefits of this alternative would be greater than those of **Alternative 4**.

Other than as thus far discussed, **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4** differ only in their ability to be adopted/implemented. The ability to be adopted affects the likelihood that the associated expected economic benefits can be realized. Specifically, **Alternative 2** (delegation) requires a three-quarters majority vote of the voting members of the Gulf Council members for adoption, whereas **Preferred Alternative 3** and **Alternative 4** only require a simple majority. This is a procedural difference, however, and not one with an economic dimension other than, as stated, how this difference affects the likelihood that the potential economic benefits of regional management will be realized. Thus, assuming that the management measures that would be implemented by the regions would be invariant to the regional management approach adopted (delegation vs. conservation equivalency), both **Preferred Alternative 3** and **Alternative 4** would be expected to have a higher likelihood of achieving increased economic benefits than **Alternative 2**.

Collectively, because the expected economic effects of the proposed alternatives cannot be quantified, it is difficult to conclude a ranking of the alternatives based on the expected economic effects, given the uncertainties discussed above. However, if the biological status and recovery of red snapper is protected and the regional allocation overages are minimized, then the more control given to the regions, the greater the expected economic benefits. Thus, from this perspective, **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4** would each be expected to result in higher economic benefits than **Alternative 1**. The differences between these alternatives may be marginal to non-existent. Each, although authorized under different structures (delegation vs. conservation equivalency) could result in the same red snapper management measures. As a result, if equally adoptable, each could result in the virtually the same economic effects, with the differences potentially reduced to higher procedural and administrative costs associated with the function of the technical review committee under **Alternative 4** compared to **Alternative 2** and **Preferred Alternative 3**. **Alternative 2**, however, may result in the least likelihood of the potential economic benefits of red snapper regulations better tailored to local conditions being realized because of the higher threshold for required for Council approval.

Alternative 5 would limit the duration of the regional management program. None of the proposed options would be expected to affect the expected economic effects of regional management. Although there are economic benefits of management stability (stability allows fishermen and businesses greater opportunity to plan their activities and maximize their benefits), none of the options would limit the ability of the Council to rescind or extend regional management authority beyond the specified period of the options. In actual practice, the only period of management stability that might occur (i.e., unchanged regional management authority) may be the period of time required to develop and implement a new plan amendment to change the appropriate authorities. This would be expected to take approximately two to three years, or less if interim regulation is justified. The only certain effect of the adoption of any sunset option, compared to **Alternative 1**, would be a requirement for Council action, with associated costs, to

terminate the sunset. These costs would be expected to be minor, however, because management of the recreational harvest of red snapper would be expected to continue to be a routine topic of Council discussion and deliberation under regional management.

4.1.4 Direct and Indirect Effects on the Social Environment

As discussed in the previous section, most of the actions and alternatives under consideration in this plan amendment relate to and build upon previous actions, meaning that the total effects that may ultimately result from this action will relate to and depend on decisions made in other actions. Furthermore, the actions and alternatives considered in this amendment establish the parameters for a regional management program, but the actual harvest restrictions that might ultimately result from each region's management plan are unknown. Thus, direct effects are not expected and indirect effects are difficult to predict. Given these uncertainties, the following assessment provides a qualitative discussion comparing the potential indirect effects of the alternatives.

In part, regional management is being considered as a management option because of private recreational anglers' frustrations with status quo recreational red snapper management. For example, the fishing season continues to be shortened despite the progress of the rebuilding plan. Additional impacts are not expected from maintaining red snapper management measures under status quo (**Alternative 1**). However, regional management is being considered in response to growing frustrations with status quo federal management and indirect benefits to the social environment are expected from enabling regional modification of management measures.

Nevertheless, potential indirect benefits from the ability to establish regionally preferred management measures for red snapper would be undermined, and potentially eliminated, if the adopted suite of management measures in a region results in the quota being caught faster. Structuring management measures to maximize preferred fishing times and practices would be expected to result in a region's quota being caught in a shorter amount of time, thus shortening the season and increasing the likelihood of an allocation overage if quota monitoring is either not implemented or is ineffective. Because a longer season is generally preferred by fishermen, there is a trade-off between providing greater flexibility to establish locally preferred management measures and a resulting increase in effort as the management measures provide anglers access under optimal conditions.

This action provides two broad approaches for the structure of the program: delegation (**Alternative 2**) or conservation equivalency measures (**Preferred Alternative 3** and **Alternative 4**). Under either approach, it is possible that the same suite of management measures could be adopted for the regions. The primary differences between the approaches concerns where management authority is held and the process for regions to establish their recreational management measures for red snapper. These differences would not be expected to result in direct or indirect social effects.

As a form of co-management, successful regional management requires cooperation and sharing of responsibilities between state and federal fisheries managers (Berkes 2009). Delegation (**Alternative 2)** would involve a devolution of some management controls from NMFS to the

regions. Devolving control of management to a more local scale is reported to provide social benefits by enabling greater participation and involvement of resource users, which in turn may lead to increased compliance (Jentoft et al. 1998). Under conservation equivalency measures (**Preferred Alternative 3** and **Alternative 4)**, authority for managing red snapper would remain with the Council and NMFS. Regions would provide their proposed management measures first to a review body, then to NMFS for final approval (**Alternative 4**), or directly to NMFS for review and approval (**Preferred Alternative 3**). Cooperation between state and federal level agencies would still be a critical component for successful regional management under the conservation equivalency model. Under all three alternatives, indirect effects would be expected to result from, and be in proportion to, the success or failure of the cooperation among managing institutions and the regions, which remains unknown at this time.

Establishing a fixed date when regional management would end (**Alternative 5**) has the potential to affect the social environment indirectly. If a sunset option is selected as preferred and regional management is functioning well, the Council would need to take action to continue the delegation. Such action must be timely to avoid disruptions to the program which could occur if the sunset date is triggered before the respective action is implemented. On the other hand, if the program is meeting the needs of some regions but not others, inclusion of a sunset provision could prompt the Council to review the program and consider modifications in a timely manner to address the concerns of the dissatisfied regions. If the program is not functioning well, the Council may need to end the program sooner than the selected sunset option provides for, requiring development of the appropriate document. This may be most likely under the longest option for the sunset (10 years, **Option a**). Establishing a sunset on regional management after shorter periods of time (2 years, **Option d**; 3 years, **Option c**; or 5 years, **Option b**) would allow less time for evaluating the success or failure of regional management. Whether or not an option is selected as preferred, the Council retains the ability to modify or end the program by developing the appropriate plan amendment.

4.1.5 Direct and Indirect Effects on the Administrative Environment

Various options for regional management programs are proposed through this action and could affect the administrative environment. **Alternative 1** would retain the status quo and not apply regional management; full authority for managing the red snapper recreational fishery would remain the responsibility of the Council and NMFS; there would be no changes to the administrative environment if the "no action" alternative is selected. **Alternatives 2-4** establish a regional management system where the states are granted certain management authority for red snapper recreational management, and **Alternative 5** could apply to any of **Alternatives 2-4**. As such, **Alternative 5** would affect the administrative environment for different periods of time from 2 to 10 years; those effects would increase/decrease as the number of years increase. **Alternatives 2-4** would be expected to reduce the administrative burden to the federal government and the Council, as limited management authority is transferred to specific regions. **Alternatives 2** and **4** would further reduce the federal administrative burden compared to **Preferred Alternative 3**. **Alternative 2** would put a greater administrative burden on the states to provide complete administrative support for their management of the red snapper recreational season, and **Alternative 4** would additionally put additional administrative burden on a committee designated outside the federal system. However, both would reduce federal

administrative burden of implementing management measures for the red snapper recreational fishing efforts. **Preferred Alternative 3** could potentially increase the federal administrative burden because NMFS would need to review and approve each region's proposal, and negotiate with regions should the regions' proposals not be acceptable. However, this may or may not increase total administrative burden compared to the current federal management system. As noted, enforcement administrative burden is not likely to change; however, if it may be necessary to increase effort for enforcement due to the multifaceted regional regulations. It is possible this effort could shift from off-shore enforcement, as most enforcement would be dockside.

4.2 Action 2 –Regional Management and Sector Separation

4.2.1 Direct and Indirect Effects on the Physical Environment

Section 4.1.1 describes the effects from fishing on the physical environment and are not repeated here. This action to determine how sector separation would apply or not apply to regional management would have no direct effect on the physical environment. This action could indirectly affect the physical environment if setting the allocation results in an increase or decrease in the amount of fishing gear used to harvest red snapper. As stated in Amendment 40 (GMFMC 2014), the private angling component seems to be less efficient in harvesting red snapper than the for-hire component based on bag limit analyses reported in SERO (2012). The analysis indicated that charter vessels tend to catch slightly more red snapper on average than private vessels or headboats. Therefore, any increase in the proportion of the recreational quota caught by the private angler component would be expected to require more effort to catch fish compared to the for-hire component. This would increase the amount of interaction between fishing gear and the physical environment.

Alternative 1, no action, would not change the current fishing conditions. It would let the recreational sector's quota allocation of 42.3% to the federal for-hire component and 57.7% to the private angling component expire after the 2017 fishing year. If sector separation expires and the component sub-quotas go away, it is likely that the proportion of red snapper harvested by the private angling component will go up following the harvest trend prior to Amendment 40 (GMFMC 2014). Therefore, it is likely the amount of habitat-gear interactions would increase after 2017. **Alternatives 2 and 3** would maintain the recreational sector's quota allocation between the components, capping harvest (effort) by the components and continuing the benefits to the physical environment described in Amendment 40. **Alternative 4** would end the component sub-quotas implemented through Amendment 40 and allow regions to determine if separate management measures are needed between components. Because each region would allow the states to determine component management, it is difficult to ascertain how this alternative would affect component harvests, and thus fishing effort. Therefore, with respect to effects on the physical environment, **Alternatives 2 and 3** would be most beneficial to the physical environment by limiting the amount of fishing by the private angling component and **Alternative 1** would be the least beneficial because there would likely be a proportional increase in the private angling component harvest after Amendment 40's allocation expires. The effects of **Alternative 4** would be intermediate to the other alternatives and would be dependent on the degree regions limit red snapper fishing by the private angling component.

It should be noted that effects on the physical environment from this action regardless of the alternative would likely be minimal. Red snapper are part of the multispecies reef fish management unit. Therefore, even if red snapper are not available for harvest, fishermen would still continue to fish for other species and overall fishing effort would be minimally affected. In addition, recreational fishing for red snapper is controlled by a quota that should not be exceeded. Thus, there is a limit on the amount of directed fishing effort regardless of who harvests red snapper.

4.2.2 Direct and Indirect Effects on the Biological/Ecological Environment

Section 4.1.2 describes the effects from fishing on the biological/ecological environment and is not repeated here. This action to determine how sector separation would apply or not apply to regional management would have no direct effect and few indirect effects on the biological/ecological environment. Red snapper are part of the multispecies reef fish management unit. Even if red snapper are not available for harvest, fishermen would still continue to fish for other species and overall fishing effort would be minimally affected. Therefore, indirect effects from this action on other species and species' habitat (including protected species) are likely negligible. For red snapper, the most likely indirect effect on the stock from this action would be on discard mortality. Regulatory discards are fish that are caught, but not kept because they are too small, would put a fisherman over the bag limit, or are caught out of season. A certain percentage of these fish die and are called dead discards. The most recent red snapper stock assessment (SEDAR 31 2013) estimated dead discard rates for the recreational sector at 10%. However, the number of discards relative to the landed fish may differ between the private angling and federal for-hire components. For example, the relative number of landed fish between the charter boat and private angling components over the time period 1981-2011 was 45% to 55%, respectively (Data Workshop Report Figure 4.11.1 in SEDAR 31 2013). But the relative number of discards over the same time period was much lower for the charter boat component (31%) than the private angling component (69%) (Data Workshop Report Figure 4.11.4 in SEDAR 31 2013). Thus, the relative number of discarded fish compared to landed fish is less for charter boat fishing than for private angling[11].

Given the above, alternatives that would shift the proportion of recreationally harvested red snapper to the private angler component would likely increase the number of dead discards caught under the recreational quota. As mentioned in Section 4.2.1, **Alternatives 2 and 3** would continue the current recreational sector's quota allocation of 42.3% to the federal for-hire component and 57.7% to the private angling component that was implemented through Amendment 40 (GMFMC 2014). Therefore, the proportion of dead discards relative to the quota should remain constant. If the component allocations expire, as would occur under **Alternatives 1 (no action)** in 2017 **and Alternative 4** effective with the implementation of Amendment 39 rulemaking, then it is likely the proportion of dead discards relative to the quota will increase. This likelihood is based on trends noted in Amendment 40 (GMFMC) of an increasing proportion of the recreational harvest being caught by the private angling component. Thus, **Alternatives 1 and 4** would likely have a more adverse effect on the red snapper stock relative

[11] It should be noted that similar information was not available for headboat trips and so a similar comparison could not be made for this portion of the federal for-hire component.

to **Alternatives 2 and 3** because the number of red snapper dead discards is likely to increase. However, these effects would likely be minimal given that overall recreational red snapper fishing effort is limited by the recreational quota and that red snapper discards and associated discard mortality occur not only when red snapper fishing is open, but when the season is closed. During red snapper closures, fishermen targeting other reef fish species often catch red snapper as bycatch that cannot be landed.

4.2.3 Direct and Indirect Effects on the Economic Environment

Because the harvest restrictions that might ultimately result from all of the actions and alternatives considered in this proposed amendment are unknown, the following assessment provides a qualitative discussion of the expected economic effects of this proposed action. Portions of the discussion of the expected economic effects for Action 1 provided in Section 4.1.3 are relevant to the discussion of the economic effects expected to result from this action. Only some of the information provided in Section 4.1.3 is summarized in the following discussion and the reader is encouraged to read Section 4.1.3 for a full discussion of this information.

This proposed action would determine the components of the recreational sector that would be subject to regional management. Because this action would only establish a structural component of the management system that would be allowed under regional management, the resultant economic effects that would subsequently be expected to accrue to anglers, fishing or other businesses, and associated communities would be indirect economic effects of the proposed alternatives.

As previously discussed, the foundation of this proposed amendment is that regional control of the recreational harvest of red snapper would result in increased economic benefits because regional management can result in the implementation of harvest regulations that better match the preferences of local constituents. As discussed in Section 4.3.3, the establishment of more regions would be expected to result in greater economic benefits than the establishment of fewer regions because of the increased opportunity for regulatory localization. Extending this determination, the broader the opportunity for localized management, the closer a region can tailor management to the preferences of their constituents, and the more economic benefits can be increased. Embedded in this conclusion, however, is the assumption, as previously stated for the other actions, that the resultant regulations meet the objectives of the FMP, which include, but are not limited to, limiting harvest to the allocation and not harming the resource or compromising resource recovery.

In the case of the current action, the "broader the opportunity" relates to the two recreational angler sectors that harvest red snapper, as established by Amendment 40, the for-hire component and the private angler component. **Alternative 1**, **Alternative 2,** and **Alternative 3** would continue the component (sector) separation of these two angler groups, whereas **Alternative 4** would end the separation. The duration of the component separation may vary under **Alternative 1** compared to **Alternative 2** and **Alternative 3;** the separation is scheduled to sunset in three years under Amendment 40 (though the sunset could be lifted through future action), while the sunset would be eliminated and separation would continue until ended by

subsequent council action under **Alternative 2** and **Alternative 3**. Continuing separation longer may result in more economic benefits from both the longer time period and the possibility that economically favorable management measures might not be adopted under a shorter time horizon (e.g., a state or region may be reluctant to implement measures that cannot be retained in subsequent years due to the sunset of sector separation). Ending sector separation would not eliminate the ability of a state or region to manage the two components differently; however, the benefits of localization may be more difficult to achieve in the absence of component quotas, which may be difficult to establish at the state or regional level. Key to this discussion is the determination in Amendment 40 that, over all, sector separation is expected to result in a an increase in economic benefits due to the enhanced ability to better tailor management measures to the component needs and improved harvest monitoring capability. Thus, maintaining this separation, as would occur under **Alternative 1**, **Alternative 2**, and **Alternative 3** would be expected to result in more economic benefits than ending separation, as would occur under **Alternative 4**.

Alternative 3 would be expected to result in greater economic benefits than **Alternative 2** because **Alternative 3** would allow greater flexibility at the regional level, because both components would be included, to tailor red snapper recreational management measures to local preferences. Additionally, the economic benefits of **Alternative 3** would be expected to increase the more states are included.

Alternative 4 would be expected to result in the least economic benefits of the four alternatives considered because the benefits of sector separation would not occur, or would be reduced. As discussed above, the individual states or regions would have the ability, under **Alternative 4**, to implement different management measures for the anglers in the separate portions of the recreational sector (private anglers versus charter and headboat anglers) under their jurisdiction. However, the full benefits that could occur under continued implementation of Amendment 40 might not be realized.

4.2.4 Direct and Indirect Effects on the Social Environment

Under regional management, ACLs and annual catch targets (ACTs) would be created from the recreational ACL for each region, resulting in regional ACLs and regional ACTs. Regional ACLs would reflect the proportion of the recreational sector ACL apportioned to each region, and the regional ACT would be calculated based on the established buffer. However, the recreational sector ACL is currently divided into component ACTs for the years 2015-2017 (**Alternative 1**). This action determines the components of the recreational sector that would be subject to regional management, given that the recreational sector ACL is currently divided between the private angling and federal for-hire components.

Because this action establishes a structural element for regional management, any resulting social effects would be indirect and relate to whether flexibility for managing toward local preferences is increased or decreased from current management (**Alternative 1**). A central assumption underlying this proposed amendment is that social benefits would increase by allowing greater regional flexibility in the recreational harvest of red snapper, because management measures could be established that better match the preferences of local

constituents. On the other hand, there may be a trade-off in terms of maximizing flexibility at the expense of an overly complex regulatory system. As the recreational sector ACL is divided into more pieces (regional and component ACLs), it may be more difficult to constrain landings within a greater number of smaller ACLs, increasing the likelihood of triggering a post-season overage adjustment. Negative social effects would be expected from triggering an overage adjustment as the amount of fish that may be caught the following year is reduced.

The recreational components (private angling and federal for-hire) are being managed separately for the first time in 2015. Although each component is assigned a portion of the recreational sector ACL and are fishing under separate season closure provisions, all other management measures including the bag limit and season start date in federal waters remain the same for both components. The Council has initiated development of separate management plans for the federal for-hire component and will review options papers for proposed charter vessel management (Amendment 41) and headboat management (Amendment 42) at its August meeting.

If **Alternative 1** is selected and regional management is approved for final action prior to the end of 2017, the recreational sector ACL would continue to be divided between the two components of the recreational sector through 2017. Although additional effects are not usually expected from taking no action (**Alternative 1**), it would be unclear how the regional ACLs would be calculated, and to which component(s) of the recreational sector regional management would apply.

Alternatives 2-4 would remove the sunset on the separate management of the components of the recreational sector so the Council may specify whether regional management would apply to the private angling component only (**Alternative 2**), to the recreational sector as a whole (**Alternative 4**), or to let each region decide to manage its private angling component only or both components (**Alternative 3**).

Alternative 2 would apply regional management to the private angling component only and each region would be able to establish harvest restrictions deemed to be more appropriate for its private anglers. If this alternative is selected, it is assumed the Council would continue developing management plans for the federal for-hire component. This alternative would be expected to balance flexibility with regulatory complexity, by allowing each region to establish preferred management measures for its private anglers, while management approaches most appropriate to federal for-hire vessels would be established through independent management plans.

Alternative 3 would allow each region to decide whether to manage its private angling component only, or to manage both the private angling and federal for-hire components separately within that region. This alternative would entail the greatest amount of both flexibility and regulatory complexity among the alternatives, as there could be up to 10 ACLs representing 10 different sets of management measures. For example, if each State is a separate region and each region establishes different seasons and bag limits for each component, flexibility would be maximized, but it may be difficult to enforce such a diverse regulatory landscape, and to constrain landings to within each ACL.

Alternative 4 would be expected to provide less flexibility than **Alternatives 2** and **3**, as each region would establish management measures that apply to all recreational anglers in that region. **Alternative 4** would also be expected to be the least complex from a regulatory perspective, as each region would manage its anglers under a single regional ACL.

4.2.5 Direct and Indirect Effects on the Administrative Environment

The application of regional management to the private angling and for-hire components is determined through this action. While the recent implementation of Reef Fish Amendment 40 divided the recreational sector into two components, a sunset provision will reunite the components in 2018 if the Council does not take further action. Intertwined with regional management, **Alternative 1** would apply to the separate components for 2015-2017, and then manage them as one sector after the sunset. The effect of **Alternative 1**, on the administrative environment would be minimal. **Alternative 2** would extend the separate management of the components beyond the sunset and apply the provisions of this amendment only to the private angling component. This would likely result in additional rulemaking to address the management of the for-hire component and negatively affect the administrative environment. **Alternative 3** and **Alternative 4** would shift the administrative burden to the regions to develop management measures or CEPs for both components; this may increase the administrative burden for reviewing the CEPs. The indirect effects from this action would occur in terms of 1) increasing regulatory complexity; 2) a shift in the regulatory burden from the federal to state level, and 3) impacts on enforcement. Indirect effects of would require monitoring of the recreational harvest, enforcement of the harvesting rules, and developing management measures to minimize the risk of harvests by the components of exceeding the recreational quota. However, regardless of which alternative is selected, the indirect effects from each alternative would likely be similar.

4.3 Action 3 – Establish Regions for Management

4.3.1 Direct and Indirect Effects on the Physical Environment

Direct and indirect effects on the physical environment resulting from the harvest of red snapper by the reef fish fishery have been discussed in detail in Reef Fish Amendment 22, Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2004b and 2007), and in the February 2010 Regulatory Amendment (GMFMC 2010). Section 4.1.1 describes the effects from fishing on the physical environment and are not repeated here.

Action 3 would have no direct effect on the physical environment. This action is administrative because it determines how the Gulf would be partitioned for management of red snapper in federal waters. Similar to Action 1, this action could indirectly affect the physical environment by allowing for spatial and temporal variation from status quo in management measures in different regions. Although the net effects from **Alternatives 2** or **3** (2 regions), **Alternative 4** (5 regions), or **Preferred Alternative 5** (up to 5 regions) might not be different from **Alternative 1** (**no action**), there are likely to be differences in effects off the waters in particular

regions, and these effects may change in time. If management measures that result from **Alternatives 2**, **3**, **4**, or **Preferred Alternative 5** allow fishing effort within a region to increase compared to **Alternative 1**, then there would likely be an increase in adverse effects to the physical environment (as described in Section 4.1.1). However, if selecting **Alternative 2**, **Alternative 4**, or **Preferred Alternative 5** reduce the amount of fishing effort in the regional waters from management measures in comparison to **Alternative 1**, then adverse effects from fishing on the physical environment should be reduced.

4.3.2 Direct and Indirect Effects on the Biological/Ecological Environment

Section 4.1.2 describes the effects from fishing on the biological/ecological environment and is not repeated here. Action 3 would have no direct effect on the biological/ecological environment. This action is mainly administrative because it determines the partitioning of the Gulf for management of the recreational component for harvest of red snapper in federal waters. Similar to Action 1, this action could indirectly affect the biological/ecological environment by allowing for different regional management measures. Although the net effects from **Alternative 2** or **3** (2 regions), **Alternative 4** (5 regions), or **Preferred Alternative 5** (up to 5 regions) might not be different from **Alternative 1** (**no action**), there are likely to be differences in effects off the waters in particular regions. If management measures that result from **Alternatives 2**, **3, 4**, or **Preferred Alternative 5** allow fishing within a region to increase compared to what would be allowed under **Alternative 1**, then there would likely be an increase in adverse effects to the biological/ecological environment (as described in Section 4.1.2). However, if selecting **Alternative 2**, **Alternative 4**, or **Preferred Alternative 5** reduce the amount of fishing effort in the regional waters from management measures in comparison to **Alternative 1**, then adverse effects from fishing on the biological/ecological environment should be reduced.

Similar to Action 1, it is difficult to compare the alternatives because information is either incomplete or unavailable for use in comparisons. To minimize the risk to the biological/ecological environment, NMFS has been working to better understand the biological/ecological environment so that management uncertainty derived from either of these regional management alternatives may be determined in the future. This includes conducting stock assessments under SEDAR that incorporate changes in management to assess the condition of managed stocks and well as supporting the development of ecosystem models to provide some insights into the cascading effects of populations in response to each other. In addition, red snapper and other managed stocks are managed under ACLs and AMs to reduce the risk of overfishing.

4.3.3 Direct and Indirect Effects on the Economic Environment

Because the harvest restrictions that might ultimately result from all of the actions and alternatives considered in this proposed amendment are unknown, the following assessment provides a qualitative discussion of the expected economic effects of this proposed action.

Portions of the discussion of the expected economic effects for Action 1 provided in section 4.1.3 are relevant to the discussion of the economic effects expected to result from this action.

Some of this information is summarized in the following discussion and the reader is encouraged to read Section 4.1.3 for the complete discussion. Similar to the discussion in Section 4.1.3, all the economic effects discussed below would be indirect effects because the proposed alternatives for this action would create a possible structure for management, but not require exercise of the associated authorities.

The primary conclusions from Section 4.1.3 relevant to the discussion of Action 3 are that economic benefits would be expected to increase under regionalization, but the costs associated with regulatory development (including implementation), harvest monitoring, and enforcement may increase as well. The economic benefits associated with the recreational harvest of red snapper would be expected to increase, because regions would have an increased ability to implement management measures preferred by their constituents. The expanded regulatory authority, however, may become complicated and increase the cost of the process of regulatory development and implementation. Attempts to reduce the likelihood of harvest overages could also increase monitoring costs, and dockside enforcement may increase enforcement costs. Overall, however, the increased economic benefits associated with better management measures would be expected to dominate potential increased management costs and result in a net increase in economic benefits.

With the conclusions provided in the previous paragraph as the baseline, the following discussion of the expected economic effects of the proposed alternatives evaluates the extent to which these benefits and costs would be expected to vary.

In general, the economic benefits of regulatory flexibility would be expected to increase as the opportunity for "localization" (locally tailored management) increases. This is concluded "in general" because it is possible to delegate authority at too diffuse a level, such that too many different management regimes are established. As an example, allowing community control over the recreational harvest of red snapper may create excessive confusion, conflict, and monitoring issues. However, because the proposed alternatives do not go below the state level, the issue of excessive localization is not expected to arise. Therefore, among the alternatives considered, the greater the regional authority, the greater the expected increase in economic benefits. From this perspective, **Alternative 4** (five regions) would be expected to result in the largest increase in economic benefits, followed by **Preferred Alternative 5** (five or fewer regions), **Alternative 2** and **Alternative 3** (two regions), and **Alternative 1** (one region). Although the state composition of each region would be different under **Alternative 2** and **Alternative 3**, each alternative would establish two regions. The economic effects of these two alternatives would be expected to be the same because no basis has been identified to support a conclusion that either state combination would be expected to be more or less capable of enacting the regulatory flexibility enabled by this proposed amendment. The possible overlaps between certain alternatives should be noted. For example, **Alternative 4** and **Preferred Alternative 5** would be expected to result in the same economic effects if **Preferred Alternative 5** results in independent state action (i.e., each state becomes a region). Similarly, **Preferred Alternative 5** and **Alternatives 2** and **3** would be expected to have the same economic effects if **Preferred Alternative 5** results in common co-action by the respective states and the creation of the respective two regions that would be established under **Alternative 2 or Alternative 3**. It is also noted that, the functional outcomes of **Alternatives 2-5** could be identical to those of

Alternative 1 if the regions decide not to exercise the authority established by Action 1 and these alternatives (accepting regional management authority would be discretionary and not obligatory).

Evaluations of the considerations of management costs (regulatory development, monitoring, and enforcement) are less straight-forward. Although increasing the number of regions could be argued to result in duplicative regulatory development costs, thereby suggesting that the fewer the regions, the lower the regulatory development costs, it may be the case that the more regions there are, the easier it may be to identify a uniformly accepted set of regulations. As a result, it may involve less time and money to develop five regional plans than fewer "unified" plans that require more deliberation to reach agreement. Nevertheless, it is indeterminate which arrangement would be more or less costly.

With respect to the cost of harvest monitoring, the conclusions are more straight-forward. It is noted that this discussion refers only to any enhanced harvest monitoring that may be implemented. As discussed in Section 4.1.3, the current recreational harvest data collection programs would continue regardless of any regionalization decision or regional decisions to enhance their harvest monitoring capacity. Because of the costs that would be required, a mandatory, universal, census accounting of all harvest by all marine recreational fishermen in the Gulf is unlikely to ever be implemented. Even the development of a program that imposed mandatory reporting by just red snapper fishermen may not be practical. Instead, or until mandatory reporting is required, some form of survey and sampling program will likely continue to be used (and be subject to modification as budgets change and/or technology advances). Absent structural or other reasons that might make the survey and sampling program used in one state or region unsuitable in others, monitoring costs would be lower the fewer the number of regions because of the elimination of duplicative components. As a result, the cost to independently monitor five separate regions would be expected to be the highest and the cost would be expected to decline as the number of regions is reduced. Thus, the ranking, from most cost to least, would be expected to be **Alternative 4,** followed by **Preferred Alternative 5**, **Alternative 2** and **Alternative 3**, and **Alternative 1**, noting the possible overlap of the potential number of separate regions under the different alternatives.

Finally, with respect to enforcement costs, because shore-side enforcement would be required at the state-level if a state becomes a separate region or joins with other states to become a region, the enforcement burden would not be expected to vary by the number of regions created. In a multi-state region, it would not be expected that common agents would or could be created who could enforce regulations in all states within their region. As a result, enforcement agents from each state would be responsible for dock-side enforcement within their state. Therefore, the resultant increase in state enforcement costs would be determined by the number of states that accepted regional authority and not the number of resultant regions. Federal enforcement costs associated with the red snapper recreational harvest, recalling the discussion in Section 4.1.3, would be inversely proportional to the number of states that accept regionalization. Assuming all states accept regionalization, increased state enforcement costs associated with dockside enforcement would be the highest and federal at-sea enforcement costs the lowest for **Alternative 4**, followed by **Preferred Alternative 5**, **Alternative 2** and **Alternative 3**, and **Alternative 1.**

Consistent with the discussion in Section 4.1.3, because regionalization would be expected to result in a net increase in economic benefits, despite the potential increased management costs, **Alternative 4** would be expected to result in the highest increase in net economic benefits, followed by **Preferred Alternative 5**, **Alternative 2** and **Alternative 3**, and **Alternative 1.**

4.3.4 Direct and Indirect Effects on the Social Environment

As noted previously, the management measures that may ultimately result from the actions and alternatives considered in this proposed amendment remain unknown. Because most of the actions and alternatives relate to and build upon previous actions, the total effects that may ultimately result from this action will relate to and depend on decisions made in other actions. Thus, direct effects are not expected and indirect effects are difficult to predict. Given these uncertainties, the following assessment provides a qualitative discussion comparing the potential indirect effects of the alternatives.

Currently, federal management measures for recreational red snapper fishing are implemented Gulf-wide, meaning the Gulf is managed as a single region (**Alternative 1**). Additional impacts are not expected to result from maintaining red snapper management as a single region (**Alternative 1**). However, regional management is being considered in response to growing frustrations with Gulf-wide recreational management that does not allow for regional differences in red snapper abundance and optimal fishing seasons. Thus, indirect benefits to the social environment are expected from increasing management flexibility provided by establishing regional management.

Alternatives 2-5 propose the establishment of regions for which some management measures may vary. Generally, establishing more regions (**Alternative 4** or **Preferred Alternative 5**) will enable greater flexibility at the local level than establishing fewer regions (**Alternatives 2** or **3**), which would require more agreement on shared management measures among the States sharing a region. Greater flexibility in the selection of management measures to provide optimal fishing opportunities to a region's constituents is expected to result in the greatest indirect social benefits.

Preferred Alternative 5 would allow each Gulf State to determine whether to be an independent region or to join with another adjacent State or States into a shared region. Although **Preferred Alternative 5** could result in the creation of up to five regions, if each State determines to be its own region, **Alternative 4** would be functionally equivalent to **Preferred Alternative 5.** In this case, any effects resulting from **Preferred Alternative 5** would be expected to be the same as **Alternative 4**. Likewise, if **Preferred Alternative 5** resulted in two regions, the impacts would be expected to be similar to those under **Alternatives 2** or **3**. Under **Alternatives 2, 4**, or **Preferred Alternative 3**, multiple regions, however defined, could adopt the same management measures for their region, making the impacts of these alternatives indiscernible to the social environment.

4.3.5 Direct and Indirect Effects on the Administrative Environment

Additional impacts are not expected from maintaining a single Gulf-wide region for recreational red snapper management (**Alternative 1**). Direct effects would not result from selecting the number of management regions **(Alternative 2**, **3, 4**, or **Preferred Alternative 5**), because the management measures that might ultimately result in the selected regions are not specified in this action and remain unknown. Rather, the resulting number of regions could result in indirect effects in terms of 1) increasing regulatory complexity or requiring greater intra-region cooperation; 2) a shift in the regulatory burden from the federal to state level, and 3) impacts on enforcement. This analysis provides a qualitative discussion of these potential effects to the administrative environment.

There may be a tradeoff in effects between creating more or fewer regions. Establishing more regions (**Alternative 4** or **Preferred Alternative 5**) could result in greater regulatory complexity due to involvement by more individual administrative units. On the other hand, selecting fewer regions (two under **Alternative 2** and **3**) would require greater cooperation among the states sharing a region. **Alternative 2** would also require the formation of a regional administrative entity to provide the venue for included states to agree on their shared set of management measures and harvest monitoring strategy.

Under regional management, there will be some transfer of the administrative burden from the federal level to the regional (state) level. However, if Action 1 preferred Alternative 3 or Alternative 4 were selected, then the burden on the federal administrative environment would be increased correlated with the number of regions pertaining to the review of CEPs. All alternatives (except no action) propose regional boundaries that fall along state boundary lines. Each state currently has a process for establishing fishing regulations in state waters which could be used for the administrative needs of the region's red snapper management program. It is not possible to predict the extent of the effects from the transfer of this administrative burden, as it remains unknown how each region may execute its administrative duties.

The creation of individual regions would be expected to increase the difficulty of at-sea enforcement if each region adopts different management measures. The creation of more regions could make it more difficult for at-sea law enforcement to determine the management measures governing a vessel's harvest compared with fewer regions (**Alternative 2** and **3**). Based on Council discussions, it is assumed that enforcement would primarily be dockside which could potentially mitigate some of these enforcement concerns.

Finally, while **Alternatives 2, 3,** and **4** specify the number of regions to be created, under **Preferred Alternative 5** there could be from two to five regions. Thus, it is not possible to compare the effects from this alternative with the other alternatives, as any effects would depend on the number of regions ultimately created if implemented.

4.4 Action 4 – Establish Minimum and/or Maximum Size Limits

4.4.1 Direct and Indirect Effects on the Physical Environment

Section 4.1.1 describes the effects from fishing on the physical environment and are not repeated here. No direct or indirect effects on the physical environment are expected to occur from alternatives in Action 4. In general direct effects on the physical environment occur when fishing gear and anchors interact with the substrate. Recreational fishing gear is expected to have minimal impact on the substrate and attached organisms; however, setting a large amount of gear over one area or continued anchoring on fragile substrate is expected to increase the potential for negative impacts to the physical environment (Hamilton 2000). **Alternative 1** (**no action**) would retain the current minimum size limit for the recreational harvest of red snapper and is not expected to result in any direct or indirect impacts. **Alternatives 2**, **4**, **5,** and **Preferred Alternative 3** provide a range of minimum size limits for red snapper. The gear types used by private anglers and anglers on for-hire vessels are the same for this size range of fish; thus, no additional impacts to the physical environment are expected.

4.4.2 Direct and Indirect Effects on the Biological/Ecological Environment

Action 4 would apply a uniform minimum size limit for the recreational sector across the Gulf, thereby making Southeast Data, Assessment, and Review (SEDAR) process easier since regional differences in minimum size limits are not being considered and thereby reducing uncertainty generated by accounting for multiple regional minimum size limits during estimation of selectivity patterns in the stock assessment process. Additionally, NMFS will continue data collection efforts, and the Council will continue to request stock assessments, to ensure the red snapper stock continues to recover from its "overfished" status. Therefore, Action 4 is expected to have minimal direct effects on the biological/ecological environment. This determination is further augmented by yield-per-recruit (YPR) and spawning potential ratio (SPR) analyses conducted by the Southeast Fisheries Science Center (SEFSC) in 2013 for the recreational sector. Minimum size limits from 13-18 inches TL are considered effective for managing red snapper because the YPR varies little between that size range. Spawning potential ratio was found to increase as minimum size limits are increased.[12] The Council is currently considering modifying the current 16-inch TL minimum size limit (**Alternative 1**) by decreasing the minimum size limit to 14 inches TL (**Alternative 2**) or 15 inches TL (**Preferred Alternative 3**) or increasing the minimum size limit to 17 inches TL (**Alternative 4**) or 18 inches TL (**Alternative 5**).

Recreational discard mortality of red snapper is currently estimated by eastern and western sub-region (SEDAR 31 2013). The assessment found a consistent, Gulf-wide trend among discard mortality data, where depth of capture and release mortality were positively correlated. Discard mortality for the recreational sector was estimated at 10% Gulf-wide (SEDAR 31 2013). However, the data workshop report noted that release mortality was related less to region and more on a combination of factors including, but not limited to, depth, thermal stress, venting versus non-venting, and handling time.

[12] http://gulfcouncil.org/docs/Presentations/Gulf%20Red%20Snapper%20Size%20Limit%20Analysis%20-%20Presentation.pdf

Increases in regulatory discards due to a modification in the minimum size limit for the recreational sector are a concern, and could have minimal direct effects on the biological/ecological environment. However, modifications in fishing behavior due to reducing (**Alternatives 2** and **3**) or increasing (**Alternatives 4** and **5**) the minimum size limit compared to the status quo (16 inches TL, **Alternative 1**) are largely unknown. Many recreational anglers target larger "trophy" red snapper, making high-grading a concern for any minimum size limits currently being considered. The results of the SEDAR 31 Update Assessment completed for red snapper in January of 2015 with new data through 2013 attempted to accommodate recent changes in recreational fishing behavior by adding a selectivity block from 2011-2013 for all recreational fleets. The results indicated that recreational fleets in both the eastern and western Gulf have shifted to landing older age classes and therefore heavier fish (SEDAR 31 Update 2015 Presentation[13]. These results suggest any minimum size limit modification the Council considers (**Alternatives 2-5**) compared to **Alternative 1** (no action) would likely have minimal effects on the biological/ecological environment. The Council requested an interim rule during the 1999 recreational red snapper fishing season that increased the minimum size limit from 15 to 18 inches TL (64 FR 30455). The Council requested this increase in the recreational minimum size limit to slow harvest and increase the fishing season length by 24 days. The interim rule was initially supported by fishermen; however, the Council received numerous complaints from fishermen after the season about releasing dead red snapper. Consequently, since that time the Council has not considered raising the red snapper minimum size limit above 18 inches TL (**Alternative 5**).

4.4.3 Direct and Indirect Effects on the Economic Environment

As discussed in section 2.4, the recreational minimum size limit for red snapper is 16 inches TL for the EEZ and all Gulf states except Texas, where the minimum size limit is 15 inches TL. This would continue under **Alternative 1**. At the federal level (EEZ), this minimum size was adopted to best meet the biological needs of the species, consistent with the rebuilding plan, and the economic and social needs of the associated user groups. The inconsistency between the federal limit and the Texas limit may have had, and would continue to have, some adverse effect on economic benefits associated with the resource if the inconsistency reduced progress toward achieving recovery of the stock. However, these effects may have been, and may be expected to continue to be, minor because of the small amount of red snapper harvested in Texas waters compared to that harvested elsewhere in the Gulf, assuming the allowance of smaller red snapper in state waters has not resulted in smaller fish also being harvested the EEZ. Otherwise, the inconsistency in the minimum size limits may have only resulted in angler confusion or frustration with the need to be aware of and comply with the different standards.

Changing the minimum size limit may affect the harvest rate and status of the red snapper stock. Allowing the harvest of smaller fish (**Alternative 2** and **Preferred Alternative 3**) would be expected to both increase the harvest rate (the increase in fish numbers attributable to a reduction in the minimum size limit would be expected to exceed the decrease in average weight per fish and result in a net increase in the total harvest rate) and increase the harvest of fish that may

[13] The presentation was made at the January 2015 SSC meeting: http://gulfcouncil.org/council_meetings/Briefing%20Materials/BB-01-2015/B%20-4%20SSC%20Summary.pdf

never spawn. As a result, total red snapper spawning could be reduced. Increasing the minimum size limit (**Alternative 4** and **Alternative 5**) would be expected to have the opposite effects, decreasing the number of fish harvested and allowing more fish to spawn before they are harvested, yet increasing the average weight per fish. However, the availability of larger fish would be likely be more limiting than the availability of smaller fish, so, although the average weight per fish would be expected to increase with a higher minimum size, overall the catch rate would likely decline.

Increasing the catch rate (**Alternative 2** and **Preferred Alternative 3**) would be expected to shorten the season, if monitoring or harvest projection methods are effective, or increase the likelihood the allocation is exceeded if quota monitoring is either not implemented or is ineffective. Decreasing the catch rate (**Alternative 4** and **Alternative 5**) would be expected to lengthen the season and possibly decrease the likelihood that the allocation is exceeded (it may be possible to more effectively monitor longer seasons than short "flash" seasons). Generally, because it is believed that long seasons are economically more beneficial than short seasons (longer seasons afford more flexibility to schedule trips, for example), they are preferred by anglers and associated businesses. Also, as discussed in Section 4.7.3, limiting harvest to the allocation would be expected to result in greater economic benefits than exceeding the allocation and triggering AMs. With respect to the benefits of protecting fish capable of spawning, increased protection, as would be expected to occur under **Alternative 4** and **Alternative 5,** would, within limits, be expected to produce greater economic benefits than decreased protection (**Alternative 2** and **Preferred Alternative 3**) because of potentially faster stock recovery and more stable recruitment. Finally, changing the size limit may result in stock effects by impacting the total fishing mortality (harvest mortality and bycatch mortality combined) independent of the effects of the total harvest or the harvest of fish capable of spawning. Specifically, increasing the minimum size limit (**Alternative 4** and **Alternative 5**) would be expected to result in increased releases and associated release mortality. Regardless of the alternative selected, because red snapper is a popular target species and total recreational effort is unrestricted, all allowable harvest limits would be expected to be met. As a result, increasing the amount of release mortality would be expected to increase the total red snapper mortality.

Each of these effects would be expected to increase or decrease as the proposed minimum size increases or decreases. For example, compared to **Alternative 1**, **Preferred Alternative 3** would be expected to result in more small fish being harvested, fewer fish surviving long enough to spawn, and a shorter season. These effects would be expected to increase under **Alternative 2**, which would allow the harvest of even smaller fish. Similar comparisons exist between **Alternative 4** and **Alternative 5** (i.e., as the minimum size limit is increased, more fish would be expected to be able to spawn but total mortality increased).

Despite these considerations and general determinations, it is not possible with available data to rank these alternatives according to most to least net economic benefits.

4.4.4 Direct and Indirect Effects on the Social Environment

During early discussions of regional management, Council members expressed interest in providing the maximum amount of flexibility to the regions to establish management measures. Maximum flexibility is assumed to correspond with positive social effects. Because a minimum size limit is part of the established suite of current management measures, the Council included the minimum size limit among the management measures which could be modified at the regional level. Following further discussions, however, the Council recognized that allowing different minimum size limits to be established by the regions would create problems for the red snapper stock assessment associated with the use of different regional recreational minimum size limits. Thus, it was determined that the Council would evaluate the federal minimum size limit in this action, and all regions must adopt the selected minimum size limit to satisfy the requirements of delegation or CEPs (Action 1). The minimum size limit selected will also be the minimum size limit in the federal default regulations.

Currently, the federal minimum size limit for red snapper is 16 inches TL (**Alternative 1**). No additional effects would be expected from retaining the federal minimum size limit, as fishing practices and behavior in federal waters would not be affected. However, Texas has a 15-inch TL minimum size limit for red snapper in its state waters, while the remaining four Gulf States have established a 16-inch TL minimum size limit, consistent with federal regulations. If **Alternative 1** is retained, as a region, Texas would need to adopt a 16-inch TL minimum size limit for its state waters, or would be ineligible to participate in regional management.

Alternative 2 and **Preferred Alternative 3** would reduce the minimum size limit to 14 inches TL and 15 inches TL, respectively. Reducing the minimum size limit would be expected to allow more legal size fish to be caught, as more individuals in the red snapper population are above the size limit. Given that smaller red snapper are more frequently encountered in state waters in certain areas of the Gulf, reducing the minimum size limit may allow red snapper to be more accessible to some anglers who fish closer to shore. However, in general, direct effects on fishing behavior and activity would be negligible from decreasing the minimum size limit (**Alternative 2** and **Preferred Alternative 3**), as anglers prefer and target larger fish, and there is no requirement to retain fish which are caught. Reducing the minimum size limit may result in an increase in dead discards from highgrading which has the potential for negative indirect effects if the rate of dead discards negatively affects the progress of the rebuilding plan. Because Texas already establishes a 15-inch minimum size limit (**Preferred Alternative 3**), this alternative would be less disruptive to the social environment, as it is a small change for four of the Gulf States, and Texas would not need to change its minimum size limit, compared with **Alternative 2**.

In recent years, the average size of a red snapper caught by a recreational angler has increased, demonstrating success in the rebuilding plan. Table 4.4.4.1 summarizes the average weight and length of red snapper caught in 2014 by anglers fishing from private vessels, charter vessels, and headboats. For all three modes, the average length of harvested red snapper are greater than either of the proposed increases to the minimum size limit of 17 inches TL (**Alternative 4**) and 18 inches TL (**Alternative 5**). Thus, increasing the size limit to either 17 inches TL or 18 inches TL would not be expected to affect the majority of anglers' fishing practice and behavior.

Anglers who fish closer to shore and are less likely to encounter larger red snapper would be the most likely to be affected by an increase in the minimum size limit.

Table 4.4.4.1. Average weight and estimated size of red snapper caught in 2014 by region (east-west) and mode.

	Private angling	Charter vessels	Headboats
Eastern Gulf	7.5 lbs 25-26 inches TL	8.5 lbs 26-27 inches TL	4.9 lbs 22-23 inches TL
Western Gulf	6.98 lbs 25-26 inches TL	10.0 lbs 28-29 inches TL	5.4 lbs 23-24 inches TL

Source: Red snapper total length to weight conversion from SEDAR 31.

4.4.5 Direct and Indirect Effects on the Administrative Environment

Retaining or modifying the minimum size limit does not change the effects on the administrative environment for any enforcement activities; enforcement groups must enforce whatever size limit is in effect. Depending on the alternatives selected in Actions 1 and 2, the burden on the federal government and the Council should be reduced under a regional management scenario under any of the alternatives, as control of the red snapper recreational fishing season would now be under the authority of a region. Size limits would affect season lengths, but the regions would be establishing the seasons. The only administrative burden on the federal government or Council would be if a region opts out of regional management and NMFS would have an increased administrative burden to evaluate the effects of the default regulations in regard to a recreational fishing season for red snapper for the defaulted region. Enforcement and federal management would be similar to, but reduced from status quo.

4.5 Action 5 – Boundaries in the Exclusive Economic Zone

4.5.1 Direct and Indirect Effects on the Physical Environment

Section 4.1.1 describes the effects from fishing on the physical environment and are not repeated here. In general direct effects on the physical environment occur when fishing gear and anchors interact with the substrate. **Alternative 1** (**no action**) would not allow regions to establish closed areas and is not expected to result in any direct or indirect impacts. However, **Preferred Alternative 2** would allow regions to establish closed areas. This could result in either positive or negative effects on the physical environment based on the geographic and temporal shift of fishing effort. If the fishing effort is confined to a smaller portion of the federal waters, then the adverse effects would be concentrated in that open area. In turn, it is likely to cause slight benefits to the physical environment in the closed areas. By limiting the temporal length of the closure (**Option 2a**) and the spatial area of the closure (**Option 2b**), the direct and indirect effects would be more evenly distributed than **Alternative 2**.

4.5.2 Direct and Indirect Effects on the Biological/Ecological Environment

Section 4.1.2 describes the effects from fishing on the biological/ecological environment and is not repeated here. This action considers allowing regions to establish closed areas in the adjacent federal waters. **Alternative 1 (no action)** is not likely to have direct or indirect effects on the biological/ecological environment.

Alternative 2 would allow regions to establish closed areas in adjacent federal waters. The spatial and temporal extent of the closures could have both benefits and adverse effects to the biological/ecological environment based on the shift in fishing effort. For example, assuming that Florida and Alabama are separate regions, if Florida establishes a closed area in the federal and state waters in the panhandle and the Alabama waters are still open, then it is reasonable to assume that the fishing effort may shift into the Alabama waters and concentrate the impacts on the biological/ecological environment. In addition, while the closed areas would restrict the harvest of red snapper, the most likely indirect effect on the stock from this action would be on discard mortality as anglers harvest other reef fish. During red snapper closures, fishermen targeting other reef fish species often catch red snapper as bycatch that cannot be landed. The temporal (**Option 2a)** and spatial (**Option 2b)** restrictions would decrease the shift of fishing effort and likely decrease the impact on the biological/ecological environment.

4.5.3 Direct and Indirect Effects on the Economic Environment

Because of the absence of sufficient data, details of the regional management measures that would be developed, specification of the closures that might be imposed, or the resultant fishing behavior and harvest rates that would develop under these conditions, none of the economic effects expected to occur under the proposed alternatives can be quantified. As a result, the following discussion is limited to a qualitative description of the expected economic effects of the alternatives for this proposed action.

Under **Alternative 1**, regions would not be able to close any portion of the EEZ in their region. As a result, the EEZ portion of any region would only close if the Gulf-wide recreational quota has been harvested (or has been projected to have been harvested), resulting in Gulf-wide closure of the EEZ to red snapper harvest, or a region is subject to default regulations (because the region has elected to not accept regional management, or whose management plan is either inconsistent with the delegation or conservation equivalency requirements) and the EEZ is closed under these default regulations.

Under **Alternative 1**, regions would only have the authority to close their state waters and prohibit red snapper landings. However, if the EEZ is open, a region could only prohibit all red snapper recreational landings if their regional quota has been harvested; if their quota has not been harvested, and the EEZ is open, red snapper legally harvested anywhere in the Gulf EEZ, including the portion that exists within the region, could still be landed in the region. If the regional quota is taken, resulting in the prohibition of landings in that region, red snapper could still be harvested in the EEZ portion of that region and landed in any neighboring region that remains open (i.e., has available quota). This would not affect the total amount of red snapper harvested by the Gulf recreational sector because total harvest would be quota-limited.

However, continued red snapper harvest in the EEZ portion of a region that has already landed its quota could result in localized resource depletion. Conversely, landing red snapper in different region than it was harvested would reduce harvest pressure in the region of landing. These effects – increased/decreased harvest pressure and associated possible depletion/improved stock – could result in associated negative and positive economic effects due to, for example, reduced (or enhanced) catch rates and fishing quality, longer (or shorter) open seasons, and increased (or decreased) fishing demand.

Available data does not support a conclusion that fishing and harvest by anglers in one region results in greater economic benefits than such by anglers in any other region. As a result, overall, assuming neutral Gulf-wide biological effects (because total harvest would not be expected to exceed the quotas and biological targets), the economic effects expected to occur under **Alternative 1** would only be distributional (any loss/gain to one region would be offset by a gain/loss to another), and no change in total net economic benefits would be expected. These effects, however, would not be expected to be uniformly distributed across all anglers or regions because of the non-uniform opportunity cross-regional effort transfer by anglers due to differences in geographic proximity. For example, if each state forms a separate region, it would be more practical for Mississippi fishermen to fish off Alabama than it would be for Texas anglers. Some areas are "better positioned" to attract anglers from multiple regions (e.g., Louisiana from portions of Texas, and all of Mississippi or Alabama; Alabama from Mississippi or portions of Florida; etc.), whereas the southern or mid-portions of Texas and Florida may primarily only attract anglers from other parts of their own state. Thus, neither the benefits, nor costs, of cross-regional fishing would be expected to be uniformly distributed across all anglers and regions in the Gulf.

The effects of partial or temporary closure of the regional portion of the EEZ (**Preferred Alternative 2**) would be expected to be less than those of total closure. As a result, the discussion of the effects of **Preferred Alternative 2** will follow the discussion of the effects of **Alternative 3**.

Under total regional EEZ closure (**Alternative 3**), anglers would not be able to harvest red snapper in the closed regional portion of the EEZ and land those red snapper in any region, regardless of the status of the regions' quota. The total (Gulf-wide) red snapper recreational harvest, and associated economic benefits, would not be affected because, as discussed under **Alternative 1**, total harvest would be quota limited. However, distributional economic effects would be expected to occur. Closing the EEZ to harvest would be expected to result in re-direction of effort to either state waters in the same region or, if the appropriate state permits/licenses are possessed, to the state or EEZ portions of neighboring regions. If the effort and harvest is redirected to the state waters of the region with the EEZ closure, because catch rates are generally lower in state waters than in the EEZ, a longer open season for that region may occur, which may be economically preferable despite the increased cost to harvest the same quantity of fish (lower catch rates require more effort, and therefore higher costs, to harvest the same quantity of fish). If the effort is redirected to neighboring regions, the season length in the region with the EEZ closure may be unaffected, but harvest costs still increase because it may be more expensive to fish in a neighboring region than in the EEZ in the region with the closure. Fishing in a neighboring region and landing the fish in ones' own region would shorten the

season in the landing region if the catch rates in the neighboring region are higher than in the EEZ of the region with the closure; however, if this were the case and the catch rate were a dominant factor in the fishing location decision, this effort would likely already be occuring in the neighboring region regardless of the own-region EEZ closure. Thus, in general, effort shift to a neighboring region in response to closure of the EEZ would not be expected to shorten the season in the region with the EEZ closure.

Effort shift may have localized stock effects. Although the resource (red snapper and other species co-harvested with red snapper) in the closed portion of the EEZ would be subject to reduced harvest pressure, the resource elsewhere may decline because of the effort shift. Although, as previously discussed, Gulf-wide any biological effects should be neutral, localized depletions would be expected to reduce fishing quality and, in turn, associated economic benefits. Thus, the region with the closed EEZ could benefit at the expense of any neighboring region that receives the shifted effort. This may occur even within a region if effort shifts from the EEZ to state waters; higher harvest pressure in state waters, which normally may already have lower stock densities for various species, and resultant increased harvest may cause stock densities and associated harvest rates to decline further, unless migration of fish from the closed EEZ results in stock replenishment sufficient to maintain, or enhance, the densities and harvest rates in state waters.

In the "effort recipient" neighboring regions, effort shift as a result of EEZ closure may result in degraded catch rates and a slower pace of harvest, resulting in longer seasons to harvest the regional quota, similar to what might occur in the region(s) that establishes an EEZ closure. Thus, again, economic effects, which could be either positive or negative, could occur depending on the economic trade-off between better fishing and shorter seasons versus poorer fishing and longer seasons.

Because it is assumed that, overall, any regional EEZ closure will be biologically neutral, all of the economic effects expected to occur would be expected to be short-term effects. Effort-shift related catch rate declines would not be expected to persistent year to year because the impetus to shift would decline if fishing quality erodes as a result of higher fishing pressure. As the fishing quality erodes, less effort would be attracted from neighboring regions, fishing pressure would be reduced, and the resource would have the opportunity to recover. Thus, any associated economic effects would be cyclical.

Because **Preferred Alternative 2**, and options, would allow closures of smaller geographic scope and/or shorter duration than **Alternative 3**, the economic effects would be expected to be less than the full effects expected to occur under **Alternative 3**. This determination applies to all aspects of the discussion under **Alternative 3**. For example, the incentive to shift effort, regardless of whether the incentive is to shift to own-region state waters or to a neighboring region, would be less if the size or duration of a closure is reduced. If less effort shifts to another area (within the same region or into another region), the increased pressure on the resource in that area would be reduced. A smaller increase in fishing pressure would reduce any decline in harvest rate, the change in pace at which the quota is landed, and the potential for longer seasons. Thus, overall, any of the reduced economic benefits that might accrue to some anglers or regions under **Alternative 3**, and increased benefits that might accrue to others, would be reduced under

Preferred Alternative 2. The greater the ability to reduce the scope of the closure (size or duration) relative to **Alternative 3**, the more the economic effects would be reduced relative to **Alternative 3**. Thus, the greatest potential reduction of these effects would be expected to occur if both **Option 2a** (closure duration limit) and **Option 2b** (closure size limit) are adopted. It is not possible to rank the two options with respect to each other.

Although it is straightforward to conclude that the effects of **Preferred Alternative 2** would be expected to be less than those of **Alternative 3**, similar comparison of either alternative with **Alternative 1** cannot be made. Despite the conclusion that the economic effects under each alternative will only be distributional with no change in total (Gulf-wide) net economic benefits, distributional effects have localized economic consequences. Thus, although none of the alternatives would be expected to result in a change in total net economic benefits, they may not be economically equivalent. However, it is not possible to rank the three alternatives, with or without the proposed options, because of the inability to forecast what closures may occur, how anglers may react, and how respective seasons may be affected.

4.5.4 Direct and Indirect Effects on the Social Environment

Currently, NMFS has the authority to open and close federal waters to fishing, and the Gulf States have the authority to open and close their respective state waters to fishing. The Gulf States do not have the authority to close areas within federal waters, nor would the regions that may be created through this amendment have such authority under **Alternative 1**.

Except in the circumstances discussed below, under regional management federal waters would remain open to the harvest of red snapper year-round, and the regions would establish the season dates during which anglers may possess and land red snapper in the region. When a region is open, its anglers may catch red snapper from the region's state waters or from anywhere in federal waters. When that region is closed, anglers from regions with open seasons would be able to catch red snapper from anywhere in federal waters, including federal waters adjacent to the region in which red snapper fishing is closed.

Federal waters would only be closed in the event the default regulations are applied to a particular region because 1) the region is not participating in regional management, or 2) the region does not have delegated authority or an approved CEP. In these cases, the portion of federal waters adjacent to such region would be closed to the recreational take of red snapper. That portion of federal waters would be closed not just to anglers fishing from the adjacent region, but to all recreational vessels from any region. Thus, the decision to not participate in regional management by a region, or a region's failure to have active regional management would result in negative effects for anglers of other regions who would be prohibited from catching red snapper in some areas of federal waters.

Preferred Alternative 2 and ***Proposed*** **Alternative 3** would allow for additional closures in federal waters to be established, beyond the circumstances just described. For regions not enacting one of these alternatives, greater negative effects would be expected for its anglers compared with **Alternative 1**, as regions that do not enact closures in federal waters adjacent to

their region would still be prohibited from catching red snapper in federal waters adjacent to other regions.

It is not necessary for a region to close federal waters when its red snapper fishing season is closed; rather, the region would prohibit the possession and landing of red snapper in its region, or a portion of its region. ***Proposed* Alternative 3** would allow a region to close the entire area of federal waters adjacent to its region (Figure 2.1.1). A region that closes federal waters adjacent to its state waters would be prohibiting anglers from other regions from catching red snapper in the federal waters adjacent to its region. This would result in negative effects for anglers in other regions. A region may also close federal waters adjacent to its state waters to allow its state waters to remain open. This could potentially allow the region to have a longer fishing season, as fewer and smaller fish are generally caught closer to shore. Such restrictions on a region's anglers may be desirable, if the length of the season were to be longer, or undesirable, if anglers prefer to catch larger fish further offshore. Furthermore, establishing an at-sea boundary beyond which red snapper may not be caught while other fish may be caught could be associated with a lack of compliance (accidental or deliberate) and creates problems for law enforcement.

Preferred Alternative 2 would allow a region to close areas within federal waters adjacent to its region without closing the entire region. Depending on the location of any resultant closed area, **Preferred Alternative 2** may increase or decrease the total social benefits for a respective region. Nevertheless, it remains unknown if and to what extent a region may enact such closures, thus the effects of such closures remain unknown. If it is assumed that the closed areas under **Preferred Alternative 2** would be of a lesser extent than ***Proposed* Alternative 3**, fewer negative effects would be expected to result for anglers of other regions. The effects of angler non-compliance and enforcement would likely be greater under **Preferred Alternative 2**, as the areas closed in federal waters could be more complex than the all-or-nothing closed approach of ***Proposed* Alternative 3**.

Ultimately, for some regions, the proximity to other regions could render **Preferred Alternative 2** or ***Proposed* Alternative 3** an ineffective option and could enable unintended fishing activity to occur (see section 2.5). For other regions, however, the ability to trade the benefits of harvest in the selected areas of federal waters for other management considerations could be expected to result in greater benefits than **Alternative 1** for that region.

4.5.5 Direct and Indirect Effects on the Administrative Environment

Action 5 considers allowing regions to establish closed areas in adjacent federal waters. **Alternative 1** (**no action**) would not allow regions to establish closed areas in federal waters and is not likely to have any direct or indirect effects on the administrative environment. **Preferred Alternative 2** would allow regions to establish closed areas in the adjacent federal waters and likely have adverse effects on the administrative environment including NMFS' Office of Law Enforcement, the United States Coast Guard, and state marine law enforcement operations. The enforcement of multiple closed areas would become more complex by selecting **Option 2a** or **2b** pertaining to the temporal and spatial extents of the closed areas. This complexity would be reflected by the increased burden on enforcement. However, it is expected after individual

regions establish their regional management measures and stakeholders educate themselves about these changes in regulations only indirect effects on the administrative environment are expected. In combination with the varying management measures set in each region, enforcement would be challenged with a broad range of regulations to enforce. It is likely that the administrative environment of the regions would be adversely affected by increasing notification of the closed areas to stakeholders.

4.6 Action 6 – Apportioning the Recreational Red Snapper Quota among Regions

4.6.1 Direct and Indirect Effects on the Physical Environment

Section 4.1.1 describes the effects from fishing on the physical environment and are not repeated here. Action 6 is determines the apportioning of the recreational quota among the regions. While this action may seem administrative, it may have some indirect effects on the physical environment. While the overall Gulf recreational ACL would be the same for all **Alternatives 1-8** direct effects on the physical environment over the Gulf as a whole are expected to be the same. However, this action could regionally affect the physical environment indirectly by redirecting the amount of red snapper fishing that can occur off different states or in different regions of the Gulf. Allocating based on historical landings (**Alternatives 2**, **3, 4** and **Preferred Alternative 5**) or by stock abundance (**Alternative 7**) could allow red snapper fishing to increase if a region receives an allocation greater than what landings would be under **Alternative 1** (**no action**). Thus, there would likely be an increase in any adverse effects from fishing to the physical environment for these regions based on the spatial distribution of red snapper allocation throughout the Gulf. In contrast, regions whose allocations would be reduced compared to **Alternative 1** (**no action**) would experience a reduction in any adverse effects from red snapper fishing. **Alternative 8** would distribute the quota among regions to provide an equal number of fishing days. As this would equate to having a federal season of the same number of days for the entire Gulf, the effects are likely to be similar to **Alternative 1. Preferred Alternative 6 (Preferred Option a** and **Preferred Option b)** are not likely to have any effect on the physical environment.

To determine specific effects between alternatives is difficult to analyze quantitatively. **Alternatives 2**, **3**, **4** and **Alternative 5** set allocations based on historical landings, the direction of the effect relative to other alternatives and options may be related to differences in allocation as provided in Tables 2.6.2 - 2.6.6 and the set allocations in **Alternative 5**. For example, if **Alternative 2** was selected, the allocation of the quota awarded to Florida is 33.4% (Table 2.6.2). But, if **Alternative 3** was selected instead, 39.6% would be awarded to Florida. This increase of 6.2% in allocation is likely to lead to more red snapper fishing off Florida under **Alternative 3** compared to **Alternative 2** which would likely increase any adverse effects on the physical environment. On the other hand, if **Alternative 2** were selected over **Alternative 3**, Texas would have its allocation reduced by 3.0% (from 13.0% to 16.0%; Table 2.6.2), As a result, the amount of red snapper fishing off Texas would likely fall and any adverse effects from fishing on the physical environment would be reduced.

4.6.2 Direct and Indirect Effects on the Biological/Ecological Environment

Section 4.1.2 describes the effects from fishing on the biological/ecological environment and is not repeated here. This action considers allowing regions to establish closed areas in the adjacent federal waters. Action 6 is administrative because it determines apportionment of the recreational quota among the regions. Therefore, this action would have no direct effect on the biological/ecological environment. Because the different allocations proposed in the alternatives would be based on the same quota, the overall indirect effects on the biological/ecological environment are expected to be the same for **Alternatives 1-5**. However, this action could indirectly affect different areas of this environment by redirecting the amount of red snapper fishing that can occur off different regions of the Gulf. Allocating based on historical landings (**Alternatives 2, 3, 4, and 5**) or by stock abundance (**Alternative 7**) could allow red snapper fishing to increase if a region receives an allocation greater than what landings would be under **Alternative 1** (**no action**) because red snapper fishing would likely increase to harvest the additional fish. As a result, this would likely increase any adverse effects from fishing to the local red snapper population for these regions. . In contrast, regions whose allocations would be reduced compared to **Alternative 1** (**no action**) would experience a reduction in any adverse effects from red snapper fishing. **Alternative 8** would distribute the quota among regions to provide an equal number of fishing days. As this would equate to having a federal season of the same number of days for the entire Gulf, the effects are likely to be similar to **Alternative 1. Preferred Alternative 6 (Preferred Option a** and **Preferred Option b)** are not likely to have any effect on the biological/ecological environment.

As described in Section 4.6.1 for the physical environment, although comparing allocations between alternatives may indicate some directionality of effects to the biological/ecological environment, these comparisons assume that fishing regulations remain the same between regions. For example, reducing the red snapper size limit for one state or region could lead to a change in the local population's size structure that could have positive or negative implications to the productivity of that population. Any such changes could also affect the abundance of other reef fish species that compete with red snapper for shelter and food. Local predators of red snapper could increase if red snapper abundance is increased, while species competing for similar resources as red snapper could potentially decrease in abundance if less food and/or shelter are less available. Species likely to be affected by changes in red snapper abundance the most include vermilion snapper, gray triggerfish, and gag, which all co-occur with red snapper. These effects were explored in more detail in Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007).

As with Action 1, it is difficult to compare the alternatives because information is either incomplete or unavailable for use in comparisons. To minimize the risk to the biological/ecological environment, NMFS has been working to better understand the biological/ecological environment so that management uncertainty derived from either of these state or regional management alternatives may be determined in the future. This includes conducting stock assessments under SEDAR that incorporate changes in management to assess the condition of managed stocks and well as supporting the development of ecosystem models to provide some insights into the cascading effects of populations in response to each other. In

addition, red snapper and other managed stocks are managed under ACLs and AMs to reduce the risk of overfishing.

4.6.3 Direct and Indirect Effects on the Economic Environment

The economic effects of a specific level of allowable harvest (ACL) depend on the manner in which the harvest is allowed to be taken. Estimates of the economic value of red snapper and red snapper trips are available (see Section 3.4). However, information is not available that might demonstrate how the economic value might vary by sector (for example, the value received by harvest by a private angler compared to by a charter angler), nor by state (for example, the value received as a result of harvest by a Florida angler compared to harvest by a Louisiana angler). As a result, current information simply supports an examination of how total economic value (Gulf-wide and all sectors) may change with changes in the total allowable harvest.

The foundation of the actions proposed in this amendment are, however, that the economic value varies at least by state or region such that for a given quantity of harvest, economic value can be increased if the manner (season, bag limit, size limit, etc.) in which the allowable harvest is taken can be changed to reflect localized (state or region) preferences. Accepting this foundation negates the use of a "common" economic value per fish, pound, or trip.

As a result, because neither the management regulations that might ultimately result from this proposed amendment nor the associated economic values are known, the following assessment provides a qualitative discussion of the expected economic effects of this proposed action.

Portions of the discussion of the expected economic effects for Action 1 provided in Section 4.1.3 are relevant to the discussion of the economic effects expected to result from this action. Some of this information is summarized in the following discussion and the reader is encouraged to read Section 4.1.3 for the complete discussion. Unlike Action 1 and Action 3, which would establish the management structure, this action would determine the amount of harvest allotted to each region. As a result, the expected economic effects to anglers of establishing the regional allocations would be direct effects. Beyond the typical indirect shore-side effects associated with variable angler demand, no other indirect economic effects are expected.

This assessment assumes that the management measures implemented by each region to harvest their red snapper allocation will be invariant to the allocation received. Specifically, this assumption means that the bag limit or any measure to affect harvest by private anglers versus for-hire anglers will not vary with the amount of allocation received; the amount of allocation will only affect the length of the open season. From this perspective, for a given region, the larger the allocation, the more economic benefits would be expected to be received by anglers, businesses, and associated communities in that region. Because the allocation of the total quota across all regions is a zero-sum game, an increase in allocation for one (or more) region(s) relative to an alternative allocation must, by necessity, result in a decrease in allocation to one or more other regions. As a result, because estimates of the economic value by state or region are not available, it is not possible to determine whether the economic benefits associated with allocation gains to one or more region(s) exceed the losses to other regions. Thus, it is not

possible to rank the proposed alternatives and associated options based on expected net economic benefits.

It is noted, however, that even if a specific alternative would result in an allocation for a region that is lower than recent harvests (see Tables 2.6.1-2.6.5), it cannot be concluded that the economic benefits to that region would be reduced. By tailoring the management regulations to better meet the preferences of the constituents in that region, it is possible, and likely, that the lower allocation could still result in an increase in economic benefits. Only in the event of a substantial reduction in allocation relative to normal harvest would a net reduction in economic benefits be expected to occur. This might be argued to be the case for Florida, which would, under the combination of **Preferred Alternative 5** and **Preferred Alternative 6 Preferred Options a** and **b**, be allocated 37.8% of the ACL, whereas Florida harvested 42.5% of the total Gulf-wide ACL in 2014 (data for 2014, however, was not included in the apportionment alternatives). Similarly, for Alabama, although the preferred alternatives would result in a higher allocation, 31.6%, than was harvested in 2014, this allocation would be considerably lower than the proportion of the total Gulf-wide ACL harvested in 2011-2013 (35.9%-53.6%). Essentially, the issue comes down to what level of harvest is/should be considered normal, which is not an economic question and is a question that is difficult to answer because of the changing conditions of the stock (biomass growth and eastward range expansion) and the absence of stability in both the federal season and state regulations.

The economic effects of the alternatives considered under this action would not be expected to be affected by the form of regional management adopted under Action 1, nor the specification of regions adopted under Action 3.

4.6.4 Direct and Indirect Effects on the Social Environment

This action concerns how much of the recreational sector ACL would be allocated to the regions selected in Action 3. The decision to allocate a scarce resource among user groups is controversial as participants from each region contend for the greatest allocation for their region. Negative effects would be minimized by establishing an allocation that most closely reflects actual participation and fishing effort. Assuming that participation and fishing effort remain constant, no discernible effects would be expected to result from establishing regional ACLs, as the proportion of landings represented by each region should remain the same. However, this assumption is not plausible, as many factors affect change in effort and participation. As shown in Table 2.6.1, the portion of total recreational landings by each State varies from year to year, meaning that the selection of any regional apportionment (**Alternatives 2-9**) could result in indirect effects by removing the flexibility of variable annual landings. Also, indirect impacts may occur relative to how each region's apportioned quota is adequate to satisfy status quo fishing behavior and effort.

While an underlying assumption of regional management holds that increased social benefits will result from providing greater flexibility in developing locally preferred harvest constraints, dividing the recreational sector ACL into multiple regional ACLs will require increased monitoring of landings and potentially an increased likelihood of exceeding a regional ACL. Thus, there is a trade off in the flexibility afforded by regional management to assign locally

appropriate management measures, and an increased need for monitoring and enforcement to accompany the requirement to constrain landings to a fixed portion of the recreational sector ACL.

Additional effects would not be expected from **Alternative 1** as the recreational sector ACL would continue to be managed under component ACTs for the years 2015-2017, and revert to a single recreational sector ACL in 2018. The proportion of landings among States under **Alternative 1**, are not required to remain within a specified proportion (i.e., private anglers from all States fish for red snapper until the private angling component ACT is projected to be met). Apportioning the recreational sector ACL among regions (**Alternatives 2-9**) would require the regions to constrain landings to a fixed proportion of the ACL.

The allocations proposed in **Alternatives 2-6** are based on historical landings of different time series. The magnitude of any social effects would relate to the extent by which each region's average landings for an alternative's time series is greater or lesser than its current landings. The average landings by State correspond inversely with each other, such that the larger the proportion allocated to one region, the smaller the proportion that is, in turn, the allocation for another region. This means that positive and negative effects will result relative to, and in terms of how each apportioned quota is sufficient to satisfy fishing opportunities relative to status quo fishing effort and behavior. The magnitude of the effects would in part reflect changes in effort subsequent to the implementation of an allocation, but changes in effort are not likely attributable to this action. Under **Alternatives 2-6**, allocations based on longer time series (i.e., include earlier years) are more advantageous to the western Gulf States than shorter time series that include the most recent years; shorter, more recent time series would generally be more advantageous to the eastern Gulf States. Establishing the allocation based on the most recent fishing activity and effort, such that each region would begin with an equivalent number of fishing days (**Alternative 8**) would be most beneficial to the eastern Gulf States and the least desirable for the western Gulf States (Table 4.6.4.1).

Table 4.6.4.1. Ranking of allocation for each State, assuming that each State will be its own region. For Alternatives 2-4 and Preferred Alternative 5, no years of landings are excluded. The row for Preferred Alternative 6 provides the rankings by State for Preferred Alternative 5, excluding landings from both 2006 and 2010 (currently the Council's preferred alternative).

Alternative	Intervals	AL	FL	LA	MS	TX
2	Longest time series	4	6	1	1	1
3	Intermediate time series	2	4	5	4	3
4	Most recent time series	6	2	4	5	5
Pref. 5	**Average of longest and most recent time series**	5	3	3	3	2
Pref. 6	**Exclude years of environmental events**	3	5	2	2	4
7	Projected yields for ABC for eastern and western Gulf	Not available by State; allocation to western Gulf would be greater than to eastern Gulf.				
8	Same season length at time of apportionment	1	1	6	6	6

The issue of flexibility of variable annual landings is less of an issue under **Alternative 4**, because the allocation would be divided into two parts instead of five. Thus, more than one state would be fishing within each apportionment of the quota and be able to share the effects from fluctuations in red snapper abundance and fishing effort.

4.6.5 Direct and Indirect Effects on the Administrative Environment

Action 6 considers approaches to apportion the recreational red snapper quota to the regions. Retaining a Gulf-wide recreational red snapper quota (**Alternative 1**) would not be likely to affect the administrative environment. However, selecting this alternative would not allow for implementation of a regional management program. The remaining alternatives determine the method by which the Gulf-wide quota will be divided among selected regions and would increase the burden on the administrative environment. **Alternatives 2-6,** and **8** would have minimal adverse effects by only requiring the initial calculations of apportionment. However, **Alternative 7** would require additional analysis and possible updates based on the stock biogeographical differences and the future stock assessments. Indirect effects would include continued monitoring and assessment of the red snapper stock. Existing data collection and harvest monitoring programs would remain in place, which currently include state-level landings calculations. In addition, the indirect effect of adding complexity to the regulations would likely have adverse effects on the administrative environment including NMFS' Office of Law Enforcement, the United States Coast Guard, and state marine law enforcement operations.

4.7 Action 7 – Post-season Accountability Measures (AMs)

4.7.1 Direct and Indirect Effects on the Physical Environment

Section 4.1.1 describes the effects from fishing on the physical environment and are not repeated here. Action 7 establishes the post-season AMs for the recreational harvest of red snapper. The direct and indirect effects on the physical environment from this action would be related to changes in fishing effort. The effects on the physical environment resulting from **Alternative 1** are expected to be similar to current fishing conditions. No change in fishing effort is expected to occur because no new fishing regulations would be implemented; therefore, habitat-gear interactions are estimated to remain unchanged. **Preferred Alternative 2, Alternative 3**, and **Alternative 4** would provide slight benefits to reef fish habitat by reducing the fishing effort in the following year if the landings indicate the quota was exceeded. This would increase the likelihood of achieving the goals of the rebuilding plan and preventing overfishing. If the fishing effort is reduced and the amount of time spent fishing is reduced, then the decrease in fishing effort would indirectly benefit the physical environment by reducing habitat-gear interactions.

4.7.2 Direct and Indirect Effects on the Biological/Ecological Environment

Section 4.1.2 describes the effects from fishing on the biological/ecological environment and is not repeated here. The direct and indirect effects on the biological/ecological environments from this action would be related to changes in fishing effort. **Alternative 1** would continue the current direct and indirect effects on the biological/ecological environments. The effects are

relative to the change in fishing effort which may result in over or under harvest. This alternative does not implement a reduction for the following recreational season's red snapper harvest in the case of the quota being exceeded which in turn, may increase the direct negative effects to the biological/ecological environment in relation to the other alternatives. Should an overharvest occur, this alternative could adversely affect the red snapper stock; however, this has been similar to status quo for several years.

In contrast, **Preferred Alternative 2, Alternative 3**, and **Alternative 4** would adjust for any overage during the following year, thus minimizing the effects on the biological/ecological environments relative to the overage as discussed in Section 2.6. These alternatives result in a one-for-one reduction of the following year's quota for any overage if the landings exceed the Gulf recreational ACL. This reduces adverse effects on the biological/ecological environment that would occur from the overharvest. However, if the red snapper recreational season length is drastically reduced to account for an overage, then the likelihood of non-compliance of recreational anglers with the regulations increases as does the potential for derby fishing. These activities could have negative indirect effects that would lessen the benefits of the AM by increasing the harvest of red snapper as well as increasing bycatch and discards. The overages could also be evaluated by future stock assessments and review through the SSC. For **Preferred Alternative 2** and **Alternative 4,** the effects would vary geographically as the reduction in regional quota would be applied only to that region which exceeds its apportioned quota. This could result in unevenly distributed effects depending on which regions exceed the quota and the associated AMs. It is possible that if a region exceeds its quota by over 100%, then the following year no harvest of red snapper in the region would be allowed unless the quota is greatly increased. The effects of not allowing any harvest for a year in a specific area are not known; however, these effects would be integrated into the next stock assessment.

4.7.3 Direct and Indirect Effects on the Economic Environment

Because the harvest restrictions that might ultimately result from all of the actions and alternatives considered in this proposed amendment are unknown, the following assessment provides a qualitative discussion of the expected economic effects of this proposed action. Portions of the discussion of the expected economic effects for Action 1 provided in Section 4.1.3 are relevant to the discussion of the economic effects expected to result from this action. Some of this information is summarized in the following discussion and the reader is encouraged to read Section 4.1.3.

This proposed action addresses the potential imposition of new recreational sector AMs. The current AMs would continue, in different forms of scope (more than, less than, or equal to the overage), under any of the alternatives adopted for this proposed action. These current AMs include harvest monitoring and closure of the EEZ if the red snapper recreational ACL is met, or is projected to have been met, and potential payback of harvest overages in the following year (subject to determination of the biological necessity of such payback). All of the proposed alternatives, including **Alternative 1**, would only require paybacks if the red snapper stock is overfished. AMs are a component of the management structure and their adoption is an administrative action. Because it is an administrative action, the adoption or change of an AM would not cause any direct economic effects. The direct economic effects of AMs occur only

when the AMs are triggered, if such occurs, and harvest restrictions are imposed. For the current proposed action, the trigger event would be an ACL overage.

ACLs (either regional or summed across multiple states, regions, or components) represent the amount of allowable harvest that has been estimated to be acceptable given the biological status of the resource, rates of natural and bycatch mortality, and management goals. These management goals may include growth, decline, or maintenance at the current level of biomass and stock composition. Embedded within the decision process of selecting these management goals, and the path and pace through which they are to be reached, are considerations of the economic and social (and ecosystem) consequences of the alternative options. In effect, the management decision that identifies the allowable harvest reflects a balance of the best biological, economic, and social outcomes.

From this "best" perspective, despite the uncertainties that exist in the estimation and forecast of future biological and environmental conditions processes, exceeding the red snapper recreational ACL would logically be expected to have an adverse effect on either or both the status of the resource and progress towards achieving the management goals. This, in turn, would be expected to have adverse economic effects. Assuming this is the case, it follows that overages should be avoided and, when they occur, attempt should be made to minimize their effects. Overage payback is a reasonable tool to help minimize the adverse effects of ACL overage. The intent of a payback would be to insure that the combined harvest over successive years does not exceed the combined ACL for that period.

The proposed alternatives for this action only consider "following year" paybacks and not multiple-year considerations (e.g., only impose a payback if the quota is exceeded consecutive years or in at least two of the most recent three consecutive years). It is beyond the scope of this analysis to evaluate which approach is better given the uncertainties associated with stock assessments in general, forecasting stock recovery, harvest projection and monitoring, etc. Sizeable harvest overages of the red snapper recreational quota have routinely occurred in recent years without apparent disruption of stock recovery. However, because of the lengthy time required to conduct a stock assessment, the potential cumulative harm of successive overages, and the potential of compounded payback effects on an already severely restricted open season (i.e., successive overages in a fishery with a very short open season could jeopardize the ability to have any open season when AMs are applied), annual correction (payback) may be more prudent and effective in minimizing the potential adverse economic effects of overages than multi-year considerations.

In general, it is expected that exceeding the recreational ACL and triggering AMs should be avoided. The economic benefits to fishermen, and associated businesses and communities, are expected to be greater when the ACLs, and associated seasons, are stable (or increasing), because this allows better personal and business planning and utilization of resources. Although anglers may have flexibility in their choice of recreational activity, businesses associated with the recreational fishing industry need regular customer traffic to meet monthly expenses. Paybacks are costly and disruptive in the short term because they disrupt this stability. Although a payback, in design if an overage does not repeat the second year, would result in a total two-year harvest equal to the sum of twice the normal annual ACL and increased benefits the first

year due to the ACL overage, the decline in the ACL the second year, and likely associated decline in angler demand for fishing services, could jeopardize the financial status of businesses that are dependent on the harvest of the subject species.

Additionally, a recreational ACL overage that harms the resource and adversely affects progress towards recovery goals could have adverse economic consequences for both the commercial and recreational industries and not just the recreational sector. Adverse stock effects would be expected to harm the total allowable harvest of the species. If the total allowable harvest is reduced as a result of an overage by the recreational sector, both sectors would experience harvest reductions and associated declines in economic benefits. Thus, in the long term, protection of the biological status of the resource and continued progress towards recovery goals, as provided by paybacks, would be expected to result in a net increase in economic benefits compared to no paybacks.

Alternative 1 would not change the current post-season AMs for managing red snapper recreational harvest overages in the Gulf EEZ. As a result, in the short term, no change in economic benefits to fishermen from either sector, or associated businesses, would be expected to occur. However, the current payback AM does not factor in the potential management configurations that may occur under the proposed regional management alternatives in this amendment. As a result, **Alternative 1** may result in reduced economic benefits compared to the other alternatives because of how the payback burden would be distributed across the various states/regions and components.

For the other proposed alternatives, harvest overage paybacks would be required, but only if red snapper are overfished (as under **Alternative 1**) and the total red snapper recreational harvest ("combined recreational landings") from all regions and components exceed the combined ACL (recreational sector ACL). Otherwise, the proposed alternatives vary by how the payback is shared regionally and/or by component.

With respect to sharing paybacks, the effects are less an issue of economics and more an issue of equity. As previously stated for other actions in this proposed amendment, available information does not support determination that red snapper valuation differs by region (i.e., anglers in one region value red snapper more than anglers in another region), or component. As a result, assuming red snapper are equally valued by all anglers across the Gulf, the magnitude of the economic effects to anglers would be unaffected by whether they are borne only by the region(s) responsible for the overage, or shared by all regions and components. Distributional effects would occur (i.e., a portion of the effects of a payback would be borne by regions or components where the overage did not occur if the payback is shared by all regions and components), but the total change in economic value would be unaffected. However, from an equity perspective, penalizing anglers, and associated businesses, in all regions/components for overages that only occur in others may be perceived as inequitable because it would result in re-distribution of economic benefits without apparent justification. Thus, from this perspective, **Alternative 4** (reduce only the component in the region that exceeds its ACL) would be more equitable than **Preferred Alternative 2** (reduce the regional ACL; both components would be affected) and **Alternative 3** (reduce the Gulf-wide component ACL; all regions would be affected).

With respect to the amount of the overage repaid, if an overage harms the resource or recovery of the species, and reduces the associated economic benefits, then complete payback would be expected to result in more economic benefits than partial payback. This conclusion follows even if short-term or single-year overages are not significantly harmful to the biological status of the resource because persistent cumulative overages would eventually be expected to be harmful. Under the all of **Alternatives 2-4**, the full amount of the overage would be repaid. As a result, there would be no difference in effects between the alternatives from this perspective.

It is noted that the magnitude of the overage (and subsequent payback) may factor into the ultimate significance of any economic effects. An overage in the near-term (i.e., within the next couple of years) could be sufficiently large that a payback be significantly economically harmful compared to potentially smaller overages in later years. If that is the case, then the overage would be expected to also be substantially harmful to the resource and reduce the associated long-term economic benefits. If this is the case, then the relevant question is not whether to require a payback at all, but rather whether to require the payback in a single repayment or as a series of incremental paybacks cumulatively equal to or greater than the initial overage. This option, a multi-year payback, however, is not currently included as a proposed option and, as a result, is outside the scope of this analysis.

Combining the conclusions of the discussion above, **Alternative 4** would be expected to be more equitable that **Preferred Alternative 2** and **Alternative 3.** As previously stated, however, available data does not support determining how the total economic benefits would be affected if overage repayment were made by one group versus another. If the resource is no more valuable to one group of anglers than another, then the decision on which anglers bear the burden of repayment will only have distributional effects and not affect the total change in economic benefits.

The economic effects of the alternatives considered under this action would not be expected to be affected by the form of regional management adopted under Action 1, nor the specification of regions adopted under Action 2.

4.7.4 Direct and Indirect Effects on the Social Environment

Currently, if the recreational sector ACL for red snapper is exceeded in a given year, the recreational sector ACL will be reduced the following year by the amount of the overage unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary (**Alternative 1**). Although additional effects would not be expected from retaining **Alternative 1**, if regional management is implemented and the recreational sector ACL is subsequently exceeded, regardless of the region (or component) that exceeded its portion of the recreational ACL, all regions (or components) would have the respective regional or component ACLs reduced in the following year. Thus, negative effects would result for those regions or components that constrained landings to within their respective portions of the ACL, while, positive effects would be expected for a region (or component) that exceeds its portion of the ACL while other regions (or the other component) do not. In this case, a region that exceeds its regional ACL would have landed more red snapper than it was permitted to do so, but must only pay back a portion of its excess landings, as the overage adjustment is applied to all regions

and components equally. Thus, retaining **Alternative 1** may be perceived as unfair by regions should an overage adjustment reduce the amount of a region's ACL despite that region successfully constraining landings to its portion of the ACL in the previous year.

In general, it is expected that exceeding the quota and triggering AMs should be avoided, because fishing opportunities would likely be reduced for the following season. Direct effects are not expected from adopting or modifying a post-season AM because the overage adjustment only results in effects if and when it is triggered. Indirect impacts would be expected from triggering the AM under any of the alternatives, as the available quota for the subsequent fishing season is decreased. For any of **Alternatives 1-4**, the post-season overage adjustment would only be triggered in the event the recreational sector ACL is exceeded, red snapper is classified as overfished based on the most recent Status of U.S. Fisheries Report to Congress, and the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary.

Alternatives 2-4 would modify the post-season AM such that it applies only to a region that exceeds its regional ACL (**Preferred Alternative 2**), or only to the component that exceeds its component ACL (if applicable, **Alternative 3**). If both regional ACLs and component ACLs are established, **Alternative 4** would require the overage adjustment to be applied to the specific region and/or component that has exceeded its portion of the ACL. Regions (**Preferred Alternative 2**), a component (**Alternative 3**), or both regions and a component (**Alternative 4**) that constrain landings to within their respective portions of the ACL would not be affected by a reduced ACL in the following year, meaning that each of these alternatives would result in greater benefits than **Alternative 1**. For a region or component's overage that causes the recreational sector ACL to be exceeded, the severity of the impacts would relate to the extent of the quota overage, as fishing opportunities would be reduced in the following year to make up for the quota overage. It could be socially disruptive if large recreational ACL overages one year are followed by severe paybacks the next.

4.7.5 Direct and Indirect Effects on the Administrative Environment

The direct and indirect effects on the administrative environment from this action would be related to analyzing the landings data and applying the post-season AM. **Alternative 1** would not change the administrative environment. However, this alternative results in continuously updating the yield stream to account for any overages and determine the acceptable biological catch (ABC) for red snapper each year, and developing a framework action to apply the revised ABC through updating the quotas. This maintains a burden on the administrative environment. These alternatives may indirectly affect the enforcement of the regulations negatively. By implementing adjustments for overages, the subsequent season may be shortened. **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4** could result in a closed season off a state if the previous year's regional quota was exceeded by over 100%. If the adjacent states were open for the harvest of red snapper, then the increased complexity of the regulations may confuse fishermen and result in an increase in noncompliance and negative effects on enforcement and the administrative environment. The necessity to increase enforcement in a state or states without a recreational red snapper fishing season would increase the burden on the administrative environment.

Preferred Alternative 2, **Alternative 3**, and **Alternative 4** would provide specific methods to determine the following years' quota and subsequent regional and component quotas. The direct effect may benefit the administrative environment if the quotas do not require a framework action to be implemented. However, the required calculations, landings analysis, and reports to determine the adjusted ACL if an overage occurs may increase the burden on the administrative environment.

These alternatives may indirectly affect the enforcement of the regulations negatively. By implementing adjustments for overages, the subsequent season may be shortened. In addition, if the SSC modifies the ABC due to an overage (**Alternative** 1) the season length could be reduced. **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4** could result in no fishing days for red snapper off a state if the previous year's regional quota was exceeded by over 100%. The increased complexity of the regulations may frustrate fishermen and result in an increase in noncompliance and negative effects on enforcement and the administrative environment. The necessity to increase enforcement in a state or states without a recreational red snapper fishing season would increase the burden on the administrative environment.

4.8 Cumulative Effects Analysis (CEA)

As directed by NEPA, federal agencies are mandated to assess not only the indirect and direct impacts, but cumulative impacts of actions as well. NEPA defines a cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 C.F.R. 1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect is when the combined effects are greater than the sum of the individual effects.

This section uses an approach for assessing cumulative effects that was initially used in Amendment 26 to the Reef Fish FMP and is based upon guidance offered in CEQ (1997). The report outlines 11 items for consideration in drafting a CEA for a proposed action.

1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals.
2. Establish the geographic scope of the analysis.
3. Establish the timeframe for the analysis.
4. Identify the other actions affecting the resources, ecosystems, and human communities of concern.
5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.
6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.
7. Define a baseline condition for the resources, ecosystems, and human communities.

8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.
9. Determine the magnitude and significance of cumulative effects.
10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.
11. Monitor the cumulative effects of the selected alternative and adapt management.

Cumulative effects on the biophysical environment, socio-economic environment, and administrative environments are analyzed below.

1. Identify the significant cumulative effects issues associated with the proposed actions and define the assessment goals.

The CEQ cumulative effects guidance states this step is accomplished through three activities as follows:

I. The direct and indirect effects of the proposed actions (Section 4.1-4.7);
II. Which resources, ecosystems, and human communities are affected (Section 3); and
III. Which effects are important from a cumulative effects perspective (information revealed in this CEA).

2. Establish the geographic scope of the analysis.

The primary effects of the actions in this amendment would affect the social, economic, and administrative environments of the Gulf. The physical and biological/ecological environments would be less affected as described in Sections 3.1-3.3.

The geographic scope affected by these actions is described in detail in Reef Fish Amendments 22 and 27 (GMFMC 2004b and 2007) and pertains directly to the Gulf. Red snapper are one of the most sought after species in the reef fish fishery. This species occurs on the continental shelves of the Gulf and the U. S. Atlantic coast to Cape Hatteras, N. C. (Moran 1988). Eggs and larvae are pelagic and juveniles are found associated with bottom features or bare bottom. In the Gulf, adults are found in submarine gullies and depressions; natural vertical relief structures such as coral reefs, rock outcroppings, and gravel bottoms; and artificial structures such as oilrigs and artificial reefs (GMFMC 2004a).

Commercial reef fish vessels and dealers are primarily found in Gulf States (GMFMC 2008b, 2013b). Based on mailing addresses or home ports given to the Southeast Regional Office (SERO) as of January 6, 2014[14], 100% of historical charter captain reef fish, 97% of for-hire reef fish, 98.5% of commercial reef fish permitted vessels, and 100% of vessels with reef fish longline endorsements are found in Gulf States. For permitted reef fish dealers, 94.5% are found in Gulf States. All dealers who are able to process IFQ transactions are located in Gulf States (Section 3.5.1.3). With respect to eligible red snapper individual fishing quota shareholders actually holding red snapper shares, 98% have mailing addresses in Gulf States (GMFMC 2013b). According to NMFS (2013b), approximately 35% of trips and 42% of the catch in 2012

[14]http://sero.nmfs.noaa.gov/operations_management_information_services/constituency_services_branch/freedom_of_information_act/common_foia/index.html

for U. S. marine recreational fishing trips occurred in the Gulf by approximately 3.1 million anglers catching 161 million fish.

3. Establish the timeframe for the analysis

The timeframe for this analysis is 1984 to 2017. Red snapper have been managed in the Gulf since the implementation of the Reef Fish Fishery Management Plan in **1984** which put in place a 13-inch minimum size limit total length (TL). The red snapper stock has been periodically assessed since 1988. The 2013 SEDAR 31 red snapper stock assessment was the last benchmark assessment. The assessment included reconstructed data for analysis for the commercial sector from 1872 through 1962 (Porch et al. 2004), data from 1963-2011 for commercial landings, and data from 1981-2011 for recreational landings (SEDAR 31 2013). In addition, catch effort for the Gulf shrimp fishery (SEDAR 31 2013), including reconstructed data from 1948-1972 (Porch and Turner 2004), was used to estimate juvenile red snapper discards from this fishery.

The following is a list of reasonably foreseeable future management actions. These are described in more detail in Step 4. Note that the next red snapper assessment is scheduled to be completed in 2015 followed by a benchmark assessment that will not be complete until 2016. Should new regulations be needed for the management of this stock, they will likely not be implemented until **2017** at the earliest, or the end of the timeframe discussed in this analysis.

- The next assessment for red snapper through SEDAR is an update scheduled to occur in 2014 and a benchmark assessment is scheduled for 2015 (completed in 2016). Other reef fish species scheduled for assessments include: gag, greater amberjack, hogfish, and mutton snapper in 2014; red grouper, vermilion snapper, gray triggerfish, scamp, and black grouper in 2015; and gag, greater amberjack, yellowedge grouper, gray snapper, and yellowtail snapper in 2016.

- The Council is currently developing several actions that will affect the reef fish fishery. Actions affecting red snapper include: Amendment 28 (red snapper allocation), Amendment 36 (IFQ program revision), Amendment 41 (charter vessel red snapper management), and a generic status determination criteria amendment (update ACL language). In addition, the Council is working on reef fish actions that update ACLs with new MRIP numbers, look at gag regional management, and require electronic reporting for charter boats. These actions are described in more detail in Step 4 of this CEA.

4. Identify the other actions affecting the resources, ecosystems, and human communities of concern.

a. Past actions affecting red snapper fishing are summarized in Sections 1.3. The following list identifies more recent actions (Note actions taken prior to Amendment 32, the last EIS done for the Reef Fish FMP are described in detail in that amendment (GMFMC 2011a) and are incorporated here by reference).

The following are past actions specific to red snapper:

- In January 2011, the Council submitted a framework action (GMFMC 2011c) to NMFS to increase the red snapper total allowable catch to 7.185 mp, with a 3.521 mp

recreational quota and a 3.664 mp commercial quota. The final rule from this action established a 48-day recreational red snapper season was June 1 through July 18.

- On August 12, 2011, NMFS published an emergency rule that, in part, increased the recreational red snapper quota by 345,000 pounds for the 2011 fishing year and provided the agency with the authority to reopen the recreational red snapper season later in the year, if the recreational quota had not been filled by the July 19 closing date. However, in August of that year, based on headboat data plus charter boat and private recreational landings through June, NMFS calculated that 80% of the recreational quota had been caught. With the addition of July landings data plus Texas survey data, NMFS estimated that 4.4 to 4.8 mp were caught, well above the 3.865 mp quota. Thus, no unused quota was available to reopen the recreational fishing season.
- On May 30, 2012, NMFS published a final rule to implement a framework action submitted by the Council to increase the commercial and recreational quotas and establish the 2012 recreational red snapper fishing season (GMFMC 2012a). The recreational season opened on June 1 through July 11. However, the north-central Gulf experienced extended severe weather during the first 26 days of the 2012 recreational red snapper fishing season, including Tropical Storm Debby. Because of the severe tropical weather, the season was extended by six days and closed on July 17.
- On May 29, 2013, NMFS published a final rule to implement a framework action submitted by the Council to increase the commercial and recreational quotas (GMFMC 2013c). The combined quotas were raised from 8.080 million pounds whole weight to 8.460 lbs whole weight. The recreational fishing season was set differently for waters off different states because of non-compatible regulations. However, a federal court ruled against different seasons, so the season for federal waters was from June 1 through July 5. Later in 2013, NMFS approved a framework action (GMFMC 2013a) to increase the combined quotas from 8.46 mp to 11 mp. This allowed an additional recreational fishing season from October 1 through October 15.
- An exempted fishing permit was given to the Gulf of Mexico Headboat Collaborative Pilot program that began on January 1, 2014. NMFS authorized the 2-year pilot program to assess the viability of an allocation-based management strategy for achieving conservation and economic goals more effectively than current management. The Headboat Collaborative was allocated a portion of the red snapper and gag recreational quotas based on historical landings data and participating headboats are able to use the allotted quota to harvest red snapper and gag outside the normal recreational fishing seasons.
- In response to a decision by the U.S. District Court for the District of Columbia (Court) in Guindon v. Pritzker, 2014 WL 1274076 (D.D.C. Mar. 26, 2014), NMFS took emergency action May 15, 2014 (79 FR 27768) to address recent recreational red snapper quota overages. At their April 2014 meeting, the Council requested an emergency rule to implement an in-season accountability measure for the recreational harvest of red snapper in the Gulf that would apply to the 2014 season that opened on June 1, 2014. The action set an ACT equal to 80% of the 5.390 mp quota (ACT = 4.312 mp). The resultant 9-day season was based on the ACT and has only a 15% probability of exceeding the quota.
- A framework action was implemented in March 2015 to establish a recreational red snapper ACT and overage adjustment as accountability measures for the recreational

sector.

b. The following are recent reef fish actions not summarized in Section 1.3 but are important to the reef fish fishery in general (Note actions taken prior to Amendment 32 are described in detail in that amendment (GMFMC 2011a) and incorporated here by reference).

- A rule effective April 2, 2012, that adjusted the 2012 commercial quota for greater amberjack, based on final 2011 landings data. For 2011, the commercial quota was exceeded by 265,562 pounds. Therefore, NMFS adjust the 2012 commercial quota to account for the overage resulting in a quota of 237,438 pounds.
- A temporary rule effective May 14, 2012, reduced the gray triggerfish annual catch limits and commercial and recreational annual catch targets. The temporary rule was put in place to reduce overfishing while the Council worked on long-term measures to end overfishing and rebuild the stock in Amendment 37.
- A framework action effective on November 19, 2012, eliminated the earned income qualification requirement for the renewal of Gulf commercial reef fish permits and increased the maximum number of crew members for dual-permitted (commercial and charter) vessels. The Council determined the existing earned income requirement in the reef fish fishery is no longer necessary and relaxing the number of crew on dual-permitted vessels increased the safety on commercial trips, particularly for commercial spear fishermen.
- Amendment 38 (GMFMC 2012b), effective March 1, 2013, allows NMFS to shorten the season for gag and red grouper if landings exceeded the catch limit in the previous year. The amendment also changed the trigger method for recreational accountability measures to an annual comparison of landings to the catch limit rather than using a three-year moving average. Finally, the amendment allows the establishment or modification of accountability measures through the faster framework procedure rather than through slower plan amendments.
- Amendment 37 (GMFMC 2012c), rulemaking effective June 10, 2013, was developed to end overfishing of gray triggerfish and rebuild the gray triggerfish stock. The amendment adjusted the commercial and recreational gray triggerfish annual catch limits and annual catch targets, established a 12-fish commercial gray triggerfish trip limit and a 2-fish recreational daily bag limit, established an annual fishing season closure from June 1 through July 31 for the commercial and recreational sectors, and established an overage adjustment for the recreational sector.
- A framework action effective July 5, 2013, adjusted the recreational gag season to July 1 through December 3, 2013, the time projected to harvest the recreational annual catch target of 1.287 mp. The framework action also restricted the geographical extent of the fixed February 1 through March 31 shallow-water grouper closed season to apply only to waters seaward of the 20-fathom boundary. This allows grouper fishing to occur year-round while providing some protection to species that spawn during February and March.
- A framework action effective September 3, 2013, set a 10-vermilion snapper bag limit within the 20-fish aggregate reef fish bag limit as a precautionary measure to reduce the chance of overfishing for this species. The action also increased the Gulf yellowtail

snapper annual catch limit from 725,000 pounds to 901,125 pounds based on a recent stock assessment. Finally, the action eliminated the requirement to use venting tools when fishing for reef fish as 1) some scientific studies have questioned the usefulness of venting tools in preventing barotrauma in fish and 2) the action would give more flexibility to fishermen on when to vent or to use some other device like fish descenders.

- A framework action effective March 5, 2014, requiring headboats to report their logbooks electronically in the Gulf reef fish and coastal migratory pelagic fisheries.
- Accountability measures for red grouper and gray triggerfish were implemented. For red grouper recreational fishing, the bag limit was reduced from four to three fish on May 5, 2014, and a season closure was projected for September 16, 2014. For gray triggerfish, the recreational season was closed on May 1, 2014.

c. The following are reasonably foreseeable future actions (RFFA) important to red snapper and the reef fish fishery in general[15].

- The Council is currently developing the following actions for red snapper.
    - Amendment 28 would revise the current 51% commercial: 49% recreational allocation.
    - Amendment 36 would revise the IFQ program based on recommendations from the red snapper IFQ program. These recommendations would be based on a review of the program completed in 2013 (GMFMC 2013b).
    - A generic status determination criteria amendment proposes to update the current red snapper quota-based language for setting commercial and recreational allocations with ACL-based language in accordance with the Magnuson-Stevens Act.
    - Amendment 41 and 42 were proposed by the Council to examine a charter/for-hire management programs for red snapper and possibly other reef fish in the Gulf of Mexico.
- The Council is working on other reef fish actions. These are as follows:
    - An amendment to require electronic reporting for charter boats to improve the quality and timeliness of landings data for this sector.
- Congress has proposed HR 3099 and S 1161 which directs the Gulf States Marine Fisheries Commission to: (1) prepare and adopt a data collection strategy for the Gulf red snapper fishery, including interstate collaboration measures and a plan for annual stock assessments; and (2) prepare, adopt, and submit to the Secretary of Commerce a fishery management plan providing for the conservation and management of Gulf red snapper and describing the standards of compliance for Gulf coastal states to use in developing fishery management measures.

d. The following are non-FMP actions which can influence the reef fish fishery.

Amendment 30B (GMFMC 2008b) describes in detail non-FMP actions relating liquefied natural gas terminals, hurricanes, fuel prices, and imports and were reiterated in Amendment 32. To summarize:

[15] Information on these developing actions can be found on the Council's website at www.gulfcouncil.org.

- Some liquefied natural gas terminals use sea water to heat the gas back to its gaseous phase. For open systems, high volumes of sea water are required and are likely to result in large mortalities of marine organism eggs and larvae.
- For hurricanes, direct losses to the fishing industry and businesses supporting fishing activities occur ranging from loss of vessels to destruction of fishery infrastructure (Walker et al. 2006). However, although these effects may be temporary, those fishing-related businesses whose profitability is marginal may be put out of business should a hurricane strike.
- Rising fuel costs have negative impacts on communities by increasing business costs and lowering profits.
- Most seafood consumed in the United States is imported and the quantity of imports has been steadily increasing. The effects of imports on domestic fisheries can cause fishermen to lose markets through commercial sector closures as dealers and processors use imports to meet demand, and limit the price fishermen can receive for their products through competitive pricing of imports.

In addition, Amendment 32 (GMFMC 2011a) discussed in detail a 2005 red tide event on the west-Florida shelf and the resultant oil spill from the explosion on the Deepwater Horizon MC252 oil rig. The red tide event may have affected reef fish, including red snapper populations. It has only been in the last 10 years that mortalities of higher vertebrates have been indisputably demonstrated to be due to acute red tide blooms and their brevetoxins (Landsberg et al. 2009). The extent of this event and possible effects of fish community structure has been described in Gannon et al. (2009).

Millions of barrels of oil were released into the Gulf from the Deepwater Horizon MC252 event (see http://response.restoration.noaa.gov/deepwaterhorizon). The effects on the environment on reef fish and the reef fish fisheries may not be known for several years when affected year classes of larval and juvenile fish enter the adult spawning population orfishery. For red snapper, this occurs at approximately 3 years of age, so a year class failure in 2010 may not be detected in the spawning populations or by harvesters of red snapper until 2013 at the earliest. The results of the studies detecting these impacts on recruitment should be available soon and will be taken into consideration in the next SEDAR assessment. In addition to impacts on recruitment, adult reef fish may also have been negatively affected by the oil spill. For example, Weisberg et al. (2014) suggested the hydrocarbons associated with Deepwater Horizon MC252 oil spill did transit onto the Florida shelf and may be associated with the occurrences of reef fish (including red snapper) with lesions and other deformities. The overall impact of the oil spill may not be realized for quite some time and study results are just now becoming available.

There is a large and growing body of literature on past, present, and future impacts of global climate change induced by human activities (Kennedy et al. 2002). Some of the likely effects commonly mentioned in relation to marine resources are sea level rise, ocean acidification, coral bleaching, increased frequency of severe weather events, and change in air and water temperatures (Kennedy et al. 2002; Osgood 2008). The Environmental Protection Agency's climate change Web page provides basic background information on these and other measured or anticipated effects. In addition, the Intergovernmental Panel on Climate Change has numerous reports addressing its assessments of climate change

(http://www.ipcc.ch/publications_and_data/publications_and_data.shtml). Additional reports are provided on the Global Climate Change website http://climate.nasa.gov/scientific-consensus.

Global climate changes could affect Gulf fisheries; however, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (Kennedy et al. 2002; Osgood 2008). An area of low oxygen, known as the dead zone, forms in the northern Gulf each summer, and has been increasing in recent years (see Section 3.3). Climate change may contribute to this increase by increasing rainfall that in turn increases nutrient input from rivers. This increased nutrient load causes algal blooms that, when decomposing, reduce oxygen in the water (Needham et al. 2012; Kennedy et al. 2002). It is unclear how climate change would affect reef fishes and likely would affect species differently. Climate change can affect factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. Burton (2008) speculated climate change could cause shifts in spawning seasons, changes in migration patterns, and changes to basic life history parameters such as growth rates. In addition, the distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Hollowed et al. (2013) provided a review of projected effects of climate change on the marine fisheries and dependent communities. Integrating the potential effects of climate change into the fisheries assessment is currently difficult due to the time scale differences (Hollowed et al. 2013). The fisheries stock assessments rarely project through a time span that would include detectable climate change effects. Climate change may significantly affect Gulf reef fish species in the future, but the level and time frame of these effects cannot be quantified at this time. Actions from this amendment are not expected to significantly contribute to climate change through the increase or decrease in the carbon footprint from fishing.

5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.

This step should identify the trends, existing conditions, and the ability to withstand stresses of the environmental components. According to the CEQ guidance describing stress factors, there are two types of information needed. The first are the socioeconomic driving variables identifying the types, distribution, and intensity of key social and economic activities within the region. The second are the indicators of stress on specific resources, ecosystems, and communities.

Reef Fish Fishery

Data used to monitor commercial reef fish effort includes the number of vessels with landings, the number of trips taken, and trip duration. Declines in effort may be a signal of stress within the fishery. For the red snapper component of the commercial sector, the number of vessels and trips did decline after the red snapper IFQ program was first implemented. However, the number of vessels and trips with red snapper landings have increased from 2007 to 2012 (GMFMC

2013b). These trends are described in Sections 3.1, 3.4, 5.0, 6.0 and in GMFMC (2013b). The commercial IFQ program recently underwent a 5-year review (GMFMC 2013b). The stated goals of this program, implemented through Amendment 26 (GMFMC 2006) were to reduce overcapacity and eliminate problems associated with overcapacity. The review found the program was moderately to highly successful in meeting the program goals; however, further improvements were identified regarding overcapacity, discard mortality price reporting, and social and community impacts. Therefore, the red snapper component of the commercial sector does not seem to be stressed.

Within the commercial reef fish sector as a whole, the number of commercial vessels has been declining as evidenced by the number of permits (Table 4.8.1). The number of permits has declined from 1,099 in 2008 to 917 in 2012 and the number landing at least one pound of reef fish has declined from 681 to 557 over the same time period. Although this could be an indicator of stress in the fishery, the commercial sector has undergone several changes in the past few years with the IFQ programs for red snapper, grouper, and tilefish. Given that a primary goal of these programs is to reduce overcapacity, the reduction in permits may just reflect this expected change.

Table 4.8.1. Number of Gulf of Mexico reef fish commercial (landing at least one pound of reef fish), for-hire, and historical captain permits by year.

	Year				
Sector	**2008**	**2009**	**2010**	**2011**	**2012**
Commercial	**1099 (681)**	**998 (696)**	**969 (580)**	**952 (561)**	**917 (557)**
For-hire	**1458**	**1417**	**1385**	**1353**	**1336**
Historical captain	**61**	**56**	**47**	**43**	**42**

Source: Southeast Regional Office, Limited Access Permit Program Branch.

Table 4.8.2. Number of Gulf of Mexico reef fish commercial trips catching at least one pound of reef fish and the number of offshore angler trips for the charter and private angling components of the reef fish recreational sector for the years 2008-1012.

	Year				
Sector	2008	2009	2010	2011	2012
Commercial	8,079	8,177	5,991	6,541	6,629
Charter	326,868	319,768	229,679	300,668	355,413
Private angler	1,434,875	1,011,948	767,080	782,989	1,017,007

Sources: Commercial trip data from the Southeast Regional Office, Limited Access Permit Program Branch and recreational angler trip data from NOAA Office of Science and Technology's Recreational Fisheries Statistics web page at https://www.st.nmfs.noaa.gov/recreational-fisheries/index.

For the reef fish recreational sector, the number of angler trips in offshore waters are used as a proxy for recreational reef fish fishing and show a decline in 2010 from 2008 and 2009 values followed by an increase in trips in 2011 and 2012. This suggests the sector is recovering from the 2010 Deepwater Horizon MC252 oil spill. Within the for-hire component, the number of

for-hire and historical captain permitted vessels has declined from 2008 to 2012 and could be viewed as an indicator of stress. However, the number of offshore trips by the charter component has increased above 2008 and 2009 values suggesting economic conditions for this component were improving. However, as pointed out in Chapter 1, pounds landed and trips taken by for-hire vessels relative to private anglers were lower in 2013, likely as a consequence of state waters during extend state seasons being closed to federally permitted for-hire vessels when the federal red snapper recreational season was closed.

Red Snapper

Major stresses to the red snapper stock have primarily come from overfishing, which has been occurring at least since the first stock assessment in 1988 and overfishing only recently ended. It is likely that quota overruns by both commercial and recreational sectors have slowed the recovery of the stock. Trends in landings and the status of red snapper stock are based on NMFS and SEDAR stock assessments (summarized in Sections 3.1 and 3.3) and incorporated here by reference. The most recent stock assessment indicates the stock is continuing to rebuild. It is likely the red snapper stock was adversely affected by the Deepwater Horizon MC252 oil spill in 2010; however, these effects are only just being realized (see step 4d). A recommendation in the 2013 stock assessment (SEDAR 31 2013) is that future assessments of Gulf red snapper should be conducted with the explicit goal of attempting to model any enduring oil spill effects and their effect on the stock. At this point, it is unclear if and how climate change is affecting red snapper stocks. Burton (2008) speculated climate change could cause shifts in spawning seasons, changes in migration patterns, and changes to basic life history parameters such as growth rates in Gulf fish stocks, but changes to such patterns have not been observed for red snapper.

Ecosystem

With respect to stresses to the ecosystem from actions in this amendment, changes in the red snapper allocation are not likely to create additional stress. Handline gear, the primary gear used by the fishery, and longlines can damage habitat through snagging or entanglement; however, as described in Section 4.1.1, these impacts are minimal. Changes in the population size structure as a result of shifting red snapper fishing selectivities and increases in stock abundance could lead to changes in the abundance of other reef fish species that compete with red snapper for shelter and food. Predators of red snapper could increase if red snapper abundance is increased, while species competing for similar resources as red snapper could potentially decrease in abundance if food and/or shelter are less available. Efforts to model these interactions are still ongoing [e.g., Ecopath (Walters et al. 2006) and Atlantis[16]), and so predicting possible stresses on the ecosystem in a meaningful way is not possible at this time. As described in Part 4d of this cumulative effects analysis, the Deepwater Horizon MC252 incident has affected more than one-third of the Gulf area from western Louisiana east to the panhandle of Florida and south to the Campeche Bank in Mexico. The impacts of the oil spill on the physical and biological environments are expected to be significant and may be long-term. Stressors to the ecosystem could include such factors as year-class failures and damage to reef fish EFH. Climate change may also be a stressor to the ecosystem, but is poorly understood. Hollowed et al. (2013) outlined the difficulties in understanding the effects of climate change and developed a conceptual pathway of direct and indirect effects of climate change and other anthropogenic factors on marine ecosystems. They suggest integrated interdisciplinary research teams be used

[16] NOAA's Integrated Ecosystem Assessment Program (https://www.st.nmfs.noaa.gov/iea/gulfofmexico.html)

better understand the effects. At this time, climate change does not appear to be a stressor on the reef fish fishey. However, it could be in the future. The National Ocean Service (2011) indicated that 59% of the Gulf coast shoreline is vulnerable to sea level rise. This means coastal communities that support this fishery could be impacted in the future from higher storm surges and other factors associated with sea level rise. These communities do appear to be somewhat resilient given their ability to recover after the 2004 and 2005 hurricane seasons as well as from the Deepwater Horizon MC252 oil spill (see step 4).

Administrative Environment

The stresses to the administrative environment from these actions would likely focus on the setting of annual quotas, ACTs, as well as monitoring landings to determine if AMs have been triggered. However, these stresses are not expected to significantly differ from the current stresses. In 2013, several states established recreational red snapper regulations that were inconsistent with federal regulations. This caused additional stress on the administrative environment requiring additional regulations, analysis, presence of law enforcement, and increased confusion among the fishing public. The actions in this amendment would allow regions to adjust regulations to meet their regional needs while maintaining consistency with the FMP and likely reduce stress in this environment. It is unknown whether the regions would be able to constrain harvest to the quota. However, with the current federal management, the recreational sector has exceeded the allocation in 14 of 22 years in which an allocation was specified. The stock could likely withstand some overages without jeopardizing the rebuilding plan; however, continuous overages could result in a change of the stock status. However, the regions have indicated they intend to establish new monitoring procedures, which could improve the estimations for landings, but the SEFSC would need to review the sampling designs and data to insure compatibility with the current methods.

6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.

This section examines whether resources, ecosystems, and human communities are approaching conditions where additional stresses could have an important cumulative effect beyond any current plan, regulatory, or sustainability threshold (CEQ 1997). Sustainability thresholds can be identified for some resources, which are levels of impact beyond which the resources cannot be sustained in a stable state. Other thresholds are established through numerical standards, qualitative standards, or management goals. The CEA should address whether thresholds could be exceeded because of the contribution of the proposed actions to other cumulative activities affecting resources.

Reef Fish Fishery

As indicated above, both commercial and for-hire fisheries are subject to stress as a result of increases in fishing costs, increases in harvesting efficiency, more restrictive regulations (particularly for red snapper), and changes in the stock status of certain species (effort shifting). Reductions in dollars generated by these entities would likely be felt in the fishery infrastructure. For the reef fish fishery, an indicator of stress would be a decline in the number of permitted vessels. For the commercial sector, the number of vessels and trips landing red snapper initially declined after the IFQ program went into effect in 2007 (419 vessels and 4,714 trips in 2006

compared to 319 vessels and 2,578 trips in 2007; GMFMC 2013b). However, the number of vessels and trips landing red snapper has increased in recent years (368 vessels and 3,389 trips in 2011) demonstrating that conditions in commercial red snapper sector are improving. GMFMC (2013b) also cites other factors such as pricing, fleet and effort consolidation, and market conditions that also support an improved socioeconomic environment. As mentioned in Step 5 of this CEA, the number of vessels in the commercial sector has declined; however, with the shift towards IFQ management, it is difficult to determine if this reflects stress in the sector or is a result of overcapacity reduction - an expected result of IFQ management. Five-year reviews similar to the one conducted for red snapper are planned for the grouper and tilefish IFQ programs after the 2014 fishing year (year 5 of the) is complete.

Analyses conducted on the effects of a limited access program for for-hire vessels indicated operations were generally profitable (GMFMC 2005a). However, testimony from for-hire operators in light of recent red snapper regulations have suggested some for-hire operators may go out of business, particularly in the northeastern Gulf. Other reasonably foreseeable actions listed in Step 4c of this analysis are not expected to adversely affect the for-hire component and so should not place additional stress to the recreational sector. Non-FMP actions (see Step 4d) may place added stress on the for-hire component of the recreational sector (e.g., hurricanes and higher fuel costs). However, timing and magnitude of the potential negative cumulative the effects from these events are difficult to predict.

Little information is available on the stresses on the private angler sector. Because private angling is an optional activity, likely factors that affect a person's involvement are likely economic. Therefore, costs such as fuel, marina fees, and boat upkeep are likely to affect a person's decision to go red snapper fishing or not, particularly within the current short recreational red snapper season. As a result, more red snapper trips could be taken if there are gains in pounds for this component. Other reasonably foreseeable actions listed in Step 4c of this analysis are not expected to adversely affect the private angling component and so should not place additional stress to the recreational sector as a whole. Non-FMP actions (see Step 4d) may place added stress on the private angling component (e.g., hurricanes, higher fuel costs, and climate change). However, timing and magnitude of the potential negative cumulative the effects from these events are difficult to predict (see steps 4 and 6).

Red Snapper

Amendment 1 to the Reef Fish FMP (GMFMC 1989), implemented in 1990 before the Sustainable Fisheries Act (SFA) was passed, established the minimum spawning stock biomass at 20 percent SPR for all reef fish species. A 1991 regulatory amendment (GMFMC 1991) established a commercial quota and a 1997 regulatory amendment established a recreational quota. The quotas were set based on the 51:49 commercial:recreational allocation being applied to the total allowable catch. The Generic Sustainable Fisheries Act (SFA) Amendment (GMFMC 1999) proposed SFA definitions for optimum yield, minimum stock size threshold and maximum fishing mortality threshold for three reef fish species and generic definitions for all other reef fish. The definition of maximum fishing mortality threshold for red snapper, $F_{26\%SPR}$, was approved and implemented. Definitions for optimum yield and minimum stock size threshold were disapproved because they were not biomass-based. ACLs were not implemented for red snapper as the commercial and recreational quotas were considered functional

equivalents; however, ACLs are currently being defined by the Council in a Generic Status Determination Criteria Amendment (see 4c of this CEA).

A benchmark assessment was conducted for red snapper in 2013 under the SEDAR stock assessment process (see Section 3.3 for a summary of the assessment). Based on the parameter estimates through 2011, the red snapper stock was found to be overfished, but that overfishing had ended. A brief description of the stock and its status can be found in Section 3.3 and step 5 of this CEA. Measures proposed in this amendment are not likely to adversely affect the red snapper stock status as long as landings do not exceed the OFL. This is because the actions would affect the allocation of red snapper between components and not how many red snapper can be caught. At this time, it is unclear how climate change may affect these regulatory thresholds (see steps 4 and 5).

Ecosystem

The stresses associated with the proposed actions in relation to regulatory thresholds are not likely to cause beneficial or adverse effects on the ecosystem. The actions would not change the way the reef fish fishery as a whole is prosecuted. Actions in the amendment would affect red snapper recreational fishing and not fishing for the other 30 reef fish species. Thus, significant effects on the ecosystem are not expected. The overall Gulf-wide fishing effort would remain constrained by the recreational quotas and annual catch limits. Climate change is likely to affect the Gulf ecosystem; however, as described in steps 4 and 5, these effects are poorly understood.

Administrative Environment

The stresses associated with the proposed actions in relation to regulatory thresholds are not likely to cause beneficial or adverse effects on the administrative environments. Activities such as monitoring landings, setting quotas, and enforcing fisheries regulations will continue as before. If the creating two components of the recreational sector result in more satisfying management measures for each component, this should reduce stresses on managers to respond complaints by stakeholders on red snapper management.

7. Define a baseline condition for the resources, ecosystems, and human communities.

The purpose of defining a baseline condition for the resource and ecosystems in the area of the proposed actions is to establish a point of reference for evaluating the extent and significance of expected cumulative effects.

Reef Fish Fishery

As noted in Section 3.1, a description of the fishery and affected environment relative to red snapper was last fully discussed in joint Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007). Red snapper landings for the recreational sector are not available at the community level, making it difficult to identify communities as dependent on recreational fishing for red snapper. Data reflecting commercial landings of red snapper may or may not reflect areas of importance for recreational fishing of red snapper. It cannot be assumed that the proportion of commercial red snapper landings among other species in a community would be similar to its proportion among recreational landings within the same community because of sector differences in fishing practices and preferences. Thus, in addition to communities with the

greatest commercial red snapper landings, the referenced analysis identifies communities with the greatest recreational fishing engagement, based on numbers of: 1) federal for-hire permits, 2) vessels designated recreational by owner address, and 3) vessels designated recreational by homeport, plus availability of recreational fishing infrastructure. The Gulf communities to score highest for recreational fishing engagement based on the described analysis Section 3.5.

Information is lacking on the social environment of these fisheries, although some economic data are available, although primarily for the commercial sector. Fishery-wide ex-vessel revenues are available dating to the early 1960s, and individual vessel ex-vessel revenues are available from 1993 when the logbook program was implemented for all commercial vessels.

Red Snapper

The first stock assessment of red snapper was conducted in 1986 and has been assessed periodically since then (see Section 3.1). The most recent assessment (see Section 3.3 for a summary) occurred in 2013 through the SEDAR process and included data through 2011. The assessment shows trends in biomass, fishing mortality, fish weight, and fish length dating to the earliest periods of data collection. For this assessment, reliable commercial landings data were estimated back to 1963 and projected landings were estimated back to 1872 (Porch et al. 2004). Recreational data were available since 1981. Beginning with the 1988 assessment (Goodyear 1988), red snapper have been considered overfished and undergoing overfishing. However, the most recent assessment (SEDAR 31 2013) showed that overfishing had ended and that the stock condition, although still overfished, was improving. An update assessment is scheduled to be completed in December 2014 and presented to the Council's SSC in January 2015. At this time, it is unknown what affects non-FMP actions (beneficial or adverse) such as the Deepwater Horizon MC252 oil spill or climate change may have on the health of red snapper stocks. Long-term monitoring of reef fish stocks relative to the Deepwater Horizon MC252 oil spill are ongoing.

Ecosystem

A baseline for analysis of the physical environment, as discussed in Section 3.2, was conducted in the EIS for the Generic EFH Amendment (GMFMC 2004a). Detailed information pertaining to the closures and preserves is provided in the February 2010 Regulatory Amendment (GMFMC 2010). In the Gulf, fish habitat for adult red snapper consists of submarine gullies and depressions; natural vertical relief structures such as coral reefs, rock outcroppings, and gravel bottoms; and artificial structures such as oilrigs and artificial reefs (GMFMC 2004a). Many of these vertical relief areas are identified as protected areas.

Other species in the ecosystem are discussed in Section 3.3. The Reef Fish FMP currently encompasses 31 species (Table 3.3.2). Eleven other species were removed from the FMP in 2012 through the Generic ACL/AM Amendment (GMFMC 2011b). Stock assessments and stock assessment reviews have been conducted for 13 species and can be found on the Council (www.gulfcouncil.org) and SEDAR (www.sefsc.noaa.gov/sedar) websites.

Administrative Environment

The administrative environment is described in Section 3.6. Responsibility for federal fishery management is shared by the Secretary of Commerce (Secretary) and the Council for the federal

waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf states exercise legislative and regulatory authority over their respective state's natural resources through discrete administrative units. Although each agency is the primary administrative body with respect to the states' natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources.

Regulations contained within FMPs are enforced through actions of NOAA's Office of Law Enforcement, the United States Coast Guard, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the Magnuson-Stevens Act. These activities are being coordinated by the Council's Law Enforcement Advisory Panel and the Gulf States Marine Fisheries Commission's Law Enforcement Committee, which have developed a 5-year "Gulf of Mexico Cooperative Law Enforcement Strategic Plan – 2008-2012."

The ability of the regions to constrain harvest causes uncertainty surrounding the effects of implementing regional management. The federal management has experienced overages of the quota or allocation in 14 of the last 22 years. However, the methods for estimating landings and projecting the season have improved consistently over time. The question remains if regions could constrain the harvest within the regional quotas; however, the regions have indicated they intend to improve monitoring for their specific regions under this plan, which should ameliorate any concerns about overages being worse. Nevertheless, NMFS would need to continue analyzing the catch rates and landings to determine whether the regional management measures constrain the harvest. If the quota is exceeded for Gulf recreational red snapper harvest, then NMFS would be required to prohibit harvest in the EEZ regardless of the regional management plans.

8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.
Cause-and–effect relationships are presented in Tables 4.4.3.

Table 4.8.3. The cause and effect relationship of fishing and regulatory actions for red snapper within the time period of the CEA.

Time periods	Cause	Observed and/or expected effects
1800-2016	Climate change	Changes ocean acidity and temperature modifies fish and prey distributions and productivity; threaten fishing communities through sea level rise and changing weather patterns
1962-1983	Growth and recruitment overfishing	Declines in mean size and weight
1984	13-inch minimum size limit for the recreational and commercial fisheries	Slowed rate of overfishing
1990	3.1 mp quota for commercial fishery and 7 fish bag limit	Further slow rate of overfishing
1991-1992	2.04 mp commercial quota	Continue to slow rate of overfishing

1992	Establish red snapper Class 1 and 2 endorsements and respective trip limits	Begin derby fishery
1993-1998	3.06 mp commercial quota	Continue to slow rate of overfishing
1994	Increase minimum size to 14 inches in the commercial and recreational fisheries	Increase yield per recruit, increase the chance for spawning, and slow rate of overfishing
1995-1997	Increase minimum size to 15 inches in the commercial and recreational fisheries and reduce the bag limit to 5 fish	Increase yield per recruit, increase the chance for spawning, and slow rate of overfishing
1997-2005	Reduce recreational season length	Constrain harvest in recreational fishery
1998	Shrimp trawls in the EEZ required to use NMFS-certified BRDs west of Cape San Blas	Reduce fishing mortality rate on age 0 and age 1 red snapper
1998-2005	Reduce bag limit to 4 fish	Reduce fishing mortality rate in recreational fishery
1999-2005	Raise total quota to 9.12 mp	Reduce rebuilding rate for fishery
2000-2014	Raise recreational minimum size limit to 16 inches	Increase yield per recruit, increase the chance for spawning, slow rate of overfishing
2004	Shrimp trawls in the EEZ required to use NMFS-certified BRDs east of Cape San Blas	Further reduce fishing mortality rate on age 0 and age 1 red snapper
2004	Implement red snapper rebuilding plan	Provide mechanism to monitor harvest for rebuilding
2007-2016	Commercial- Established Individual Fishing Quota Program (IFQ)	Constrain commercial harvests within the limits set by the rebuilding plan; IFQ to further control commercial sector to prevent overages; increase in administrative work to manage the IFQ.
2007-2014	Recreational - Reduction of bag limit to 2 fish and adjustment of season length	Constrain recreational harvest to the quota. Progressively shorter seasons as average size of landed fish increases.
2013-2016	Overfishing has ended, but the stock remains overfished.	Continue stock rebuilding

9. Determine the magnitude and significance of cumulative effects.

The primary objectives of this amendment and associated EIS is to provide flexibility in the management of the recreational harvest of red snapper by restructuring the federal fishery management strategy to allow for regional variation and developing accountability measures to address overages. The short- and long-term direct and indirect effects of each these actions are provided in Section 4.

To examine the magnitude and significance of the cumulative effects, important valued environmental components (VECs) were identified for the overall actions to be taken with this amendment. VECs are "any part of the environment that is considered important by the proponent, public, scientists and government involved in the assessment process. Importance may be determined on the basis of cultural values or scientific concern" (EIP 1998). For purposes of this analysis, an initial 22 VECs were identified, and the consequences of each

alternative proposed in this amendment on each VEC were evaluated. Some of these VECs were combined into a revised VEC because many of the past, current, and reasonably foreseeable future actions (RFFA) were similar. Based on this analysis, six VECs were determined to be the most important for further consideration. Note that because 163 vessels have both commercial and for-hire reef fish permits, commercial vessels were included in the analysis of vessel owner, captain, and crew. The six VECs are shown in Table 4.8.4.

VECs not included for further analysis were sharks, protected resources, and Wholesale/retail. Many longline vessels that target reef fish also target sharks. However, sharks were not considered as an important VEC because, as shark stocks have declined, the shark fishery has become more and more regulated, limiting the effects of this fishery and the stock on reef fish stocks. There may be some effort shifting from the shark fishery to the reef fish fishery due to increased restrictions, however, this effect will likely be minor because only a minority of vessels have dual federal reef fish and shark permits. Protected resources were also eliminated from further analyses in this section. As described in Section 3.3, biological opinions have concluded the primary reef fish gear (longline and hook-and-line) were not likely to jeopardize sea turtles or small tooth sawfish. Because actions considered in this amendment are not expected to change how reef fish fishing gear is used in the prosecution of the reef fish fishery, any take associated with reef fish fishing should not exceed that considered in biological opinions. All other Endangered Species Act (ESA)-listed species heave been found not likely to be adversely affected or not affected by the reef fish fishery. For marine mammals, gear used in the reef fish fishery were classified in the as Category III fisheries (see Section 3.3). This means this fishery has minimal impacts on marine mammals. Dealers and consumers (wholesale/retail) were eliminated because this action affects the recreational sector of the reef fish fishery. The actions in this amendment will not change the IFQ programs and commercial quotas the wholesale/retail business relies on. Thus, pounds needed to support dealers and the consumers who rely on obtaining their seafood from dealers should not be affected.

Table 4.8.4. VECs considered, consolidated, or not included for further evaluation.

VECs considered for further evaluation	VECs consolidated for further evaluation	VECs not included for further evaluation
Habitat	Hard bottom EFH	
Managed resources - red snapper - other reef fish species	Red snapper Other reef fish Prey species Competitors Predators	Sharks Protected species
Vessel owner, captain and crew - Commercial - For-hire	Vessel owner Captain Crew	
		Wholesale/retail Dealers and consumers
Anglers		
Infrastructure	Fishing Communities Fishing support businesses (ice and gear suppliers, marinas, fuel docks)	
Administration	Federal Rulemaking Federal Permitting Federal Education State Rulemaking/Framework State Education	

The following discussion refers to the effects of past, present, and RFFAs on the various VECs.

Habitat

Essential fish habitat, as defined in the GMFMC (2004a), for the Reef Fish FMP consists of all Gulf estuaries; Gulf waters and substrates extending from the US/Mexico border to the boundary between the areas covered by the Gulf of Mexico and the South Atlantic fishery management councils from estuarine waters out to depths of 100 fathoms. Section 3.2 and GMFMC (2004a) describe the physical environment inhabited by red snapper as well as reef fish in general. Red snapper is a carnivorous bottom dweller, generally associated (as adults) with hard-bottom substrates, submarine gullies and depressions, and oilrigs and other artificial structures (GMFMC 2004a). Eggs and larvae are pelagic while juveniles are found associated with bottom features or over barren bottom.

From fishing, the most sensitive gear/habitat combinations include EFH for reef fish species. These include fish otter trawls, shrimp otter trawls, roller frame trawls, and pair trawls over coral reefs; crab scrapes over coral reefs; oyster dredges over submerged aquatic vegetation (SAV), oyster reefs, or coral reefs; rakes over coral reefs; and patent tongs over SAV, oyster reefs, or coral reefs (GMFMC 2004a). Some of these gear/habitat interactions are unlikely to occur in actual practice (e.g., shrimp trawls towed through hard bottom areas can destroy shrimp nets and so are avoided). In general, gears that are actively fished by towing have the highest potential to alter habitats. However, some habitats, such as coral reefs and hard bottoms are sensitive to interactions with passive gears (e.g. traps) as well. Most directed reef fish fishing activities, as

described in Section 4.1.1, use longlines and handlines, although a few fish are taken by spearfishing gear. These have low levels of impacts compared to other gears.

In the past, some fishing practices have had detrimental effects on the physical environment. Gears such as roller trawls and fish traps damaged habitats while harvesting fish species. As a result of these effects, the Council developed stressed areas to reduce these impacts. Further protections have been developed, primarily by either prohibiting fishing or limiting fishing activities that can occur within certain areas. Detailed information on the the closures and preserves is provided in the February 2010 Regulatory Amendment (GMFMC 2010). In addition, regulatory changes through Generic EFH Amendment 3 (GMFMC 2005b; implemented in 2006) prohibited bottom anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots to protect coral reefs in several HAPCs, and required a weak link in the tickler chain of bottom trawls on all habitats throughout the Gulf EEZ to minimize damage done to habitats should the chain get hung up on natural bottom structures.

Current allowable gear types can adversely affect hard bottom areas; however, these impacts are not considered great (See Section 4.1.1). Handline gear and longlines used in the reef fish fishery can damage habitat through snagging or entanglement. Longlines can also damage hard bottom structures during retrieval as the line sweeps across the seafloor. Additionally, anchoring over hard-bottom areas can also affect benthic habitat by breaking or destroying hard bottom structures. However, these gears are not believed to have much negative impact on bottom structures and are considerably less destructive than other commercial gears, such as traps and trawls, which are not allowed for reef fish fishing.

Damage caused from reef fish fishing, although minor, is associated with the level of fishing effort (see Section 4.1.1). Therefore, actions reducing levels of effort would result in greater benefits to the physical environment because fishing related interactions with habitat would be reduced. Thus, actions described in steps 3 and 4 of this CEA which have reduced fishing effort for some species, and possibly the fishery on the whole, have had a positive effect on hard bottom habitats. RFFAs, such as Amendments 28 and 40, should also benefit these habitats as they would also reduce or limit fishing effort. As described in Section 4, effects on the physical environment from the proposed actions would likely be minimal because prosecution of the fishery should not be changed.

Reef fish EFH, particularly coral reefs and SAVs, are particularly susceptible to non-fishing activities (GMFMC 2004a). The greatest threat comes from dredge-and-fill activities (ship channels, waterways, canals, and coastal development). Oil and gas activities as well as changes in freshwater inflows can also adversely affect these habitats. As described in Step 4d of this cumulative effects analysis, the potential harm to reef fish habitat was highlighted by the Deepwater Horizon MC252 incident (http://response.restoration.noaa.gov/deepwaterhorizon). Essential fish habitat and HAPC designations cited in Section 3.2, GMFMC (2005b), and GMFMC (2010) and are intended to promote careful review of proposed activities that may affect these important habitats to assure that the minimum practicable adverse impacts occur on EFH. However, NMFS has no direct control over final decisions on such projects. The cumulative effects of these alternatives depend on decisions made by agencies other than NMFS, as NMFS and the Gulf Council have only a consultative role in non-fishing activities. Decisions

made by other agencies that permit destruction of EFH in a manner that does not allow recovery, such as bulkheads on former mangrove or marine vegetated habitats, would constitute irreversible commitments. However, irreversible commitments should occur less frequently as a result of EFH and HAPC designations. Accidental or inadvertent activities such as ship groundings on coral reefs or propeller scars on seagrass could also cause irreversible loss.

At this time, it is unclear what effects climate change will have on red snapper EFH. Factors associated with climate change such as ocean acidification could negatively affect important biotic components of red snapper EFH such as corals (IPCC 2014). Hollowed et al. (2013) has identified important ecosystem paths that deserve future study to determine climate change cause and effects.

Managed Resources

There are 31 species of reef fish managed in the Gulf EEZ, and of the species where the stock status is known, four of the eleven species are considered overfished (gag, greater amberjack, gray triggerfish, and red snapper; see Section 3.3). Recent actions for these overfished stocks have ended overfishing and set or continued rebuilding plans (e.g., Amendments 27, 32, 35, and 37).

In the past, the lack of management of reef fish allowed many stocks to undergo both growth and recruitment overfishing. This has allowed some stocks to decline as indicated in numerous stock assessments (Section 3.3). Red snapper have been considered overfished since the first stock assessment in 1986. For red snapper, management measures including a minimum size limit, commercial quota, and aggregate bag limit were put in place as part of the initial Reef Fish FMP or Amendment 1 (Section 3.1). None of these measures halted increases in landings. However, over time, management measures have become more restrictive and held landings more closely to the quotas.

The present harvest levels are based on a rebuilding plan put in place by Amendment 27 which shifted the plan from a constant catch to a constant fishing mortality plan. The current plan, after an initial reduction in the total allowable catch from 9.12 mp to 5 mp, has allowed harvests to increase as the stock rebuilds. These measures have also limited the red snapper harvest sufficiently to end overfishing on the stock. In addition, the red snapper IFQ program has successfully held landings by the commercial sector below its quota. However, these measures, along with other IFQ programs for grouper and tilefish (Amendment 29) may have, at least for the commercial sector, redirected effort towards other non-IFQ managed reef fish species such as gray triggerfish and greater amberjack by fishermen without IFQ shares or allocation. Landings of these non-IFQ managed species are closely managed to prevent them from exceeding their ACLs and protects them from overharvest. In fact, measures for gray triggerfish and greater amberjack allow the fishery to be closed if the harvest is projected to meet their respective commercial and recreational quotas.

Fishery management RFFAs are expected to benefit managed species. These actions are expected to manage the stocks at OY per National Standard 1 and are described in steps 3 and 4 of this CEA. Although this amendment and Amendments 28, 36, and 39 do not specifically

address overfishing of red snapper, they are intended to improve the management of the commercial and recreational sectors in ways that are likely to better keep harvests within the quotas. Other RFFAs described in steps 3 and 4 similarly do not specifically address overfishing but are intended to improve the management of reef fish stocks either through revising ACLs, improving data reporting, or allowing more flexibility in management.

Non-fishing activities are likely to adversely affect reef fish stocks as listed in Step 4d. For example, LNG facilities are being proposed in the western and northern Gulf. As described in Step 4d, these facilities can have a negative effect on species with pelagic larvae, like most reef fish species. To mitigate the effects of these facilities, closed- rather than open-loop systems are being called for. At this time, the effect of LNG facilities is unknown and is likely to be less for reef fish species than other more coastal species such as red drum. Other factors such as climate change, hurricanes, and oil and gas extraction could have detrimental effects on reef fish species, but these effects are poorly understood.

Vessel Owner, Captain, and Crew (Commercial and For Hire)

Adverse or beneficial effects of actions on vessel owners, captains, and crew are tied to the ability of a vessel to make money. In commercial fisheries, these benefits are usually derived from shares awarded after fishing expenses are accounted for. The greater the difference between expenses and payment (revenue) for harvested fish, the more profit is generated by the fishing vessel. For-hire businesses generate revenue by selling either at the vessel level (charter businesses) or passenger level (headboats).

The commercial fishery has benefited from past actions in the reef fish fishery relative to this action. Prior to 1990, entry into the reef fish fishery was unhindered by regulation. To constrain harvest in order to prevent overexploitation of reef fish in general and red snapper specifically, the Council implemented size limits, quotas, seasonal closures, and a permit moratorium. These measures have produced limited success. For red snapper, the commercial quota was overrun 10 times until the IFQ program established in 2007 (Table 3.1.2).

Current management measures have had an overall positive, short-term impact on the red snapper component of the commercial sector. Landing restrictions were needed to keep the commercial red snapper harvest within its quota and primarily took the form of short mini-seasons (Hood et al. 2007). The mini-seasons kept many commercial vessels from taking more fishing trips during these years limiting fishing effort. With the advent of the IFQ program, fishermen with red snapper allocation were able to haveflexibility in when and where they could fish. It also stopped the commercial quota from being exceeded. However, this program adversely affected fishermen who did not qualify for the initial distribution of IFQ shares. These fishermen have been required to purchase IFQ shares or allocation if they wished to harvest red snapper.

For other overfished reef fish stocks other than red snapper, rebuilding measures required to end this condition and rebuild stocks have constrained the harvest for these species over the short-term and likely increased competition within the commercial sector to harvest other stocks.

However, by using constant fishing mortality rebuilding plans, harvests have been allowed to increase as the stocks recover.

Non-FMP factors have adversely affected the reef fish commercial and for-hire fleets. Imports can cause fishermen to lose markets when fishery closures occur as dealers and processors use imports to meet consumer demand. Consumer comfort with imports can then limit the price fishermen receive when harvest is allowed. Other factors that have had an adverse effect on the commercial fishery include hurricanes and increases in fishing costs, such as fuel, which may have pushed marginal fishing operations out of business (see step 4d). Hurricanes are unpredictable and localized in their effects. Increases in fishing costs, unless accompanied by an increase in prices or harvest quantity, decrease the profitability of fishing.

The for-hire component has benefited from past actions in the reef fish fishery relative to this action. This increase has been fueled by increased interest by the public to go fishing (i.e., more trips sold) as evidenced by an almost three-fold increase in recreational fishing effort since 1986 (SEDAR 12 2007). To constrain harvest in order to prevent overexploitation of reef fish in general and red snapper specifically, NMFS, through the Council, implemented minimum size and bag limits for most species prior to 2000. In addition, a recreational red snapper quota was implemented in 1997 and a permit moratorium to constrain the recreational effort from the for-hire industry in 2003. These measures have met with limited success toward ending overfishing.

Current management measures may have had a negative, short-term impact on the for-hire component of the reef fish fishery. Landing restrictions have been needed to keep the recreational red snapper harvest within its quota. These restrictions include a reduced bag limit and seasonal closures. These measures may have reduced interest by the public to take for-hire fishing trips and possibly resulted in a reduction in the number of trips taken, as shown in Table 4.4.2 (although the Deepwater Horizon MC252 oil spill may also be partly responsible for the decrease in trips). In addition, the restriction requiring a person aboard a federally-permitted Gulf for-hire reef fish vessel to comply with federal regulations for reef fish species regardless of where the fish are harvested (GMFMC 2008b), may have reduced the ability of federally permitted for-hire operators to sell trips because of longer non-compliant state fishing seasons. However, as discussed in Section 4, the creation of the two recreational components may allow for more federal fishing days for the federal for-hire component. Other factors that have had an adverse effect on the for-hire component of the reef fish fishery include increases in fishing costs, such as fuel, and hurricanes which may have pushed marginal fishing operations out of business (see step 4d). However, these factors may be less important than may seem apparent. For the red snapper for-hire component, reductions in charter fishing from more restrictive regulations, increased costs, and effects from hurricanes were claimed by the industry (GMFMC 2007). But red snapper data for 2007 found only lingering effects of the 2005 hurricanes; annual average effort for 2004 through 2005 were only slightly greater than in 2007. Although the available data cannot address claims of severe economic losses by individual entities, this data does not support contentions of widespread industry harm. However, for red snapper, effort may have shifted to other species or other charter businesses.

As mentioned in Section 2 and the economic and social effects analyses in Section 4, Magnuson-Stevens Act §407(d)(1) requires recreational or commercial red snapper fishing to end when a

sector catches its quota. The recreational sector includes both the federal for-hire and private angling components. Thus, if the private angling component exceeds its allocation of the recreational quota to such an extent that the overall recreational quota is projected to be met, the federal for-hire component would also be prohibited from retaining red snapper regardless of whether there is remaining quota available for that component. Reduced season lengths in the following year for the federal for-hire components could be further exacerbated by overage adjustments from exceeding the quota and non-compatible state fishing seasons. However, the likelihood of overages is reduced because each component's season will be based on the lower recreational ACT rather than the recreational quota.

Many RFFAs are likely to have a short-term negative impact on the for-hire component. Red snapper, gray triggerfish, greater amberjack, and gag have experienced overfishing, are considered overfished, and are being managed under stock rebuilding plans. Measures required to end overfishing and rebuild these stocks have constrained the harvest for these species. If these measures result in less interest by the fishing public to take fishing trips on for-hire vessels, then this will adversely affect this sector. However, as mentioned above, this effect has not been apparent for red snapper because the for-hire component has the ability to shift to other species. The ability to shift to other species would be expected to continue in response to subsequent RFFAs, though the flexibility would be reduced the more species that become subject to increased restrictions. Some short-term beneficial actions include an increase in TAC and relaxation of management measures for red grouper and vermilion snapper, as these stocks have recovered from overfishing and harvest restrictions have been relaxed.

Because many management RFFAs are designed to manage stocks at OY, these actions should be beneficial to the for-hire component. Stocks would be harvested at a sustainable level, and at higher levels for those stocks being rebuilt. If allocation between components, as proposed in this amendment, favors the for-hire component, this could provide additional red snapper fishing days and allow for more trips for this component. Specific to red snapper fishing, Amendments 28, 41, and 42 evaluate changing the commercial and recreational red snapper allocation and implementing some type of regional management of the recreational sector, respectively. In Amendment 28, the alternatives for shifting the allocation would decrease the commercial percentage and increase the recreational percentage of the stock ACL. Depending how these shifts are put in place, they could adversely affect the commercial sector if the commercial quota is reduced. The recreational sector, including the federal for-hire component, would benefit from increased quotas. Regional management would affect the recreational sector only in Amendment 39. Depending on how the recreational quota is allocated among states and the management measures implemented by the states, the effects on the federal for-hire component could be beneficial or adverse depending on where a vessel operator fishes.

Non-management-related RFFAs that could affect the for-hire component include hurricanes, oil and gas extraction, and increases in fishing costs. Hurricanes are unpredictable and localized in their effects. Oil spills, which are also unpredictable, can have extensive adverse impacts over large areas as evidenced by the Deepwater Horizon MC252 spill. Increases in fishing costs, unless accompanied by an increase in the price charged per trip or the number of trips, decrease the profitability of fishing.

Anglers

It is estimated that 3.1 million residents of Gulf States participated in marine recreational fishing (NMFS 2013a). Red drum and spotted sea trout are the species most commonly reported as target species by these anglers, with approximately 35% and 33% of interviewed anglers reporting targeting these species, respectively. The most commonly caught non-bait species across all waters of the Gulf were spotted seatrout, red drum, sand seatrout, Atlantic croaker, and gray snapper. In federal waters, the most commonly harvested species are white grunt, red grouper, red snapper, gag, and yellowtail snapper. As summarized in Holiman (2000), the typical angler in the Gulf is 44 years old, male (80%), white (90%), and employed full-time (92%). They have a mean income of $42,700, and have fished in the state for an average of 16 years. The average number of trips taken in the 12 months preceding the interview was about 38 and these were mostly (75%) one-day trips with average expenditure of less than $50. Seventy-five percent of interviewed anglers reported that they held salt-water licenses, and 59 percent owned boats used for recreational saltwater fishing. More recent comparable statistics are not available.

The effects of various past, present, and RFFAs on anglers are measured through levels of participation in the fishery. Measures that reduce participation are negative and measures that increase participation are positive. However, it is difficult to assess what affects past and present management measures have had on anglers because available data indicates the amount of effort by the private sector has increased. This increase has been from approximately 6.8 million trips in 1981 to over 14 million trips from in 2003 to 2009 (Rios 2013). The number of angler trips declined from 14,356,523 angler trips in 2009, to 13,548,899 in 2010, and 13,874,314 in 2011. The decline in 2010 and 2011 is likely due to the Deepwater Horizon MC252 oil spill. The effects of various management measures on the participation by anglers is likely similar to the effects on the for-hire industry discussed above with the exception that private anglers are not subject to permit restrictions on where they can fish that federally permitted for-hire vessel operators are (see above section). However, as discussed in Sections 4.1.3 and 4.1.4, the creation of the two recreational components may further restrict the number of federal fishing days for the private angling component due to non-compatible state season lengths. Factors unrelated to management, such as hurricanes and increasing fuel and other costs, likely affect private anglers similar to for-hire fishermen. It should be noted that a possible effect of the proposed action could be constraining most of the private angling to state waters if state non-compatible seasons continue. If the private angling allocation is too low, then a greater proportion of private angling fish would be caught in state waters, reducing the days available to fish in federal waters.

As mentioned above in the discussion of the vessel owner, captain, and crew above as well as in Section 2 and the economic and social effects analyses in Section 4, Magnuson-Stevens Act §407(d)(1) requires recreational or commercial red snapper fishing to end when a sector catches its quota. The recreational sector includes both the federal for-hire and private angling components. Thus, if the federal for-hire component exceeds its allocation of the recreational quota to such an extent that the overall recreational quota is projected to be met, the private angling component would also be prohibited from retaining red snapper regardless of whether there is remaining quota available for that component. Reduced federal season lengths for the private angling component in the following year could be further exacerbated by overage

adjustments if the quota is exceeded and non-compatible state fishing seasons. However, the likelihood of this occurring is reduced because each component's season will be based on the lower recreational ACT rather than the recreational quota.

Two RFFAs specific to red snapper fishing, Amendments 28 and 41 evaluate changing the commercial and recreational red snapper allocation and implementing some type of regional management of the recreational sector, respectively. In Amendment 28, the alternatives for shifting the allocation would decrease the commercial percentage and increase the recreational percentage of the stock ACL. The recreational sector, including the private angling component, would benefit from increased quotas. Amendment 41 would provide management measures for the charter for-hire vessels regarding the harvest of red snapper.

Non-management-related RFFAs that could affect anglers include hurricanes, oil and gas extraction, and increases in fishing costs. Hurricanes are unpredictable and localized in their effects. Oil spills, which are also unpredictable, can have extensive adverse impacts over large areas as evidenced by the Deepwater Horizon MC252 spill. Increases in fishing costs as well as lost fishing opportunities would likely reduce the amount of angler effort.

Infrastructure

Infrastructure refers to fishing-related businesses and includes marinas, rentals, snorkel and dive shops, boat dockage and repair facilities, tackle and bait shops, fish houses, and lodgings related to recreational fisheries industry. This infrastructure is tied to the commercial and recreational fisheries and can be affected by adverse and beneficial economic conditions in those fisheries. Therefore, the effects of past, present, and RFFAs should reflect responses by the fisheries to these actions. Past actions allowing the recreational and commercial fisheries to expand have had a beneficial effect providing business opportunities to service the need of these industries. Present actions which have constrained the commercial fisheries likely have had an adverse effect because lower revenues generated from the fishery would be available to support the infrastructure. However, as conditions improve for the fishery as described above through RFFAs, similar benefits should be accrued by the businesses comprising the infrastructure. For the recreational sector, as stated above, it is difficult to assess the impact of present and RFFAs since angler participation has increased until recently. Actions enhancing this participation should also be beneficial to the infrastructure. However, it should be noted the Council has been receiving public testimony that participation may be declining as fuel prices increase and may be reflected in the decline in the number of angler trips. It should be noted that non-FMP factors such as the Deepwater Horizon MC252 oil spill (IAI 2012) and climate change (http://www.nefsc.noaa.gov/ecosys/climate_change/implications.html) may adversely affect fishing communities, particularly those communities considered more vulnerable.

Administration

Administration of fisheries is conducted through federal (including the Council) and state agencies which develop and enforce regulations, collect data on various fishing entities, and assess the health of various stocks. As more regulations are required to constrain stock exploitation to sustainable levels, greater administration of the resource is needed. The NMFS

Office of Law Enforcement, in cooperation with state agencies, would continue to monitor regulatory compliance with existing regulations and NMFS would continue to monitor both recreational and commercial landings to determine if landings are meeting or exceeding specified quota levels. Further, stock status needs to be periodically assessed to ensure stocks are being maintained at proper levels. Some present actions have assisted the administration of fisheries in the Gulf. In 2007, an IFQ program was implemented for the commercial red snapper fishery, requiring NMFS to monitor the sale of red snapper IFQ shares. Recordkeeping requirements for IFQ shares have improved commercial quota monitoring and prevent or limit overages from occurring. A vessel monitoring system was also implemented for all commercial reef fish vessels in 2007 and is helping enforcement identify vessels violating various fishing closures. The recent implementation of ACLs and AMs for most federally managed species has required close monitoring of landings. For some species, harvest is closed if landings are projected to exceed the ACL within the season. For others, quotas or ACLs need to be adjusted during the following season to account for any ACL overages that occur in the preceding year.

10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.

The objective of regional management is to provide flexibility to the regions to establish management measures that account for the differences between regions while maintaining conservation equivalent measures in comparison to the current regulations. It is reasonably expected the effects on the physical environment would not change under the current management regime. It is more likely cumulative effects from this action would occur in the biological environment for red snapper stock to be overfished. Overfishing the stock would jeopardize the goals of the rebuilding plan. Changing from one to potentially five management regions through these actions could potentially lead to overharvesting the stock if proper controls on fishing are not implemented. While NMFS would still oversee the management strategies of each region to determine consistency, the regions would have authority establish various regulations. In order to avoid, minimize, or mitigate significant cumulative effects; the amendment includes Action 4 and Action 7. The alternatives in Action 4 establish a Gulf-wide minimum size limit which will simplify the regulations for enforcement. The alternatives in Action 7 provide post-season accountability measures to mitigate for a region not constraining harvest to the apportioned regional quota. The states have indicated they will implement additional monitoring programs to better estimate the recreational harvest during the open season. Action 6 minimizes and mitigates for the overharvest of red snapper by accounting for the potential overharvest and constraining harvest.

11. Monitor the cumulative effects of the selected alternative and modify management as necessary.

The implementation of regional management would require NMFS to continue monitoring the harvest of red snapper and analyzing the landings. Monitoring the harvest is necessary to determine if the quota is exceeded and to prohibit further harvest to insure the OFL is not also exceeded. It is uncertain if the regions would be able to constrain harvest within their quotas and whether the monitoring data would provide timely data to prevent overages. The timing of the data may be critical for NMFS to determine is the quota has been met. At this time, the MRIP

data is provided at two month intervals. This is problematic for analysis when the recreational red snapper season is shorter than two months. The states have indicated they will implement additional monitoring programs to provide more timely data for landings. However, to integrate new datasets into the stock assessment, the SEFSC would need to determine the monitoring programs would be compatible.

The effects of the proposed actions are, and will continue to be, monitored through collection of landings data by NMFS, stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. Landings data for the recreational sector in the Gulf of Mexico is collected through MRIP, NMFS' Headboat Survey, and the Texas Marine Recreational Fishing Survey. MRIP replaced an older system (MRFSS), and is designed to improve the monitoring of recreational fishing. Commercial data is collected through trip ticket programs, port samplers, and logbook programs; for red snapper commercial data is collected in near real-time through the IFQ system. The most recent SEDAR assessment of Gulf red snapper was in May 2014 and the next is scheduled for 2015.

Unavoidable Adverse Effects

Unavoidable adverse effects are described in detail in the cumulative effects analysis of Amendment 30B (GMFMC 2008b) and 32 (GMFMC 2011a) and is incorporated here by reference. Catch quotas, minimum size limits, bag limits, and seasonal closures, are generally effective in limiting total fishing mortality, the type of fish targeted, the number of targeted fishing trips, and/or the time spent pursuing a species. However, these management tools have the unavoidable adverse effect of creating regulatory discards. Discard mortality must be accounted for in a stock assessment as part of the allowable biological catch, and thus restricts total allowable catches.

Many of the current participants in the reef fish fishery may never recuperate losses incurred from the more restrictive management actions imposed in the short-term to end overfishing of red snapper. Because red snapper is but one of the reef fish species managed in the Reef Fish FMP, short-term losses are not expected to be significant, and other species may be substituted to make up for losses to the fishery. With the anticipated recovery of the stock, future participants in the reef fish fishery will benefit. Overall, short-term impacts of actions would be offset with much higher allowable catch levels as the stock recovers and is rebuilt.

The actions considered in this amendment should not have an adverse effect on public health or safety because these measures should not alter actual fishing practices, just which recreational component can harvest what percentage of the overall recreational quota. Unique characteristics of the geographic area are highlighted in Section 3. Adverse effects of fishing activities on the physical environment are described in detail in Section 4.1.1. This section concludes the impact on the physical environment should be minor from actions proposed in this document. Uncertainty and risk associated with the measures are described in detail in the same sections as well as assumptions underlying the analyses.

Until now, the Council has constrained recreational harvest of red snapper by establishing catch quotas, minimum size limits, bag limits, and seasonal closures which are generally effective in

limiting total fishing mortality, the type of fish targeted, the number of targeted fishing trips, and/or the time spent pursuing a species. However, these management tools have the unavoidable adverse effect of creating regulatory discards. Discard mortality must be accounted for in a stock assessment as part of the allowable biological catch, and thus restricts total allowable catches. By delegating management measures to the regions, it will be more difficult to estimate these adverse effects. The alternatives considered in this amendment for the delegated management measures provide a range for the minimum size and bag limits. However, the management measures set by the region will either directly or indirectly affect the bycatch and discards. In addition, if regions establish varying seasons, then fishing effort shift may occur. This would need to be considered for the catch and fishing effort.

Actions considered in this amendment should not have adverse effects on public health or safety because these measures should not alter actual fishing practices, just how, when, and where activities can occur. This could have indirect effects if a region selected an open season that was more impacted by non-fishing events, such as weather (i.e., winter seasons with strong cold fronts and high seas, or a core fishing season during prime Gulf hurricane season). Unique characteristics of the geographic area are highlighted in Chapter 3. Adverse effects of fishing activities on the physical environment are described in detail in Section 3.2. This section concludes little impact on the physical environment should occur from actions proposed in this document as it will not change the way in which the fishery is prosecuted. Uncertainty and risk associated with the measures are described in detail in the same sections as well as assumptions underlying the analyses.

Relationship between Short-term Uses and Long-term Productivity

The primary objective of this amendment and associated EIS is to facilitate management of the recreational red snapper component in the reef fish fishery by reorganizing the federal fishery management strategy to better account for biological, social, and economic differences among the regions of the Gulf. The relationship between short-term economic uses and long-term economic productivity are discussed in the preceding section. However, because red snapper is but one species in the reef fish complex, these effects may be mitigated through effort shifting to other species and may not be significant.

The alternatives being considered are not likely to have short-term negative effects. However, if regional management is established and the regions cannot constrain harvest of red snapper to the apportioned quota, then long-term negative effects on the biological environment could occur from overharvests. In addition, corrective action to constrain harvest could have negative impacts on the social and economic environments. The range of alternatives has varying degrees of economic costs and administrative burdens. In general, some alternatives have relatively small short-term economic costs and administrative burdens, but would also provide smaller and more delayed long-term benefits. Other alternatives have greater short-term costs, but provide larger and more immediate long-term benefits.

Mitigation, Monitoring, and Enforcement Measures

Mitigation, monitoring and enforcement measures are described in detail in the cumulative effects analysis of Amendment 30B (GMFMC 2008b) and is incorporated here by reference. Developing regional management for the harvest of recreational red snapper is expected to be a conservation equivalent to the current management strategy concerning the impacts on the physical and biological environments. The apportionment of the recreational quota to the regions (Action 6) would mitigate for overharvest by maintaining the total harvest to the Gulf-wide recreational ACL even though it is divided between regions. The minimum size limit for red snapper (Action 4) would establish a consistent minimum size throughout the Gulf for the recreational harvest of red snapper and aid enforcement. The impacts of the management strategies established by the regions would be further mitigated by specifying the range for the delegated management measures. The post-season accountability measures (Action 7) intend to mitigate the potential overharvest of recreational red snapper by encouraging the regions to constrain harvest each year to prevent a reduction of their quota for the following year.

To ensure the red snapper stock recovers to a level that supports harvests at the optimum yield, periodic reviews of stock status are needed. These reviews are designed to incorporate new information and to address unanticipated developments in the respective fisheries and would be used to make appropriate adjustments in the reef fish regulations should harvest not achieve optimum yield objectives. The details for how assessments are developed, reviewed, and applied are described in Amendment 30B, as are the rule-making options the Council and NMFS have for taking corrective actions (GMFMC 2007).

Providing regions flexibility to establish management measures is expected to benefit the social and economic environments. This action may slightly increase resources needed by the administrative environment through the increased complexity of the enforcement. This complexity develops from each region setting regulations for season, bag limit, and size limit. In contrast, the current management sets a Gulf-wide season for federal waters. Most states have previously established seasons consistent with the federal season, excluding Texas. However, Florida and Louisiana had inconsistent regulations in 2012. Thus, the current management system could increase the degree of state inconsistency. Regardless, the effects of the actions are not likely to require mitigation.

Current reef fish regulations are labor intensive for law enforcement officials. NMFS law enforcement officials work cooperatively with other federal and state agencies to keep illegal activity to a minimum. Violators are penalized, and for reef fish commercial and reef fish for-hire operators, permits required to operate in their respective fisheries can be sanctioned.

Reef fish management measures include a number of area-specific regulations where reef fish fishing is restricted or prohibited in order to protect habitat or spawning aggregations of fish, or to reduce fishing pressure in areas that are heavily fished. To improve enforceability of these areas, the Council has established a vessel monitoring system program for the commercial reef fish sector to improve enforcement. Vessel monitoring systems allows NMFS enforcement personnel to monitor compliance with these area-specific regulations, and track and prosecute violations.

Irreversible and irretrievable Commitments of Resources

There are no irreversible or irretrievable commitments of agency resources proposed herein. The actions establishing regional management are changeable by the Council at any time in the future. In addition, there are provisions for regions to opt out of regional management. These actions should better account for biological, social, and economic differences among the regions of the Gulf and provide social and economic benefits while maintaining conservation equivalent management.

Any Other Disclosures

CEQ guidance on environmental consequences (40 CFR §1502.16) indicates the following elements should be considered for the scientific and analytic basis for comparisons of alternatives. These are:

a) Direct effects and their significance.
b) Indirect effects and their significance.
c) Possible conflicts between the proposed actions and the objectives of federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned.
d) The environmental effects of alternatives including the proposed action.
e) Energy requirements and conservation potential of various alternatives and mitigation measures.
f) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.
g) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.
h) Means to mitigate adverse environmental impacts.

Items a, b, d, e, f, and h are addressed in Chapters 2 and 3, and Sections 4.1-4.7. Items a, b, and d are directly discussed in Sections 2 and 5. Item e is discussed in the economic analyses. It is unknown if these actions would result in energy conservation through fewer fishing trips; however, it is more likely to be an energy conservation equivalent. Item f is discussed throughout the document as fish stocks are a natural and depletable resource. A goal of this amendment is to make these stocks sustainable resources for the nation. Mitigations measures are discussed in Section 5.11. Item h is discussed in Chapters 3 and 5, with particular mention in Section 5.12. (further update after RIR is provided)

The other elements are not applicable to the actions taken in this document. Because this amendment concerns the management of a marine fish stock, it is not in conflict with the objectives of federal, regional, state, or local land use plans, policies, and controls (Item c). Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures (Item g) is not a factor in this amendment. The actions taken in this amendment will affect a marine stock and its fishery, and should not affect land-based, urban environments. The exception would be

the *U.S.S. Hatteras*, located in federal waters off Texas, which is listed in the National Register of Historic Places. The proposed actions are not likely to increase fishing activity and so no additional impacts to the *U.S.S. Hatteras* would be expected

With regards to the Endangered Species Act (ESA) the biological opinion (opinion) for the Reef Fish FMP, completed September 30, 2011, concluded that the continued operation of the Gulf reef fish fishery would not affect ESA-listed marine mammals or corals, and is not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, or smalltooth sawfish (NMFS 2011b). On July 10, 2014, the National Marine Fisheries Service (NMFS) published a final rule (79 FR 39855) that designated 38 occupied marine areas within the Atlantic Ocean and Gulf as critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle Distinct Population Segment. These areas contain one or a combination of nearshore reproductive habitat, winter area, breeding areas, and migratory corridors, or contain *Sargassum* habitat. NMFS concluded in September 16, 2014, memos that activities associated with the subject FMP will not adversely affect any of the aforementioned critical habitat units. The fishery managed by the FMP will either have no effect on the critical habitat due to location or methods, or will have discountable or insignificant effects that will not adversely affect the habitat's ability to perform its function.

On September 10, 2014, NMFS published a final rule to list 22 coral species under the ESA (79 FR 53851). Four of the newly listed species occur in the federal waters in the Gulf (*Mycetophyllia ferox, Orbicella annularis, O. faveolata, and O. franksi*); all were listed as threatened. In memos dated September 16, 2014, and October 7, 2014, NMFS concluded that activities associated with the subject FMP will not adversely affect any of the newly listed coral species. Threats to corals from fishing identified in the species status review included trophic effects, human-induced physical damage, and destructive fishing practices. However, given the species targeted by the fishery and the gear and methods used to harvest reef fish, NMFS determined that adverse effects to the newly listed coral species are extremely unlikely or discountable. The two previously listed *Acropora* coral species (*Acropora palmata* and *A. cervicornis*) remain protected as threatened. In the October 7, 2014, memo NMFS also determined that although the September 10, 2014, final listing rule provided some new information on the threats facing *Acropora*, none of the information suggested that the previous determinations were no longer valid.

With regards to the Marine Mammal Protection Act, fishing activities under the Reef Fish Fishery Management Plan should have no adverse impact on marine mammals (See Section 3.2). The proposed actions are not expected to substantially change the way the fishery is currently prosecuted (e.g., types of methods, gear used, etc.). Gear used by the reef fish fishery was still classified in the 2014 List of Fisheries as a Category III fishery (79 FR 14418, April 14, 2014) because it is prosecuted primarily with longline and hook-and-line gear. This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to one percent of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock, while allowing that stock to reach or maintain its optimum sustainable population.

CHAPTER 5. REGULATORY IMPACT REVIEW

[This review is completed after selection of all preferred alternatives.]

CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS

[This analysis is completed after selection of all preferred alternatives.]

CHAPTER 7. LIST OF PREPARERS

PREPARERS

Name	Expertise	Responsibility	Agency
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Stephen Holiman	Economist	Economic analyses, Regulatory Impact Review, Regulatory Flexibility Act analysis	SERO
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GMFMC = Gulf of Mexico Fishery Management Council; NOAA GC = National Oceanic and Atmospheric Administration General Counsel; SEFSC = Southeast Fisheries Science Center; SERO = Southeast Regional Office of the National Marine Fisheries Service; USCG = United States Coast Guard

CHAPTER 8. LIST OF AGENCIES, ORGANIZATIONS AND PERSONS TO WHOM A COPY OF THE EIS WAS SENT

National Marine Fisheries Service
- Southeast Fisheries Science Center
- Southeast Regional Office
- Office for Law Enforcement
- Endangered Species Division
- Domestic Fisheries Division

NOAA General Counsel

Environmental Protection Agency (Region 4 and 6)
United States Coast Guard
United States Fish and Wildlife Services
Department of Interior. Office of Environmental Policy and Compliance
Department of State, Office of Marine Conservation,
Marine Mammal Commission

Texas Parks and Wildlife Department
Alabama Department of Conservation and Natural Resources/Marine Resources Division
Louisiana Department of Wildlife and Fisheries
Mississippi Department of Marine Resources
Florida Fish and Wildlife Conservation Commission

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APPENDIX A. ALTERNATIVES CONSIDERED BUT REJECTED

REMOVED AT APRIL 2013 COUNCIL MEETING:

Two alternatives from **Action 2 – Establish Regions for Management**

Alternative 3: Establish an east (Florida, Alabama) and west (Mississippi, Louisiana, Texas) region and allow for different management measures for each region.
* ALTERNATIVE 3 (ABOVE) SUBSEQUENTLY REPLACED IN ACTION 2 AT OCTOBER 2013 COUNCIL MEETING.

Alternative 4: Establish three regions representing the west (Texas), north (Louisiana, Mississippi, Alabama), and east (Florida) region and allow for different management measures for each region.

Remove entire Action 7:
Action 7 – In-Season Accountability Measure Establishing Regional Closures in the EEZ
*Note: Both **Alternative 2** and **Alternative 3** could be selected as Preferred Alternatives.

Alternative 1: No action. When the recreational red snapper quota is reached, or is projected to be reached, the National Marine Fisheries Service (NMFS) files a notification with the Office of the Federal Register that prohibits the recreational harvest of red snapper in the economic exclusive zone (EEZ) for the remainder of the fishing year.

Alternative 2: If a region, as defined in Action 2, establishes an approved regional regulations, NMFS has the authority to alter the recreational red snapper season in the EEZ off those states (including a zero-day season) by the amount necessary to compensate for the additional harvest that would occur in state waters as a result of the region's regulations. (Boundaries for the EEZ off each state are in Figure 1.2.1.)

Alternative 3: If a region, as defined in Action 2, does not have an approved regional regulations and establishes regulations inconsistent with federal red snapper regulations, NMFS has the authority to adjust the recreational red snapper season in the EEZ off those states (including a zero day season) by the amount necessary to compensate for the additional harvest that would occur in state waters as a result of the region's inconsistent regulations. (Boundaries for the EEZ off each state are in Figure 1.2.1.)

Discussion:
Under current management, state and federal waters Gulf wide are open during the red snapper season. If the regions, as defined in Action 2, set their own fishing seasons through an approved management plan or inconsistent regulations, some areas of the Gulf could be open while other areas are closed. This action allows the Council to extend boundary lines of state waters into the EEZ, to correspond with the regions. These boundaries would enable NMFS to close federal

waters off of a region when its regional quota has been reached. Or, the boundaries could be used to close a portion of the EEZ off a state or region that establishes inconsistent regulations. This in-season accountability measure would help prevent the annual catch limit from being exceeded. The in-season and post-season (Action 6) accountability measures are not mutually exclusive and could be used together where appropriate. Further information on accountability measures is described in the Generic ACL/AM Amendment in Section 2.8 (GMFMC 2011).

In March 2013, NMFS implemented a temporary emergency rule that gives NMFS the authority to set separate closure dates for the recreational red snapper season in federal waters off individual Gulf states (Figure 1.2.1). This action was requested by the Council to provide a fairer and more equitable distribution of recreational red snapper fishing opportunities among anglers in all the Gulf states for the 2013 season. Although a temporary emergency rule will be in effect for the 2013 season, it will not be used as the analytical baseline. The temporary emergency rule, even if extended, would not be effective for the 2014 red snapper recreational fishing season.

Alternative 1 would continue the current method of determining the closure date for the recreational red snapper season and apply that date to all federal waters of the Gulf. NMFS determines the length of the season based on the quota, average weight of fish, and estimated catch rates. Because NMFS must ensure the entire stock harvest does not exceed the quota, including harvest in state waters, if states establish less restrictive regulations, the federal season must be adjusted to account for the additional expected harvest. For example, when calculating the projected 27-day 2013 season length, NMFS adjusted the mean catch rate to account for the year-round open season in state waters and 4-fish bag limit in Texas (SERO 2012). In addition, Louisiana has proposed an 88-day season with a 3-fish bag limit and Florida has proposed a 44-day season with a 2-fish bag limit in state waters. Based on the estimated catch rate with those regulations in the three state waters, the 2013 federal recreational red snapper season could be reduced to 22 days (SERO 2013). After the 22-day season, the entire EEZ would be closed for the recreational harvest of red snapper.

Both **Alternative 2** and **Alternative 3** would use regions developed in Action 2 to establish boundaries and allow NMFS to set different closure dates for the red snapper recreational season in the EEZ adjacent to each Gulf state. If the Council chooses to delegate management to the regions in Action 1 and Action 4, then there may be a review process to assess if the region's management plan is consistent with the goals of the FMP and red snapper rebuilding plan. A specific process would need to be established for plan approval. **Alternative 2** would apply to regions with approved management plans. If the region has an approved management plan, but the regional quota is determined to be met before the planned season closure, then NMFS could close the harvest in federal waters to prevent overharvest. **Alternative 3** would apply to regions that do not have an approved management plan and establishes regulations inconsistent with the federal regulations. If a region were to set red snapper regulations that were not less restrictive than federal regulations, NMFS would calculate the red snapper recreational season within those boundaries using an adjusted catch rate, to account for a longer season or larger bag limit in state waters. In some cases, this could allow the EEZ off regions with consistent regulations to have more days than if the season for the entire Gulf was adjusted. For example, if the 2013 federal season was reduced off Texas, Louisiana, and Florida to account for inconsistent regulations in

those waters, the federal seasons could be as follows: Texas = 12 days, Louisiana = 8 days, Mississippi = 28 days, Alabama = 28 days, and Florida = 21 days (SERO-LAPP-2013-2). If increased catch from a region with inconsistent regulations exceeds its sub-quota regardless of the adjacent EEZ being closed, then NMFS may need to adjust the federal season in other regions to account for harvest. Conversely, if a state were to implement regulations in state waters that were more restrictive than federal regulations, the federal season in the EEZ off that state could potentially be increased. The Council could choose both **Alternative 2** and **Alternative 3** to address situations where a region or state may or may not have an approved management plan.

If the current regulations are maintained (**Alternative 1**), they could confound the goals of regional management. If regions set varying seasons, it is possible the activities of one or more regions could exceed the recreational sector quota before another region's season occurs. In turn, NMFS would close the remainder of the season to prevent over-fishing. When the total recreational quota is met, all recreational harvest of red snapper would be prohibited regardless of whether one or more regions have reached their respective apportionments. By establishing varying closed areas, the enforcement issues would likely increase. Recreational fishermen would need to abide by the area closures and be mindful of transiting through closed areas. Provisions for transit through closed areas may need to be considered. If the EEZ was closed off a region due to inconsistent regulations (**Alternative 3**), then a clear definition of the state/federal boundary would help recreational fishermen to insure compliance. Currently, this boundary is the 9-nautical mile buffer off of Texas and Florida, and 3-nautical mile buffer off or Alabama, Mississippi, and Louisiana.

REMOVED AT OCTOBER 2014 COUNCIL MEETING:
Options a and b from Alternatives 2, 3, and 4, in Action 6: Post-Season Accountability Measures (AMs) Adjusting for Regional Overages

Option a: Apply the quota adjustment beginning one year after the implementation of the plan.
Option b: Apply the quota adjustment beginning two years after the implementation of the plan.

These options were removed because they are now less restrictive than the overage adjustment recently adopted in the Framework Action to Set Accountability Measures for Red Snapper (GMFMC 2014).

RESTRUCTURING OF ACTIONS AND ALTERNATIVES FOLLOWING OCTOBER 2014 COUNCIL MEETING:
[To be inserted following review of updated actions and alternatives.]

References cited in rejected sections

GMFMC. 2011. Final generic annual catch limits/accountability measures amendment for the Gulf of Mexico fishery management council's red drum, reef fish, shrimp, coral and coral reefs fishery management plans, including environmental impact statement, regulatory impact review, regulatory flexibility analysis, and fishery impact statement. Gulf of Mexico Fishery Management Council. Tampa, Florida.

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APPENDIX B. OTHER APPLICABLE LAW

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.) provides the authority for fishery management in federal waters of the exclusive economic zone. However, fishery management decision-making is also affected by a number of other federal statutes designed to protect the biological and human components of U.S. fisheries, as well as the ecosystems that support those fisheries. Major laws affecting federal fishery management decision-making are summarized below.

Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (APA) (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Under the APA, the National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the *Federal Register* and to solicit, consider, and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day waiting period from the time a final rule is published until it takes effect.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state's coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NMFS regulations at 15 C.F.R. part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state's coastal zone, NMFS is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

Upon submission to the Secretary, NMFS will determine if this plan amendment is consistent with the Coastal Zone Management programs of the states of Alabama, Florida, Louisiana, Mississippi, and Texas to the maximum extent possible. Their determination will then be submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs for these states.

Data Quality Act

The Data Quality Act (DQA) (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

Specifically, the DQA directs the Office of Management and Budget to issue government wide guidelines that "provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies." Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: 1) ensure information quality and develop a pre-dissemination review process; 2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and 3) report periodically to Office of Management and Budget on the number and nature of complaints received.

Scientific information and data are key components of fishery management plans (FMPs) and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the Act, FMPs and amendments must be based on the best information available. They should also properly reference all supporting materials and data, and be reviewed by technically competent individuals. With respect to original data generated for FMPs and amendments, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended, (16 U.S.C. Section 1531 et seq.) requires federal agencies use their authorities to conserve endangered and threatened species. The ESA requires NMFS, when proposing a fishery action that "may affect" critical habitat or endangered or threatened species, to consult with the appropriate administrative agency (itself for most marine species, the U.S. Fish and Wildlife Service for all remaining species) to determine the potential impacts of the proposed action. Consultations are concluded informally when proposed actions may affect but are "not likely to adversely affect" endangered or threatened species or designated critical habitat. Formal consultations, including a biological opinion, are required when proposed actions may affect and are "likely to adversely affect" endangered or threatened species or adversely modify designated critical habitat. If jeopardy or adverse modification is found, the consulting agency is required to suggest reasonable and prudent alternatives.

On September 30, 2011, the Protected Resources Division released a biological opinion which, after analyzing best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC 252 oil release event in the northern Gulf of Mexico), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf of Mexico reef fish fishery is also not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011). On December 7, 2012, NMFS published a proposed rule to list 66 coral species under the ESA and reclassify *Acropora* from threatened to endangered (77 FR 73220). In a memorandum dated February 13, 2013, NMFS determined the reef fish fishery was not likely to adversely affect *Acropora* because of where the fishery operates, the types of gear used in the fishery, and that other regulations protect *Acropora* where they are most likely to occur.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas, and on the importing of marine mammals and marine mammal products into the United States. Under the MMPA, the Secretary of Commerce (authority delegated to NMFS) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea and marine otters, polar bears, manatees, and dugongs.

Part of the responsibility that NMFS has under the MMPA involves monitoring populations of marine mammals to make sure that they stay at optimum levels. If a population falls below its optimum level, it is designated as "depleted," and a conservation plan is developed to guide research and management actions to restore the population to healthy levels.

In 1994, Congress amended the MMPA, to govern the taking of marine mammals incidental to commercial fishing operations. This amendment required the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction, development and implementation of take-reduction plans for stocks that may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fisheries, and studies of pinniped-fishery interactions.

Under Section 118 of the MMPA, NMFS must publish, at least annually, a List of Fisheries that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. The categorization of a fishery in the List of Fisheries determines whether participants in that fishery may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. The primary gears used in the Gulf of Mexico reef fish fishery are classified in the updated 2012 MMPA List of Fisheries as Category III fishery (74 FR 73912). The conclusions of the most recent List of Fisheries for gear used by the reef fish fishery can be found in Section 3.3.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501 et seq.) regulates the collection of public information by federal agencies to ensure the public is not overburdened with information requests, the federal government's information collection procedures are efficient, and federal agencies adhere to appropriate rules governing the confidentiality of such information. The PRA requires NMFS to obtain approval from the Office of Management and Budget before requesting most types of fishery information from the public. Action 2 adds reporting and monitoring requirements to the list of post-season accountability measures that can be implemented or changed under the framework procedure and may have PRA consequences.

Executive Orders

E.O. 12630: Takings

The Executive Order on Government Actions and Interference with Constitutionally Protected Property Rights that became effective March 18, 1988, requires each federal agency prepare a Takings Implication Assessment for any of its administrative, regulatory, and legislative policies and actions that affect, or may affect, the use of any real or personal property. Clearance of a regulatory action must include a takings statement and, if appropriate, a Takings Implication Assessment. The National Oceanic and Atmospheric Administration Office of General Counsel will determine whether a Taking Implication Assessment is necessary for this amendment.

E.O. 12866: Regulatory Planning and Review

Executive Order 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all fishery regulatory actions that either implement a new fishery management plan or significantly amend an existing plan (See Chapter 5). RIRs provide a comprehensive analysis of the costs and benefits to society of proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Analysis. A regulation is significant if it a) has an annual effect on the economy of $100 million or more or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments and communities; b) creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency; c) materially alters the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or d) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

E.O. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

This Executive Order mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions. The Executive Order is described in more detail relative to fisheries actions in Section 3.5.1.

E.O. 12962: Recreational Fisheries

This Executive Order requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council (Council) responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The Council also is responsible for developing, in cooperation with federal agencies, States and Tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

E.O. 13132: Federalism

The Executive Order on Federalism requires agencies in formulating and implementing policies, to be guided by the fundamental Federalism principles. The Order serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This Order is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate state, tribes, and local entities (international, too).

E.O. 13158: Marine Protected Areas

This Executive Order requires federal agencies to consider whether their proposed action(s) will affect any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural or cultural resource within the protected area. There are several marine protected areas, habitat areas of particular concern, and gear-restricted areas in the eastern and northwestern Gulf of Mexico.

Essential Fish Habitat

The amended Magnuson-Stevens Act included a new habitat conservation provision known as essential fish habitat (EFH) that requires each existing and any new FMPs to describe and identify EFH for each federally managed species, minimize to the extent practicable impacts from fishing activities on EFH that are more than minimal and not temporary in nature, and identify other actions to encourage the conservation and enhancement of that EFH. To address these requirements the Council has, under separate action, approved an Environmental Impact Statement (GMFMC 2004) to address the new EFH requirements contained within the Magnuson-Stevens Act. Section 305(b)(2) requires federal agencies to obtain a consultation for any action that may adversely affect EFH. An EFH consultation will be conducted for this action.

References

GMFMC. 2004. Final environmental impact statement for the generic essential fish habitat amendment to the following fishery management plans of the Gulf of Mexico: shrimp fishery of the Gulf of Mexico, red drum fishery of the Gulf of Mexico, reef fish fishery of the Gulf of Mexico, stone crab fishery of the Gulf of Mexico, coral and coral reef fishery of the Gulf of Mexico, spiny lobster fishery of the Gulf of Mexico and South Atlantic, coastal migratory pelagic resources of the Gulf of Mexico and South Atlantic. Gulf of Mexico Fishery Management Council. Tampa, Florida. http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Final%20EFH%20EIS.pdf

NMFS. 2011. Biological opinion on the continued authorization of Reef Fish fishing under the Gulf of Mexico Reef Fish Fishery Management Plan. September 30, 2011. Available at: http://sero.nmfs.noaa.gov/pr/esa/Fishery%20Biops/03584%20GOM%20Reef%20Fish%20BiOp%202011%20final.pdf

APPENDIX C. SUMMARIES OF PUBLIC COMMENTS RECEIVED

Scoping workshops were held from January 14 – 22, 2013.
Public hearings were held from August 1 – 15, 2013.

Written comments submitted in response to Reef Fish Amendment 39 can be found here: https://docs.google.com/spreadsheet/ccc?key=0Atgbk2rxQkqhdFViUTB3VERSX2ZwcXJmckl1QTBXZkE#gid=0

Scoping workshops were held in the following locations:

January 14, 2013
Baton Rouge, Louisiana
DoubleTree by Hilton
4964 Constitution Ave.
Baton Rouge, LA 70808
(225) 925-1005

January 14, 2013
Texas City, Texas
Holiday Inn Express
2440 Gulf Freeway
Texas City, TX 77591
(409) 986-6700

January 15, 2013
Corpus Christi, Texas
Hilton Garden Inn
6717 S. Padre Island Dr.
Corpus Christi, TX 78412
(361) 991-8200

January 15, 2013
Biloxi, Mississippi
Four Points by Sheraton
940 Beach Blvd.
Biloxi, MS 39530
(228) 546-3100

January 16, 2013
Orange Beach, Alabama
Hilton Garden Inn
23092 Perdido Beach Blvd.
Orange Beach, AL 36561
(251) 974-1600

January 17, 2013
Destin, Florida
Destin Community Center
101 Stahlman Ave.
Destin, FL 32541
(850) 654-5184

January 22, 2013
St. Petersburg, Florida
Hilton St. Petersburg Carillon Park
950 Lake Carillon Dr.
St. Petersburg, FL 33716
(727) 540-0050

Summaries of Scoping Workshops

Baton Rouge, Louisiana
January 14, 2013

Council and Staff
Campo Matens
Ryan Rindone

32 members of the public attended.

Joe Macaluso - www.theadvocate.com
The big issue is that the federal government is ignoring the fishermen. How do the federal fisheries managers know which survey, either the Texas Parks and Wildlife or MRIP, is correct? Red snapper can be caught in less than 25 meters of water. Also, how is funding for data collection going to be shared with the states who take on regional management? Allocation should be based on biological criteria. There is a disparity between how recreational and commercial catches figure into the overall red snapper quota. Louisiana's issue with respect to regional management is Florida: Florida has all the people, and Louisiana has all the fish.

George Huye - CCA
Regional management should be done by state, with each state constituting its own region. States should not have to share authority with other states with less resources.

Mike Montalbano - CCA
Regulations are intentionally cumbersome. The Gulf Council should pursue regional management. The Gulf Council should remove as many regulations from the fishery as possible.

Austin Johnson - Private recreational angler
Supports regional management.

Trey Williams - CCA
There are lots of red snapper out there. A 27-day season is not sufficient. Anyone with a boat can catch red snapper. The current system is broken. State-level red snapper is the way to go.

Rawlston Phillips - Private recreational angler
Regional management is the way to go. The money spent by Louisiana on the fishery goes much further than the money spent by the federal government.

Rad Trascher - CCA
Supports regional management. LDWF has a better sense of the red snapper fishery than the federal government and can better manage catch data and conduct stock assessments. Regional management is a step in the right direction.

Larry Hooper - Our Freedom Charters
Will regional management lead to catch shares? Catch share programs haven't worked well anywhere. Supports regional management. Let states handle their own fisheries. Would like to

see the charter for-hire industry recognized as its own business. We pay for everything and get punished for it. Regional management should be conducted at the state level. Red snapper should be assessed using numbers of fish instead of pounds. Scientists need to count all the fish.

Andrew Roberts - CCA
Supports regional management, with Louisiana acting as its own region and governed by LDWF.

Ben Graham - CCA
There are tons of red snapper. Supports regional management of red snapper at the state level. States can do a better job than the federal government. Allocation should be based on biological criteria.

Chris Moran - Marina operator
Supports regional management of red snapper at the state level. Louisiana has the best red snapper fishery and the smallest number of fishermen. There should be shorter seasons as you go from the western Gulf of Mexico to the eastern Gulf of Mexico. Allocation should be based on biological criteria. States could do a better job with sampling funding.

Jim McDowell - Private recreational angler
Supports regional management of red snapper at the state level, with Louisiana managed by LDWF. Allocation should not be based on landings.

David Cresson -CCA Executive Director, LA
The Gulf Council proposed regional management plan is different from the Louisiana proposal. One goal was to show that Louisiana can count fish better than the federal government. In favor of management at the lowest possible level. In favor of regional management as proposed by LDWF.

Texas City, Texas
January 14, 2013

Council and Staff
Patrick Riley
Emily Muehlstein

30 members of the public attended.

Bubba Cochrane - Charter, commercial, and recreational angler; Good News Charters and Southern Seafood LLC
What is happening with red snapper management right now isn't working and regional management should be pursued. He likes the idea of managing with 3 regions. Bubba does not want the states to manage red snapper without a regional system.

Shane Cantrell - Charter; Fishin' Addiction Charters and Charter Fishing Association
Shane is a young captain and he believes that regional management has a lot of potential as long as states can agree with one another. He would like to see regional management because it may be a way to increase accountability for the recreational sector.

Tom Hilton - Private recreational angler
The Council is working backwards and should identify fishing effort first. He thinks that an offshore boat permit would solve a lot of issues. The charter for-hire industry already has their own permit and the private recreational anglers should, too. An offshore recreational permit would allow for better determination of what the recreational sector is catching without the time lag associated with MRIP. The permit could also solve the problem of National Standard 4 that disallows discrimination between residents of different states by charging different fees for resident and nonresident fishermen. The real solution is an honest stock assessment that gives full credit to the fish on artificial structure in the Gulf. He could really get behind a regional management system if the regions actually had control, but not if this is just a way to further micromanage the fishery.

John Thomas - Private recreational angler
He echoes Tom Hilton's perspective. He sees that there is more snapper out there than ever, and even though he is allergic to fish he wants the system to be fixed.

Jonathan McKay - Private recreational angler
Jonathan suggests that permitting or buying a license that gives a certain number of fish to each angler would be a good idea. A tag system should be considered; this could be considered using regional management or it could be done Gulf-wide. Ultimately, Jonathan is worried about what the overpopulation of snapper is doing to the other fish.

Roger Dickert - Private recreational angler
Roger would not want to trade more days for a smaller bag limit. He supports a tag system because he would like to be given the opportunity to fish when he wants to so he doesn't have to risk unsafe seas. Regional management would be better because the local folks in control would better be able to make management judgments for their region.

David Conrad - Charter; Circle H Charter
David supports the idea of using a tag system. He likes the idea of regional management and would like to see the idea developed a little more.

Bill Platt - Charter boat captain and tournament angler
Bill likes the idea of a regional management system and he really wants accountability in the recreational sector to be improved. 20 years ago there were way more offshore fishermen and there are a lot less now. A tag system is a reasonable idea for Texas because better accountability should let them fish longer.

Scott Hickman - Charter Captain; Circle H Charters
One size fits all management doesn't work in the Gulf of Mexico. He would rather fish red snapper in the fall, and he supports regional management on a state-by–state level so that they

have the authority to come up with their own system under the federal quota and federal accountability measures. Regional management will allow us to get to the accountable fishery quicker than the federal fishery would allow. The status quo system does not work; 27 days is ridiculous, and Texas may as well not have a federal season with the bad weather. Texas Parks and Wildlife could do better for their fishermen and he applauds the Council for trying to give the recreational fishermen a solution.

Tyler Walker - For-hire deckhand and recreational fisherman.
Tyler has seen how the fish population has grown and he supports the idea of moving forward with a regional management program.

Billy Woolsey - Private recreational angler
Billy thinks regional management is a good idea. He wants accountability to be better and believes that a tag system is a reasonable solution to the problem we're facing. We need to do something different.

Johnny Williams - Owner, Williams Party Boats
Jonny believes there needs to be some safeguards because management has potential to become a derby where the state that opens first gets to catch their fish and the rest of the states are punished when the quota is caught. If a state wants to participate in the program, then it should have to agree that it will close its own state waters, not just the federal waters off the state if the individual region's allocation is reached. He thinks that NMFS should relinquish federal control of snapper completely and allow the states to manage it.

Buddy Guindon - Commercial fisherman; Katie's Seafood
Regional management and accountability would be good but he wants to ensure that the people out there can continue to make a living taking people fishing.

Johnny Walker - Charter owner
Johnny thinks the states can better manage the fishery than the federal government. If the Council can put in place measures that ensure one state's harvest does not cut into another, then regional management is a good idea. He also believes that a tag system is a reasonable solution to the recreational season problems.

Todd Hanslik - Private recreational angler
He supports the idea of regional management and would like the Council to give the states a shot at incremental management of this fishery. It will be very complex to develop the regional management program and Todd would like to be sure that the Council continues to involve fishermen in the development of the program by sharing information and inviting people to comment. He wants to pass on the ability for future generations to fish, and he fears that the fishery is slowly migrating to a liberal system that is similar to that of Canada where you must pay someone to take you bluefin tuna fishing. He would really like the state to have the opportunity to manage snapper on their own.

Gary Graham - Texas Sea Grant
He thinks tags should be considered because it is a potentially viable system that works in the hunting world. He would like to discuss density-dependent allocation because population is limited by habitat.

Corpus Christi, Texas
January 15, 2013

Council and Staff
Doug Boyd
Emily Muehlstein

37 members of the public attended.

Mary Ann Heimann – South Bay Marina
It's a good idea that the states take control of the fishery but she thinks that the states should be given full control.

Russell Sanguinet - Charter; Dolphin Dock Inc.
Council can't allocate based on the number of licenses because we can't use historical licenses to determine it; people have not been buying licenses and won't until there is something to catch. He wonders how we are going to differentiate between federally permitted vessels and state-permitted for-hire vessels if the state of Texas gets regional control? Would federal permits be allowed to fish in state waters? The whole purpose of this idea should be to make each state responsible for their own fishery and not be managed by another mismanaged fishery (NMFS).

Jackie Romeyn - Charter; Fisherman's Wharf
She would like to know what the distinction would be between the federal and state waters. She does not currently have a federal permit and wonders what the distinction will be under regional management. Jackie likes the idea of state-based regions or even smaller regions because she believes it will allow for better scientific information, better allocation, and better local regulations if the states are given more responsibility.

Troy Williamson - CCA
The concept of regional management has been developed because of frustration toward federal management. Red snapper are more abundant than ever and management has worked, but it's time to reap the benefits of success. The CCA supports driving management to the lowest level of government possible. The states should manage with as little federal influence as possible. NMFS is "rewarding" anglers with a 27-day season and a 2-fish bag limit after they have sacrificed to rebuild the stock. This short season will result in a wide-spread revolt to fisheries management. The transfer of responsibility will be no easy task; enforcement, monitoring, etc. will be difficult to control. The states should have the ability to manage both commercial and recreational harvest of red snapper.

Mike Nugent - Port Aransas Boatman Association and Charter operator
They have been asking to split the Gulf for 10 years. This is the first time the Council has responded and he hopes that people keep moving forward to get this plan to work. Each state should get their allocation from historical landings and it's really important that each state is independent from the others. The mistakes other regions make should not affect each region. The problems with MRIP could be solved by dividing it into other states who can take more control of their data collection programs. Regional management is desperately needed and would take away the state vs. federal permit issues.

Mike Miglini - Charter; Out to Sea Adventures
He would like allocation to be based on biological abundance of the fish. He supports regional management because local folks can make better regulations for local needs. He sees problems with Reef Fish Amendment 30b and section 407 of MSA which will kill charter boats and headboats. Credit should be given for artificial reef and restocking programs when determining abundance. He would like people to look at tags for recreational boats, and if that's good for private recreational boats he would like to see something for for-hire boats that would allow anglers to fish the days they want; they could use an AB tag system to stay in business.

Mike O'Dell - Charter; A Fishing Fantasy Guide Service
He supports regional management because the states can make better regulations than NMFS can.

Dennis Lug - Retired charter, now private recreational angler.
Would like to see some sort of regional management system worked out.

Steve Hardy - Private recreational angler
We are here because federal fisheries management is not working and it's time for something different. He supports any plan that has Texas as their own region. Boundaries would extend into the EEZ. We are not managing licenses, we are managing fish, so allocation should be based on abundance of fish. There are multiple stocks of red snapper based on habitat and reefs. He is worried that we are having a discussion about how we divide the pie but we are saying nothing about how to make the pie bigger. We need to do something about structure offshore.

Jim Smarr - RFA Texas
RFA believes in state management and has for 17 years. We should use the longest data set possible (historical landings) so that Texas can be treated fairly. It should be a biological abundance decision, period. The SEDAR-style stock assessments should be conducted regionally so that Texas can fish their own stock; monitored and determined by Texas. Management guidelines should not be established by the Council; the state should be given full control of their allocation. There needs to be an amendment to the MSA that cures the system that allows the other states to be affected by another region's overrun of their own allocation.

Brett Casey - For-hire; Port Aransas Boatman Association
Out of all the discussion, it still boils down to NMFS still monitoring the red snapper, and if one state catches the whole allocation, we're still back to square one. We need to figure out what we

need to do to limit this. Texas should be given their own allocation and each region's behavior should not affect what the other regions do. It's time to make a change for the good.

Tim Oestreich – Headboat Captain; Dolphin Dock Inc.
The federal limit seems to mainly limit the for-hire folks with federal permits. Some kind of separation should be made for someone who owns a business, because as it is, private fishermen can catch 4 fish all year-round, while federally permitted for-hire boats have a real short season. It would be very helpful if the season can stretch.

Biloxi, Mississippi
January 15, 2013

Council and Staff
Dale Diaz
Ryan Rindone

23 members of the public attended.

Johnny Marquez - CCA Executive Director, MS
Local managers can do a better job of managing fisheries for constituents. Concerned about how regions will be defined. Want fair and equitable access to the fishery. How would state management entities be funded to conduct regional management?

Tom Becker - Charter for-hire captain
Red snapper are very abundant. Concerned about what Mississippi will get with respect to allocation. Want to know who makes up the catch numbers.

J.R. Titmus - Private recreational angler, artificial reef builder
Louisiana is claiming 9 nautical miles for state waters. Has no idea how recreational catch data are calculated. Would like to see state control out to 9 nautical miles in Mississippi, and the federal government can control beyond that. It is not possible to fish all 27 days of the proposed 27-day red snapper season; it's just too expensive.

Tim Knighten - Private recreational angler
Does not understand how the stock assessments work. It is hard to catch triggerfish because there are so many red snapper. Red snapper are eating everything. Doesn't trust the federal government or federally generated data. Supports state management of red snapper.

Gary Smith - Gulf Council Red Snapper Advisory Panel
There is a major issue with counting the recreational catch. The entire process is a joke, and the federal government is screwing the recreational sector. Flew from Mississippi to Florida to count the number of boats fishing to prove it. Mississippi needs regional management. What happens when Texas removes all of the oil rigs?

Keith Cuevas - Marine Biologist, Gulf Coast Research Lab
Mississippi needs regulations extended into federal waters. Allocation should account for this. Other states have shallow water oil rigs and Mississippi does not. The Gulf Council needs to get involved in the rigs-to-reef process. Juvenile red snapper recruit to the oil rigs. Supports regional management authorities, based on good communication. If states pursue regional management individually, then their independent harvests could have a domino effect on the other states.

Orange Beach, AL
January 16, 2013

Council and Staff
Bob Shipp
Ryan Rindone

125 members of the public attended.

Pat Willingham - Private recreational angler
Has seen a four- to fivefold increase in red snapper over the last 40 years. All of the fish are in the 9-25 pound range. Divers tell him that the juvenile fish of other reef species are almost gone due to the red snapper. The Gulf Council needs to consider the impact of large red snapper on reefs.

Tom Steber - Charter for-hire captain
Need to look at regional management. The big issue will center around how the lines are drawn. The overarching issue is the Magnuson-Stevens Act. Fishermen need to rally together to get MSA redone or fixed. Alabama has the best reef zone in the world.

Kevin Sinyard - Private recreational angler
Watched the bag limit drop from five fish to two. It costs a fortune to go fishing for red snapper now.

Dale Ruckle - Private recreational angler
Can't even get a charter to go out fishing for red snapper. Bag limits are too low. Local businesses are losing tourism business as a result.

Troy Frady - Charter for-hire captain
Concerned about how to make a living. Bag limits have plummeted. Cautious about regional management of recreational red snapper. Is regional management going to extend the season or increase the creel limits? Is Alabama going to manage the fishery better than the National Marine Fisheries Service? The regulations are affecting our livelihood.

Gary Malin - Private recreational angler
Fished only a few days last season and limited out on red snapper each time. Red snapper are eating everything. Regional management should be done with a break between Florida and Alabama; this would be more fair for Alabama. Current fisheries regulations don't make sense.

John Kemper - Private recreational angler from Minnesota
Alabama anglers should fight for their rights.

Tim Wilson - Private recreational angler
Fishing is an inalienable right. There are plenty of fish in the ocean. The charter for-hire fleet is afraid of the federal government. Fishermen need to protect their rights. Government has taken all of those rights away. Shorter seasons make it less likely that people will fish. Local control of fisheries is better.

Tom Ard - Charter for-hire captain
The best idea so far for red snapper is regional management. Alabama does a great job counting fish. Each region should be held accountable for their allocation. Would fish tags be used? How might regional management apply to grouper in the future? Use historical biological data for setting the allocation and adjust it periodically. Fears noncompliance by states like Texas and Louisiana.

Ben Fairey - Charter for-hire captain
The fisheries management process takes too long. Regions will all fight for allocation. Alabama should not be grouped with Florida. Alabama only has 3 nautical miles worth of state waters, while other Gulf states have more. Wants assurance from the Alabama Gulf Council representatives that Alabama will be cared for in this process.

Bill Coursen - Private recreational angler, Pensacola, FL
Whenever the government takes anything over, they mess it up. Fishing rights are being denied. Caught 76 red snapper last year, and discarded close to 400. Hopes that some regions won't be unjustly shorted on their allocation.

Matt McLeod - Charter for-hire captain
There is a disparity between the number of fish caught and the reported landings. Both are total unknowns. Supports states all going noncompliant. NMFS's red snapper management plan will crumble with noncompliance, and NMFS will have to do what the fishermen want.

Chris Sherrill - Restaurateur
There will be economic problems if the season length drops to zero. He depends on recreational fishermen eating at his restaurant during the summer; no red snapper, no customers.

Gary Bryant - Charter for-hire captain
Red snapper season should last 180 days at a 4-fish per person bag limit. Supports regional management by individual states with accountability measures provided by the Gulf Council. Likes the idea of fish tags. The charter for-hire industry could receive their annual allotment of tags at the beginning of each year, and the private recreational anglers could get tags to catch red snapper at will. Harder to find more desirable fish.

Rashley - Private recreational angler
The federal government is over-managing. Flawed management affects everything.

Alan Taylor - Private recreational angler
Supports regional management of recreational red snapper by state.

Dwain Sanders - Private recreational angler
There are thousands of red snapper off Alabama. The charter for-hire industry is ruined. Commercial fishermen are paying lobbyists to raise the price of red snapper.

Robert Turpin - Escambia County Marine Resources, Private recreational angler
Supports regional management of recreational red snapper with allocation based on biomass. NMFS is currently trying to rebuild red snapper to a threshold that is too high. Will never be able to meet the rebuilding threshold.

Destin, Florida
January 17th, 2013

Council and Staff
Pam Dana
Ryan Rindone

104 members of the public attended.

Candy Hansard - Private recreational angler
The portion of Amendment 30B requiring CFH fishermen to adhere to the strictest regulations needs to be eliminated. States shouldn't be penalized for other states exceeding their allocation. Regional management is needed. Need to solve fisheries problems, not manage them. Need more artificial reefs. The Gulf Council needs to look into private artificial reef construction.

George Eller - Charter for-hire captain
Regional management of recreational red snapper may have merit under some conditions. There are too many unanswered questions right now. Need to table the amendment until the next assessment is completed. Until the CFH portion of Amendment 30B is gone, competition will be unfair. Texas is in violation of current regulations. Louisiana extending their state waters will take an act of Congress.

Matt McLeod - Charter for-hire captain
Been coming to these meetings for ten years. Lots of false hope. System has failed the fishermen. The regions would be fighting over a constantly shrinking pie. Supports states all going noncompliant. Fishermen need leverage against NMFS. States could grossly exceed the TAC set by NMFS, and the NMFS's red snapper management plan would crumble. Fishermen could then demand that NMFS work with them. The problem won't be solved by anything less.

BJ Burkhead - Charter for-hire captain
Opposed to regional management; table the amendment.

Stewart Miller - Charter for-hire captain
Opposed to regional management; table the amendment. Too many unanswered questions.

Chuck Guilford - Charter for-hire captain
Opposed to regional management. Opposes all management without consideration of ecosystem variations. Opposes any separation between the CFH and private recreational fishing groups.

Tom Adams - Charter for-hire captain, www.mexicobeachcharters.com
The Gulf Council should appoint new people to the Advisory Panels.

Dr. Rain - Private recreational angler, Destin resident
Has quit fishing deepwater outside of the red snapper season because red snapper are all you can catch when you go out there. Huge red snapper off of Destin. Fisheries management needs to focus on the data collection.

Brant Kelly - Charter for-hire captain, www.relentlesscharterfishing.com
Opposed to regional management. Table the amendment.

St. Petersburg, Florida
January 22, 2013

Council and Staff
Martha Bademan
John Sanchez
Ava Lasseter

24 members of the public attended.

Capt. Bob Bryant - Charter
In considering regional management, once again we are trying to manage something that we don't know what we're managing; we don't know the numbers. The stock assessment fails to get a huge percentage of the fish from oil rigs and artificial reefs. The majority of the stock assessment is based on natural structure that NMFS knows. The majority of fishermen are going to artificial structures and we are not capturing fish from those places. Stock assessments are useless without this, making catch data useless, too. There are more problems than benefits in regional management and it seems to be a backdoor to sector separation. What we need to do is to unite fishermen and provide good data to NMFS and have them provide good data to the fishermen in return.

Bo Gorham - Private recreational angler
For-hire operators do a great service, but private anglers put money into economy and so have an important voice. He works weekdays so only had 12 days possible to fish red snapper during last year's season, and was only able to go fishing four times. Investing in gas and boat wear and tear for a derby fishery is not sustainable. Upon hearing this year's estimated 27-day season, he started running his own numbers. He compared MRIP's effort data and number of fish caught a day and the numbers don't work out. If effort data stays constant, it shows they didn't overfish last year but came out right at quota. If that's true, he should have 42-day season again this year. But it's a crap shoot because we don't know the stock. He does agree that taking management to the regional level now is crazy; the data are not there now to manage as a whole. Dividing into

five ways creates new bureaucracy that taxpayers will have to pay for. The states don't cooperate now. It's a way to avoid the hard part which is to validate what is going on in the fishery. Data is the key.

Capt. Mark Hubbard - Hubbard's marina, John's Pass.
He is strongly against splitting up amongst the states and echoes Bo Gorham's comments. He doesn't want another layer of bureaucracy on this fishery, especially since the Council can't manage fishery now. Plus, taxpayers can't afford it; it's more and bigger government. The plan takes away from state powers and discriminates between for-hire, federal, and state permit holders. It discriminates between the states, and appears to move toward sector separation. It uses fatally flawed data to micromanage a fishery that is already screwed up. It seems to divide and conquer the Gulf of Mexico. He is against regional management now, but would have supported it with a 6-month season. A full benchmark assessment needs to be done on red snapper. The fishery needs more days for open access fishing. It's the opportunity to fish that drives our economy, and a 27-day season is just silly with all the fish out there. Resources are being spent on assessing smaller reef fish instead of the important species.

Before considering regional management of gag, a full benchmark stock assessment is needed. The Council is restricting the gag fishery based on a flawed stock assessment. The gag fishery is huge and more reliable data are needed. There aren't as many boats fishing now because they must spend so much money to go out. Ten years ago, there would be 15 boats at the Middle Grounds, but that doesn't happen anymore. The pressure isn't on the fishery the way NMFS and the Council say it is.

Concerning state boundaries and allocation of red snapper, if states get allocated pounds, could those allocations start to migrate over from the commercial fishery? If that was the case, he wants the commercial allocation that moves into the recreational sector to stay in the recreational sector. He doesn't want the commercial sector to buy out of the recreational sector. That would give them some protection, in case catch shares take hold in the recreational fishery.

Stephen Furman - Tampa CCA
He hasn't fished offshore much lately; fuel prices keep him in his kayak. He knows others don't do it as much anymore either, so offshore effort has gone down. He thinks people understand regional management would allow states to manage the fishery and they can do a better job. But it sounds to him like the feds would spread the 27-day season among the 5 states and each gets a 5-day season and that's not appealing. He thinks a 4-day weekend season would help spread out the days so people could fish longer. Concerning how to get better data, he supports the idea of an offshore permit for collecting data from fishermen, and says it's easy to do and is already done for migratory game bird hunting.

Dennis O'Hern - FRA
This plan appears to increase uncertainty and it is uncertainty applied to allowable catch that is hurting them. The idea for regional management, regional cooperation, is a great concept, but it's called the Gulf Council and you already have that. The problem seems like the Council is told what they have to do. He is not sure where regional management is coming from; it looks like sector separation. He doesn't want to give NMFS more power to close a fishery arbitrarily.

For greater amberjack, they closed the season in 5 days, in-season, based on MRFSS data which is not supposed to be used for in-season quota monitoring. The MRIP data is still just random telephone surveys; Florida is starting new data collection but it's not making it to the top.

It's been 10 years since having a full stock assessment on red snapper. The current one is a modified benchmark assessment, and it should be a full assessment; the Council needs to make some more noise about that. These plans take away state powers; if state waters are managed by the states, anyone can fish in state waters, permit or no permit. The feds cannot come in and chain you to that federal rule. That is for all the charter guys.

They had clamped down on red grouper even though they were thick as flies, and they won a lawsuit against the regulations. The same thing has been going on with red snapper and gag; the clamp is staying on it. Roy Crabtree is clamped by certain rules, as is the Council, but we threw off slavery and other rules and putting up with this is just plain wrong. The spring shallow-water grouper closure is not needed, and he can't believe it isn't done (the rule making), so Mark Hubbard and his employees cannot access what is known to be a healthy fishery. There is no reason the closure can't be rescinded. If Dr. Crabtree can close amberjack in five days, he can open shallow-water grouper. The analyses have already been done. There will be an online petition up by tomorrow to address the 2-month closure, because it would be a half million dollar bump to the fishing economy.

Libby Fetherston - Ocean Conservancy
She lauds the goal on increasing flexibility for recreational fishermen, but is concerned that regional management isn't the way to go. There are issues with monitoring and enforcement and it is unclear where from the federal budget enforcement funds would come from. Without additional funds for monitoring, they would need a bigger uncertainty buffer and she doesn't see that happening because it would further reduce the season. She is uncertain how much flexibility states would have; it may be limited to when they have their seasons and the bag limit. She doesn't see this as a mechanism for optimizing recreational fishing opportunities.

As with all their comments on scoping documents, she feels that the Council and NMFS should analyze a wide range of options that address this issue. She is concerned about how federally permitted charter operators would be affected by regional management, and that warrants further analysis. NMFS must ensure that this is consistent with federal law and the rebuilding goals for red snapper. She predicts the assessment will show great progress has been made in rebuilding red snapper, but that they aren't there yet.

Vance Tice - FRA, Minnows and Monsters
He is still very upset that no Council member attended the last public hearing and he is concerned that Council members did not receive their testimony. He had a tackle shop that is closed because of draconian measures; 60% of his business was offshore fishing and there is no more offshore fishing. He's against catch shares but they keep trying to slide it in there; the majority in Florida is against catch shares. Congress has addressed it but they move on with it. The way effort is calculated is a big problem. He has called a lot of businesses and they report that business is down, but the data show effort is up so there is a problem there. At the boat ramps, you don't see the big trailers anymore, you see smaller bay boats. He knows guys who

have sold their offshore boats because it isn't worth it anymore. When FWC goes out and does mortality studies that show that the data are way off, their studies are ignored. Bob Shipp's paper says there is way more red snapper than the Gulf Council wants to admit. It's hard to feel a part of management when what they see is 180 degrees from what is being shoved down their throats. For red snapper, they used to have a 192-day season, 4-fish bag limit, and they never overfished the limit. Now with a 40 day season and 2 fish limit, they've somehow miraculously overfished the limit. Factors like weather, price of gas, and the economy are not taken into account. People are struggling. You're not just affecting people who fish, you're affecting every Florida citizen because when you take that money out of the state, the state still needs money to run.

Scott Moore
We don't even know how many people are fishing in federal waters. He doesn't like fishing licenses, but he knows why you have to have them. Magnuson was enacted to get information from the states on who was fishing in federal waters and he can't understand how to do this without knowing how many people are fishing in federal waters. He suggests that Florida implement the same thing as fish and wildlife did with federal regulations on migratory birds. The permits should be free because you're collecting the data and the feds should pay the states to do this. That's the first thing that should have been enacted. Just because a guy catches grouper onshore doesn't mean he fishes in federal waters. The only way to get this right is to permit the data. Another thing is poundage; Florida never went by pounds; they went by individual catch. Poundage is way too confusing, you want to simplify as much as possible. There are a lot of fish out there in trouble. There's no fishery in the world that has ever collapsed fishing on a slot [limit]; he feels slot limits should be used more.

Frank Bacheler - Captain, Hubbard's Marina
Since he came back to the area he's noticed an overwhelming change in the laws that have been imposed. For groupers, there's a big change in what you can't keep in federal waters. He gets gags year round and is not seeing the population decline like everyone is talking about. Out in 130 feet of water, red snapper are everywhere, and doesn't understand how people are getting these numbers. The FWC guys are there and they're awesome, but they are counting the number of runts coming on their boat, rather than figuring out other stuff out with their time. We're so limited with the season and we need to figure out what we're doing here. He's listening to everyone out here saying the way they collect the data is wrong, and everyone here at this meeting is against everything that's going on. No one here supports the 27-day season, they need better data.

Public Hearings were held in the following locations:

Thursday, August 1, 2013
Call-in session

Monday, August 5, 2013
Courtyard Marriott
11471 Cinema Drive
D'Iberville, MS

Wednesday, August 7, 2013
Holiday Inn Select
2001 N. Cove Boulevard
Panama City, FL

Thursday, August 8, 2013
Renaissance Mobile Riverview Plaza Hotel
64 South Water Street
Mobile, AL

Monday, August 12, 2013
Hilton St. Petersburg Carillon Parkway
950 Lake Carillon Drive
St. Petersburg, FL

Monday, August 12, 2013
Hilton Garden Inn
6717 South Padre Island Drive
Corpus Christi, TX

Tuesday, August 13, 2013
Hampton Inn & Suites
2320 Gulf Freeway South
League City, TX

Wednesday, August 14 2013
DoubleTree
4964 Constitution Avenue
Baton Rouge, LA

Summaries of Public Hearings

Call-in Session
August 1, 2013

Council/Staff
Kevin Anson
Ava Lasseter
Emily Muehlstein
Charlene Ponce

17 members of the public attended.

Tom Hilton - Recreational
Mr. Hilton believes that regional management puts the cart before the horse. The council is pushing for a concept that uses knowingly-flawed data that overestimates recreational landings by at least 70%. It would be better for the Council to help the Gulf states implement a state-based data collection system modeled after the existing Louisiana offshore landings permit. Second, the concept of sector separation has been slipped into the regionalization concept. It is irresponsible for the Council to give that type of decision-making power over to the states rather than tackle the issue Gulf-wide.

Dennis O'Hern- Fishing Rights Alliance
Mr. O'Hern wonders if there is no accountability measure for the recreational sector what is the 28-day season. The recreational sector is managed after the fact, due to the horrible mismanagement of data by NMFS. He also mentioned that people often submit false information to the Council and he asked for follow-up regarding the law and any past prosecutions under said law. He also expressed concerned that regional management was based on data that the Council knows to be wrong. The Gulf Council should be the management tool that we want, but NMFS influence and control over the Council must be removed. He stated that the Council should be run by the states with constituent input, and the members of the Council should be appointed by the Governors; not hand-picked by NMFS.

B.J. Burkette - Charter; Florida
Mr. Burkette does not think that regional management is going to help because the NMFS data is still a problem. There is no need to be so restrictive with the amount of fish and regional management won't solve that problem.

George McKinney - Commercial, For-Hire, Private; Pensacola, Florida
Mr. McKinney wondered how enforcement would work in a place like Pensacola, Florida with Perdido Pass so close. He would like to see some sort of regional management. He wants small boats and private recreational anglers who are limited in days to be able to safely and effectively fish in the Gulf.

Bob Gill - Former Council member; Crystal River, Florida
Mr. Gill recommended that the Council require the states to come to full agreement on all points relative to regional management prior to the Council taking further consideration or action. He added that the Council ought to table the amendment until the states agree on all the issues. New issues seem to be cropping up and it's going to be very difficult for the Council to find an endpoint if the states do not agree with every action and alternative.

Action 4 - Council should give serious consideration to a slot limit for red snapper. Spawning success is greater for large fish and preserving the older fish in the truncated population may have some merit. Mr. Gill acknowledges the discard problem and still believes a slot will be useful.

Bill Teehan - Former Council member; Tallahassee, Florida
Mr. Teehan thinks the entire concept is very interesting. He supports Action 4's Alternative 7 which would allow individual regions to establish sub-allocations for for-hire and private anglers.

Corpus Christi, Texas
August 12, 2013

Council/Staff
Robin Riechers
Lance Robinson
Emily Muehlstein
Charlotte Schiaffo

20 members of the public attended (mostly Texas Parks and Wildlife and Harte Research Institute staff; about eight were members of the fishing public).

Cliff Strain - Port Aransas Boatmen Association
Mr. Strain commented that he understood the current data collection but believed that people were unsatisfied with the federal government because the regulations were not in line with what the people are seeing. He added that if a move toward regionally adjusting the data was not made, then regional management would not have the punch or be as effective as anglers wanted it to be. He noted that Texas had the structure and ability to manage red snapper, and while he did not think there needed to be a year round season which could deplete the resource, he did want to see a longer fishing season. He stated that he had not had to spend more than 30 minutes fishing to limit out. He expressed concern that eventually, the destruction of habitat would have an effect on fish populations and encouraged the Council to do what it could to control the removal of rigs. He stated that his association wants to support regional management.

Ron Moser - Port Aransas Boatmen Association
Mr. Moser favored individual states having control over their waters (Action 2, Alternative 3). He added that the data collected should be adjusted to account for the biomass of fish in the state of Texas, as Texas seemed to be penalized more than other states because of this not being taken into account. He supported Action 3, Alternative 1; do not apportion the quota based on historical landings. On Action 4, he recommended the Preferred Alternative 4, to allow individual regions to set recreational red snapper season start and end dates and season structure. On **Action 5, he believes that** for-hire vessels and federal permit restrictions should be left to Texas to manage the resource. On Action 6, he agreed a 2-year grace period (Option b) would be best so that the new program had opportunity for error without penalizing fishermen while the program adjusts.

Pat Harris - Private recreational angler
Mr. Harris would like to see as much effort from the Gulf Council to increase habitat quality as they did in forcing regulations on anglers. He added that trying to improve everything instead of concentrating on improving the fishery was the wrong path for the Council to take.

League City, Texas
August 13th, 2013

Council/Staff
Robin Riechers
Lance Robinson
Emily Muehlstein
Charlotte Schiaffo

21 members of the public attended.

Kristen McConnell - Senior Conservation Manager Environmental Defense Fund
Ms. McConnell expressed concern about the regional management proposal. She is cautiously supportive because Environmental Defense Fund agrees with the idea of increasing access and flexibility for anglers but finds it difficult to support an idea with so many outstanding issues. Regional management will present challenges to law enforcement; it may have unforeseen impacts on other species due to effort shifting. It is hard to move forward without a better understanding of what the states will do. States should provide details on what direction they will take and their proposals should include accountability measures in case of a quota overage. She fails to see the relative benefit of regional management for private and for-hire anglers in the long term because the concept simply promotes the use of the same management tools with the same pitfalls. A real solution that potentially uses regional management is needed, but the current amendment does not seem to provide that solution.

Bill Bahr - Charter Captain
Mr. Bahr is largely concerned with the health of the snapper fishery and properly assessing that population. He is a Texas native and he has confidence that Texas Parks and Wildlife will be able to manage red snapper. He is concerned about the discrepancy between Louisiana and NMFS landings data, and he would support Action 6, Option b which would create a 2-year grace period for the regions to establish their own programs without having the NMFS numbers shoved down their throats.

Scott Hickman - Charter Captain and owner of Commercial Red Snapper IFQ
Status quo is not working. The commercial IFQ program can be credited for success of some of the red snapper recovery and he would like a similar tool to be considered for the for-hire sector. Mr. Hickman can't participate in his own state waters, so he supports Action 5, Alternative 2 to remove the requirement for for-hire vessels to adhere to the strictest regulations. Mr. Hickman also supports Action 4, Alternative 7 which would allow for a separate sub-allocation for the private for-hire industry. Amendment 39 has a lot of holes in it and he is afraid that Texas will have a weekend season or something that will shut out the charter industry. He is tentative about supporting the amendment and wants the charter boat fleet to have assurance before he can move forward.

Paul Bitner - Charter Captain
There are a lot of holes in how the landings are calculated and he would like to see greater accountability in how those numbers are collected. Mr. Bitner does not think we can get a grip

on the numbers without implementing a tag program to keep better track of the fish. Mr. Bitner has limited days to catch fish and make business work and the current management does not allow for success. He supports Action 4, Alternative 7 because he would like the private and for-hire fishermen to be managed separately.

Johnny Williams - Headboat owner/operator
Mr. Williams thinks there are going to be winners and losers under a regional management program, and we are in a situation where we don't know who those winners or losers will be. Texas landings have decreased but it's not because the fishing is getting worse; he predicts that under status quo, the Texas proportion of the harvest will continue to decrease. He supports states' rights and wants the federal entities to stay out of his business. Mr. Williams has a hard time supporting the amendment without a better understanding of what the program would look like if delegation were given to Texas. He would be opposed to a situation where the red snapper fishing would be open only on Saturdays during the summer and he does not know where the State stands.

Tom Hilton
The data is showing that headboats are landing 68% of all the red snapper, so headboat operators have nothing to worry about. Mr. Hilton wants to Council to get a hard handle on exactly what we are doing before jumping off into the unknown using flawed data to determine allocation percentages in Action 3. There are no regional assessments of biomass and the feds have taken control of the commercial fishery without regional control. Off Texas the working allocation is not 51% commercial and 49% recreational. There are far more commercial harvesters off Texas, and here it may be closer to 70% commercial and 30% recreational. He says that there is nothing regional about this concept because the federal agencies will still hold critical control points. The Louisiana offshore landings permit should be a sounding bill for every Gulf state to implement their own data collection system. Louisiana didn't believe the feds and they proved them wrong. In Mr. Hilton's opinion, it is a dereliction of duty for all involved to move forward with this amendment with this flawed data.
He proposes a better solution:

1. Implement a data collection system across the Gulf for each state modeled after the Louisiana offshore permit.
2. Implement an 11 million pound annual catch limit over the next 3 years.
3. Give any increase in quota to the recreational fishermen because their season and bag limit has been slashed while commercial folks have had full access to their quota.
4. Reinstate the 149-day season.

Steve Cunningham - Charter Captain
Mr. Cunningham shares the other speakers' opinions. Caution is important and using only fishery dependent data needs to change. 30B needs to be removed so he can be successful as a charter operator. Mr. Cunningham supports Action 2, Alternative 4 which would create 5 regions, one for each state. He supports Action 3, Alternative 3 which would remove landings from 2006 and 2010 from the allocation decisions. He made it clear that biomass data needs to be included somehow even if it's not given the weight that the historical landings are given. We know there are more fish in the western Gulf and that needs to be accounted for. He supports Action 5, Alternative 2 which would create a 2-year grace period. A 3-year period may be even

better. He is slightly leaning towards having more faith in Texas than he does in NMFS. There are a lot of issues in the document so before any radical changes are made, we need to look at this idea very carefully. The fishermen on charter boats are recreational anglers and they, along with seafood consumers, are important contributors to the fishery.

Shane Cantrell - Charter owner/operator
Mr. Cantrell is disappointed that regional management does not allow for planning or provide for additional methods of data collection. He would prefer a multispecies IFQ program for the charter industry. The commercial program works well for commercial fishermen and he understands that changes would be made to accommodate his industry. He wants the real time accountability. He thinks harvest tags would work out very well for the private recreational anglers. As it is proposed, regional management is just a reshuffling of the deck with the same management tools and he would rather new novel approaches to management be considered.

David Conrad- Charter Captain
He fully supports Action 5, Alternative 2 to allow for-hire boats to participate in the state season. 30B needs to go away because recreational fishermen on their boat should be allowed to fish just like recreational boat owners. He sees issues with allocation for the states. He needs to see what's in the details before fully supporting this document.

Baton Rouge, Louisiana
August 14, 2013

Council/Staff
Camp Matens
Emily Muehlstein
Charlotte Schiaffo

24 members of the public attended.

Chris Macaluso - Theodore Roosevelt Conservation Partnership
As an organization, they are trying to work within the system to better manage the recreational fisheries. Trying to manage red snapper to a total allowable catch is destined for failure because the Marine Recreational Information Program does not reflect an accurate count of the fish that are being caught or how many people are fishing. For Action 3 he is concerned with basing the quotas on historical landings. Historical landings from Alabama and Florida will reflect more landings but that is a measure of fishing pressure not abundance of fish. He does not want to restrict pressure but if the target in MSA is to end overfishing and the Council allows states with less biological availability to out fish the areas with greater availability, we are going to fail. Managing the red snapper as one stock may be a problem. The fish don't migrate from west to east; there are fish in each region. Allowing an area with less fish to harvest more of the fish will not end overfishing. The only way we will successfully end this problem is to allow more fishing where there is more biological availability and less where there are less fish.

Ed Fike - Environmental Consultant and private recreational angler
He is supportive of what he has heard this evening. He is happy that Louisiana is taking the charge and that NMFS is working with fish. Biological availability of the fish is very important and he thinks that needs to be considered during allocation (Action 3). During the fall supplemental season, he fished every weekend and never saw anyone at one of the key landings sites. Based on his observations, he does not think that fishing is that important here in the fall.

Kenny Acostu - Private recreational angler
Mr. Acostu likes the opportunity to go fishing and he enjoys it, but opening June 1st with 2-3 foot waves is hard on him. Let the states manage using the weekend season and if it's recreational that's great because it will benefit him. There is no reason to go fishing for anything outside of red snapper season because you can't catch anything but red snapper; it makes his other fishing less enjoyable. He wants to fish without feeling like he is being wasteful and killing something by accident.

George Huye – CCA; Private Recreational Angler
He is in favor of regional management. For Action 3 he is concerned about the use of historical landings data because it does not fix the problem of inaccurate fisheries dependent data and it doesn't make much sense to perpetuate the current system forward. He sees enough alternatives for the Council to be able to make good decisions here. Regional management will give the people of Louisiana a better opportunity to have a chance to catch what they may have had in the past. We know the stocks are strong and this will give the Louisiana fishermen an opportunity to put their trust and faith in their own resource management department.

Rebecca Triche - Louisiana Wildlife Federation
Ms. Triche noted that red snapper is a hot topic for her members. The Federation submitted comment in January already. She would like to see a regional approach because the Louisiana Department of Wildlife and Fisheries has the capability to assess the stocks. She wants limits to be set based on biological availability because the western region can sustain more harvest than the east. There was lots of activity in legislation regarding the passion Louisiana anglers have. She urges the Council to continue moving forward with this idea to acknowledge the frustrations of recreational anglers.

Rad Trashe - CCA Louisiana
Mr. Trashe expressed his full support for regional management. We all know that we've had faulty science and poor management. This is an opportunity to do what everyone wants; what's best for the resource and what's better for the fishermen. The Department of Louisiana Wildlife has proven that they do better science than NMFS. This year there was someone at the ramp every single day. We should put the power in Louisiana's hands and let them run with it.

D'Iberville, MS
August 5, 2013

Council/Staff
Dale Diaz
Corky Perret
Ava Lasseter

7 members of the public attended.

Tom Becker - Mississippi Charter Captains Association
The Association discussed this the other night and decided that they need to go along with this and see what happens. There are problems with the data because they were never checked to see what they're catching on his headboat. He wants to see someone checking landings more often instead of telling him when they can get there. The Department of Natural Resources is hurting for people. There are so many places to unload your fish and that's what's happening.

Gary Smith - Recreational
Mr. Smith's first concern is the legality of regional management. There needs to be a non-biased person looking into it, in case in a couple of years it's determined they did something they shouldn't have done. He doesn't have a problem with regional management, but it needs more thought about how to divide the quota. Texas, the largest state, only got 12%, but Florida landed so much [2012 landings]; what's going to happen as the population changes? There are a lot of areas that need to be addressed: will there be annual adjustments, what process will be required, what happens when Texas demands more? The biggest issue is how you're going to count/estimate the data. Everyone agrees the data is flawed, but we're not addressing that. To fix it, got to count the number of boats. Don't worry about the number of fishermen, just the number of boats. Then each state could require a boat permit and you couldn't have red snapper aboard until you have the boat permit. Looking at Mississippi's data, it comes up to 22,000 fish they could catch. He has counted the number of boats and has never counted more than 50 boats. The most he's ever counted was 88; the boats just aren't there. You'll be back to 21 days even with regional management. Counting the boats is how you have got to correct the problem.

John Marquez Jr. - CCA Mississippi
He supports regional management and wants management taken to the state level, which allows them to control the fishery, best for their anglers. CCA wants to see the states have the ability to manage the commercial red snapper quota and be allowed to allocate among sectors. They would like red snapper removed from the reef fish FMP, as has been done for misty grouper and other species. He echoes Mr. Smith's comment that any plan needs to contain flexibility to allow for change within the states over time. Mississippi has concerns about how this would be funded, as they have a different sort of funding mechanism for data collection.

Panama City, FL
August 7, 2013

Council/Staff
Martha Bademan
Ava Lasseter
Ryan Rindone

7 members of the public attended.

Chris Niquet - Commercial
He noted the differences between the percentage of red snapper landed by state since the oil spill and the allocation under Alternative 4, which would be based on the ABCs [separate east Gulf and west Gulf stock assessments]. So recreational allocations would be 48.5% for the eastern Gulf and 51.5% for the western Gulf, which lands the least recreationally. He thinks this seems backward. It seems like Florida and Alabama would get the bulk of the ABC.

Bart Niquet - Commercial
He feels the charter and headboats are stepchildren in all of this; they get no consideration from the commercial side or the recreational, side and they are being put out of business. They need their own sector and own bag limits. For red snapper, the recreational sector should go to 60 days with a 2-fish limit and set that in stone. He thinks they should be given something they can depend on so they can make a living.

Bob Zales, II - Charter Captain
He is speaking for himself, as the PCBA has not taken a position yet. He is conditionally supportive of regional management if it is only being discussed for the recreational sector, and will have no impact on the commercial sector. He supports the preferred alternatives in Actions 1 and 2. For Action 3, he supports Alternative 2 Option d, which doesn't benefit Florida the most out of all the options, but seems like a fair allocation. For Action 4 he supports only the Preferred Alternatives 2, 3, and 4. He is a little confused by Action 5; he wants the provision removed so supports that. But even if regional management does not go forward, he wants this action to go forward and be finalized before the 2014 season. For Action 6, he prefers Preferred Alternative 3, Option b, to allow the longest grace period to adapt to the change in management. He's confused by Action 7 because he doesn't see how it's going to work. Under the Magnuson-Stevens Act, the fishery must be closed when the quota is met. What happens if Mississippi fishes a lot? They could effectively cause the closure of the rest of the Gulf. He recommends rescinding 406b of Magnuson-Stevens Act that includes that requirement. It may have been necessary in 1996; it's clearly no longer necessary. Finally, as a for-hire operator, he emphasized that his passengers are private recreational anglers, just like those fishing on their own boats.

Jim Clements - Commercial
Although CCA and RFA have criticized the IFQ program, Mr. Clements supports regional management if it will help the recreational fishers catch more fish and have more days to fish. But, this must not affect the commercial red snapper fishery.

Mike Eller – Charter and Commercial
Mr. Eller is speaking for himself and his own for-hire vessel. For Action 1 he prefers Alternative 3 [Council-implemented regional management]; for Action 2: he supports the preferred alternative for 5 regions. Action 3, he supports Alternative 2 Option d, combining the long and short time series.

Regional management is a slippery slope that could result in benefits or could turn into a total fiasco. He is asking himself, can his state can do a better job than what is going on now? If the states get together and make a big advance on data collection, it could be better. But if they don't do that first, then this is putting the cart in front of the horse. This is hard for him to support when he doesn't know the long-term ramifications. His state will make decisions dependent on the current political persuasion at the time. What if his state chooses to adopt a weekends only season? That would really hurt the for-hire fleet. At least with the Council, you have diverse opinions represented. He would like the individual states to have leeway in setting opening season dates, but maybe not to set different size limits. He supports increased flexibility but it is a slippery slope. He wants to see the regional plan for each state before he supports it and they don't have that yet because it is still new. He wants to hear from a state how it would actually manage red snapper better than the NMFS. He does not want the commercial sector to be impacted by this.

He supports the preferred alternative in Action 5 and thinks the 30B provision is unfair and unconstitutional. In Action 4, he supports Preferred Alternatives 2, 3, 4, 5, and 7. Anglers that fish on for-hire vessels should be protected and shouldn't be lumped in with private anglers who fish differently. He feels there should be the possibility for sub-allocations. In Action 6, he supports Alternative 4, Option b; establish a 2-year grace period before implementation of overage adjustments.

Don Whitecotton - Charter
We have all looked at how we are going to protect the life of the fish, but we are putting our industry at risk by setting the season in the middle of hurricane season. Even if the weather is bad, charter boats have to go out to make a living. We need a way for the for-hire boats to go out, and this is a big socio-economic issue. They have been lucky nothing has happened on the headboats yet [accidents]. He suggests a year round season with a number of days you can go out to fish. We can surely regulate ourselves [when we go out] if we can regulate these fish.

Warner Foster - Recreational
He is very interested in the quota issue and wants to know how they get the quota. He hears they just pull it out of somewhere. He has never had his fish counted and weighed checked on his boat. Commercial guys have to weigh in all their fish, but no one is ever at the ramp asking him what he caught. With the size of his boat, he's not going to go out in the rough weather and get beat up. The June 1 season start was during rough weather and they couldn't get out most of the season.

***The following comments were received in Panama City on August 6, 2013 at a hearing on Coastal Migratory Pelagics.**

BJ Burkett - Charter and commercial
Capt. Burkett thinks the whole program is going to be a logistical nightmare. Red snapper isn't being managed appropriately now, but they're going to throw 5 more leaders into it? It's going to be very complicated because the regulations change so often. On all the actions, except Action 5, he wants no action. He does not want regional management. The issue we should be fixing is the flawed data. Regional management will make regulations based on incorrect data instead of tackling the issue of getting more days. He has heard we're never going to get back to where we were just a few years ago [longer season], but that's what people want. Regional management might leave them with 25-30 day seasons, which doesn't take us anywhere close to what people want. Therefore, he doesn't see the benefit of doing it. Maybe one state can fish a few days longer, or keep one fish more than another region's bag limit, but he does not see benefits to the whole Gulf and for all anglers.

Randall Akins - Recreational, retired charter captain
Capt. Akins has a historical captain permit that he can't transfer to his children and that's not the way of doing things in America. His children should be able to receive his permit. When he was in the Coast Guard, he was told you couldn't sell permits, but now you can so he is confused. At least 50% of the time he has broken the law because he has to throw back red snapper that are not at least 16". He has to throw them back and the dolphins get them. Feeding dolphins is against the law and he knows someone who was fined for feeding dolphins. This can be solved by keeping the season open year round and you can keep your first five fish. He was told that would be culling the fish, but that's what he's doing now. He doesn't support setting seasons or size limits.

Mobile, AL
August 8, 2013

Council/Staff
Kevin Anson
Chris Blankenship
Ava Lasseter
Ryan Rindone

11 members of the public attended

Palmer Whiting - Recreational, Alabama CCA Chairman
Mr. Whiting thinks the state has done a good job of managing its inshore fisheries and can do a good job with offshore fisheries. They built this habitat and they can manage it. Alabama has a lot of habitat and a lot of snapper. CCA members are in favor of that and having it on a more local level, with local scientists, who are more than capable. Bring management down to the state level is preferred.

Captain Mike Thierry - Charter
Capt. Thierry thinks states can manage it better. The inconsistency of allocations needs to be addressed so everyone is on the same playing field, and the number of days each state is allowed to fish is not impacted because of another state's regulations. Basing allocations on landings when some states who were open while Alabama was closed is like rewarding them for not playing by the rules. Sub-allocations are needed because one size does not fit all. The weekends-only season that private vessel anglers prefer would not work for the charter fleet. There should be no more restrictions than the for-hire fleet already has compared to the private recreational anglers. He supports the states taking over management and feels they are up to the job. He would like to have states do their own stock assessment. They are here locally every day and could do a better job. Each region needs to be accountable to its own quota. For example, Destin's rodeo is in October and they'd like to have the season open then. We'd like our own rodeo season in July; so one size doesn't fit all. Texas wants to be open in the winter as it's a good time for them. Alabama has got some of the best people in the world working on this stuff right here.

Skipper Thierry - Charter
He supports state management of red snapper and the ability of a state to establish sub-allocations. He would like for the state to conduct its own stock assessment, eventually. He wants the accountability measure, but they need to be flexible because landings often fluctuate annually for all kinds of reasons beyond our control.

St. Petersburg, FL
August 12, 2013

Council/Staff
Martha Bademan
Ava Lasseter
Ryan Rindone
Doug Gregory

8 members of the public attended.

Buddy Bradham - Recreational Fishing Alliance, retired charter and commercial fisherman
The RFA has a lot of problems with this so for right now, they prefer No Action be taken on all actions. They're behind on getting data sets in place. Florida is working on it but it is unknown when this will be available. There is the potential for going over the quota. The season dates would have to come from each state. There was a meeting on Friday morning where it was said it may cost 2.5 million dollars per year, and that's funding Florida doesn't have. These are problems that need to be solved before we go into regional management. If the improved data collection is in place, they would support regional management with the following preferred alternatives:

Action 1: prefer no action until data is fixed. Action 2: support the preferred alternative of 5 regions. For the quota (Action 3), they have a big problem with the data sets that may be used.

Louisiana has just proved how bad the NMFS estimates are: 70% off from their catches. They would like any new data program to run for 3 years then base the quota allocations on that. Action 4: they support the Preferred Alternatives 2, 3, and 4. But, they strongly speak out against Preferred Alternative 7, as this is a form of sector separation. They are still against it and feel the Council is trying to push it into this amendment. For Action 5, they support the preferred alternative. They don't support 30B at all and it should be completely removed, not just for red snapper but also for all reef fish. For Action 6, they prefer Alternative 3, Option b, allowing a 2-year grace period. For Action 7, they support Preferred Alternative 3 for a state that opts out.

Libby Fetherston - Ocean Conservancy
The Ocean Conservancy supports the Council's attempt to consider alternative management for the recreational sector. They do not take positions on allocation decisions. They think data collection and validation is critical to the success of any regional management plan and will need minimum data standards. They encourage the Council to think about ways that the restoration funds could support these goals in terms of quality and quantity of sampling. They also encourage the use of ACTs because they provide a reasonable buffer based on past performance and warrant consideration.

Sharon McBreen - Pew Charitable Trusts
Pew recommends revising the amendment's purpose and need to reflect that rebuilding red snapper is the top priority. They recommend that the amendment include the following three key components needed for the program's success:
1. AMs are safeguards and should include payback provisions, to maintain rebuilding. So they support the preferred alternative in Action 6. They also encourage the states to set up a system to constrain catches to within their quota. They do not oppose the Option a for a 1-year grace period, to allow state programs time to adjust their management process. This will be a learning process between NOAA and the states.
2. The states will need to retool their data collection systems to avoid triggering AMs. States should consider the use of ACTs to build in a margin of error to avoid triggering AMs, especially while adjusting to the new management system. This includes the option to use an ACT.
3: They support Action 4's Preferred Alternative 7: establish sub-allocations. If a state chooses that this is right for them, they should be allowed to pursue it.

Stephen Furman - CCA Florida, Tampa chapter
CCA supports regional management. He found the example of regional management for king mackerel an interesting example, because it is a migratory fish, and red snapper is not migratory. We had no red snapper off this coast for a long time but they came back because of Hurricane Katrina. This is a good start but the states would do a good job figuring it out if the feds would step away from the table. The states should have that authority, and the data and law enforcement is available. NOAA is paying FWC for nice boats to patrol offshore and there is no reason to stop that.

APPENDIX D. DELEGATION PROVISION

Magnuson-Stevens Fishery Conservation and Management Act 16 U.S.C. §1856(a)(3), (b)

(3) A State may regulate a fishing vessel outside the boundaries of the State in the following circumstances:

(A) The fishing vessel is registered under the law of that State, and (i) there is no fishery management plan or other applicable Federal fishing regulations for the fishery in which the vessel is operating; or (ii) the State's laws and regulations are consistent with the fishery management plan and applicable Federal fishing regulations for the fishery in which the vessel is operating.

(B) The fishery management plan for the fishery in which the fishing vessel is operating delegates management of the fishery to a State and the State's laws and regulations are consistent with such fishery management plan. If at any time the Secretary determines that a State law or regulation applicable to a fishing vessel under this circumstance is not consistent with the fishery management plan, the Secretary shall promptly notify the State and the appropriate Council of such determination and provide an opportunity for the State to correct any inconsistencies identified in the notification. If, after notice and opportunity for corrective action, the State does not correct the inconsistencies identified by the Secretary, the authority granted to the State under this subparagraph shall not apply until the Secretary and the appropriate Council find that the State has corrected the inconsistencies. For a fishery for which there was a fishery management plan in place on August 1, 1996 that did not delegate management of the fishery to a State as of that date, the authority provided by this subparagraph applies only if the Council approves the delegation of management of the fishery to the State by a three-quarters majority vote of the voting members of the Council.

(C) [Pertains to Alaska, only.]

(b) EXCEPTION.—

(1) If the Secretary finds, after notice and an opportunity for a hearing in accordance with section 554 of title 5, United States Code, that—

(A) the fishing in a fishery, which is covered by a fishery management plan implemented under this Act, is engaged in predominately within the exclusive economic zone and beyond such zone; and

(B) any State has taken any action, or omitted to take any action, the results of which will substantially and adversely affect the carrying out of such fishery management plan; the Secretary shall promptly notify such State and the appropriate Council of such finding and of his intention to regulate the applicable fishery within the boundaries of such State (other than its internal waters), pursuant to such fishery management plan and the regulations promulgated to implement such plan.

(2) If the Secretary, pursuant to this subsection, assumes responsibility for the regulation of any fishery, the State involved may at any time thereafter apply to the Secretary for reinstatement of its authority over such fishery. If the Secretary finds that the reasons for which he assumed such regulation no longer prevail, he shall promptly terminate such regulation.

(3) If the State involved requests that a hearing be held pursuant to paragraph (1), the Secretary shall conduct such hearing prior to taking any action under paragraph (1).

APPENDIX E. FISHERY ALLOCATION POLICY

Gulf of Mexico Fishery Management Council Fishery Allocation Policy

This allocation policy was developed by the Gulf of Mexico Fishery Management Council to provide principles, guidelines, and suggested methods for allocation that would facilitate future allocation and reallocation of fisheries resources between or within fishery sectors.

Issues considered in this allocation policy include principles based on existing regulatory provisions, procedures to request and initiate (re)allocation, (re)allocation review frequency, tools and methods suggested for evaluating alternative (re)allocations.

1. Principles for Allocation

   a. Conservation and management measures shall not discriminate between residents of different states.

   b. Allocation shall:

      (1) be fair and equitable to fishermen and fishing sectors;
      (i) fairness should be considered for indirect changes in allocation
      (ii) any harvest restrictions or recovery benefits be allocated fairly and equitably among sectors

      (2) promote conservation
      (i) connected to the achievement of OY
      (ii) furtherance of a legitimate FMP objective,
      (iii) promotes a rational, more easily managed use

      (3) ensure that no particular individual, corporation, or other entity may acquire an excessive share.

   c. Shall consider efficient utilization of fishery resources but:
      (1) should not just redistribute gains and burdens without an increase in efficiency

      (2) prohibit measures that have economic allocation as its sole purpose.

   d. Shall take into account: the importance of fishery resources to fishing communities by utilizing economic and social data in order to:
      (1) provide for the sustained participation of fishing communities

      (2) minimize adverse economic impacts on fishing communities.

e. Any fishery management plan, plan amendment, or regulation submitted by the Gulf Council for the red snapper fishery shall contain conservation and management measures that:
   (1) establish separate quotas for recreational fishing (including charter fishing) and commercial fishing.

   (2) prohibit a sector (i.e., recreational or commercial) from retaining red snapper for the remainder of the season, when it reaches its quota.

   (3) ensure that the recreational and commercial quotas reflect allocation among sectors and do not reflect harvests in excess of allocations.

2. Guidelines for Allocation

   a. All allocations and reallocations must be consistent with the Gulf of Mexico Fishery Management Council's principles for allocation.

   b. An approved Council motion constitutes the only appropriate means for requesting the initiation of allocation or reallocation of a fishery resource. The motion should clearly specify the basis for, purpose and objectives of the request for (re)allocation.

   c. The Council should conduct a comprehensive review of allocations within the individual FMPs at intervals of no less than five years.

   d. Following an approved Council motion to initiate an allocation or reallocation, the Council will suggest methods to be used for determining the new allocation. Methods suggested must be consistent with the purpose and objectives included in the motion requesting the initiation of allocation or reallocation.

   e. Changes in allocation of a fishery resource may, to the extent practicable, account for projected future socio-economic and demographic trends that are expected to impact the fishery.

   f. Indirect changes in allocation, i.e., shifts in allocation resulting from management measures, should be avoided or minimized to the extent possible.

3. Suggested Methods for Determining (Re)Allocation

   a. Market-based Allocation

      (1) Auction of quota

      (2) Quota purchases between commercial and recreational sectors
         (i) determine prerequisites and conditions:
            (a) quota or tags or some other mechanism required in one or both sectors
            (b) mechanism to broker or bank the purchases and exchanges

(c) annual, multi-year, or permanent
(d) accountability for purchased or exchanged quota in the receiving sector

b. Catch-Based (and mortality) Allocation

(1) historical landings data
(i) averages based on longest period of credible records
(ii) averages based on a period of recent years
(iii) averages based on total fisheries mortality (landings plus discard mortality) by sector
(iv) allocations set in a previous FMP
(v) accountability (a sector's ability to keep within allocation)

c. Socioeconomic-based Allocation

(1) socio-economic analyses
(i) net benefits to the nation
(ii) economic analysis limited to direct participants
(iii) economic impact analysis (direct expenditures and multiplier impacts)
(iv) social impact analysis
(v) fishing communities
(vi) participation trends
(vii) "efficiency" analysis
(a) lowest possible cost for a particular level of catch;
(b) harvest OY with the minimum use of economic inputs

d. Negotiation-Based Allocation

(1) Mechanism for sectors to agree to negotiation and select representatives

(2) Mechanism to choose a facilitator

(3) Negotiated agreement brought to Council for normal FMP process of adoption and implementation.

APPENDIX F. RECREATIONAL RED SNAPPER LANDINGS BY STATE

Table F-1. Annual recreational red snapper landings by state (1986-2013), based on whole weight of fish.

Year	Alabama	Florida	Louisiana	Mississippi	Texas	Total
1986	401,123	1,929,702	631,294	3,482	525,242	3,490,843
1987	387,077	912,826	281,413	54,031	454,200	2,089,547
1988	516,328	940,254	1,038,395	21,783	622,380	3,139,140
1989	544,007	362,359	708,400	345,009	980,565	2,940,340
1990	644,860	289,177	274,815	55,440	360,243	1,624,535
1991	877,662	439,237	968,807	179,601	451,819	2,917,126
1992	1,510,823	372,642	1,129,185	764,794	840,845	4,618,289
1993	2,095,900	1,250,350	1,626,283	907,243	1,281,487	7,161,263
1994	1,950,457	846,569	1,284,747	491,146	1,502,841	6,075,760
1995	1,742,758	565,356	1,543,765	156,083	1,455,780	5,463,742
1996	1,752,107	998,533	885,325	212,843	1,490,081	5,338,889
1997	2,660,697	1,007,177	1,145,689	664,884	1,325,782	6,804,229
1998	1,446,734	1,391,640	721,783	189,014	1,104,926	4,854,097
1999	1,975,892	1,422,359	784,324	201,749	588,084	4,972,408
2000	1,405,596	1,701,732	881,480	53,551	707,746	4,750,105
2001	2,221,042	2,095,911	316,993	108,454	509,885	5,252,285
2002	2,620,872	2,528,289	404,563	238,011	743,411	6,535,146
2003	2,315,502	2,213,246	544,732	365,829	666,136	6,105,445
2004	1,937,219	3,484,522	376,281	25,571	636,651	6,460,244
2005	1,361,826	2,242,440	484,250	5,222	582,181	4,675,919
2006	826,956	2,106,536	504,844	32,808	659,988	4,131,132
2007	1,134,694	3,295,292	908,429	3,399	466,981	5,808,795
2008	695,131	2,332,926	638,159	39,193	350,466	4,055,875
2009	1,207,914	2,630,439	1,054,595	43,574	660,335	5,596,857
2010	564,655	1,482,108	133,601	10,834	459,653	2,650,851
2011	3,606,453	1,975,772	600,358	69,478	482,046	6,734,107
2012	2,701,304	2,445,940	1,446,107	314,154	616,737	7,524,242
2013	4,424,247	3,777,371	545,532	422,529	489,112	9,658,791
2014	1,158,780	1,644,842	632,095	45,118	385,696	3,866,531

Source: Southeast Fisheries Science Center annual catch limit dataset, including the Calibrated Marine Recreational Information Program (MRIP) landings, Texas Parks and Wildlife Department, and Southeast Headboat Survey landings. Headboat landings from Alabama and the Florida Panhandle are initially reported to the same headboat fishing area. Landings have been assigned to each state based on the survey's vessel landing records (May 2015).

APPENDIX G. GULF OF MEXICO RED SNAPPER FEDERAL REGULATIONS RELEVANT TO REEF FISH AMENDMENT 39

Current as published in the Federal Register as of **May 5, 2015** (Regulations in §§ 622.39 and 622.41 effective as of **June 1, 2015**)

§ 622.20 Permits and endorsements.

(b)(3) If Federal regulations for Gulf reef fish in subparts A or B of this part are more restrictive than state regulations, a person aboard a charter vessel or headboat for which a charter vessel/headboat permit for Gulf reef fish has been issued must comply with such Federal regulations regardless of where the fish are harvested.

§ 622.34 Seasonal and area closures designed to protect Gulf reef fish.

(b) *Seasonal closure of the recreational sector for red snapper*. The recreational sector for red snapper in or from the Gulf EEZ is closed from January 1 through May 31, each year. During the closure, the bag and possession limit for red snapper in or from the Gulf EEZ is zero.

§ 622.37 Size limits.

(a) *Snapper*--(1) *Red snapper*–-16 inches (40.6 cm), TL, for a fish taken by a person subject to the bag limit specified in § 622.38 (b)(3) and 13 inches (33.0 cm), TL, for a fish taken by a person not subject to the bag limit.

§ 622.38 Bag and possession limits.

(b)(3) *Red snapper*--2. However, no red snapper may be retained by the captain or crew of a vessel operating as a charter vessel or headboat. The bag limit for such captain and crew is zero.

§ 622.39 Quotas.

(a)(2)(i) *Recreational quota for red snapper.* (A) *Total recreational quota (Federal charter vessel/headboat and private angling component quotas combined).*

(*1*) For fishing year 2015--7.007 million lb (3.178 million kg), round weight.

(*2*) For fishing year 2016--6.840 million lb (3.103 million kg), round weight.

(*3*) For fishing year 2017 and subsequent fishing years--6.733 million lb (3.054 million kg), round weight.

(B) *Federal charter vessel/headboat component quota*. The Federal charter vessel/headboat component quota applies to vessels that have been issued a valid Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component quota is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--2.964 million lb (1.344 million kg), round weight.

(*2*) For fishing year 2016--2.893 million lb (1.312 million kg), round weight.

(*3*) For fishing year 2017--2.848 million lb (1.292 million kg), round weight.

(C) *Private angling component quota*. The private angling component quota applies to vessels that fish under the bag limit and have not been issued a Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component quota is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--4.043 million lb (1.834 million kg), round weight.

(*2*) For fishing year 2016--3.947 million lb (1.790 million kg), round weight.

(*3*) For fishing year 2017--3.885 million lb (1.762 million kg), round weight.

§ 622.41 Annual catch limits (ACLs), annual catch targets (ACTs), and accountability measures (AMs).

(q)(2) *Recreational sector*. (i) The AA will determine the length of the red snapper recreational fishing season based on when recreational landings are projected to reach the applicable recreational ACT specified in paragraph (q)(2)(iii) of this section, and announce the closure date in the *Federal Register*. This will serve as an in-season accountability measure. On and after the effective date of the recreational closure notification, the bag and possession limit for red snapper is zero. The recreational ACL is equal to the applicable total recreational quota specified in § 622.39(a)(2)(i).

(ii) In addition to the measures specified in paragraph (q)(2)(i) of this section, if red snapper recreational landings, as estimated by the SRD, exceed the applicable recreational ACL (quota) specified in § 622.39(a)(2)(i), and red snapper are overfished, based on the most recent Status of U.S. Fisheries Report to Congress, the AA will file a notification with the Office of the Federal Register to reduce the recreational ACL (quota) by the amount of the quota overage in the prior fishing year, and reduce the applicable recreational ACT specified in paragraph (q)(2)(iii) of this section (based on the buffer between the ACT and the quota specified in the FMP), unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary.

(iii) *Recreational ACT for red snapper*. (A) *Total recreational ACT (Federal charter vessel/headboat and private angling component ACTs combined)*.

(*1*) For fishing year 2015--5.606 million lb (2.543 million kg), round weight.

(*2*) For fishing year 2016--5.472 million lb (2.482 million kg), round weight.

(*3*) For fishing year 2017 and subsequent fishing years--5.384 million lb (2.442 million kg), round weight.

(B) *Federal charter vessel/headboat component ACT*. The Federal charter vessel/headboat component ACT applies to vessels that have been issued a valid Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component ACT is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--2.371 million lb (1.075 million kg), round weight.

(*2*) For fishing year 2016--2.315 million lb (1.050 million kg), round weight.

(*3*) For fishing year 2017--2.278 million lb (1.033 million kg), round weight.

(C) *Private angling component ACT*. The private angling component ACT applies to vessels that fish under the bag limit and have not been issued a Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component ACT is effective for

only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--3.234 million lb (1.467 million kg), round weight.

(*2*) For fishing year 2016--3.158 million lb (1.432 million kg), round weight.

(*3*) For fishing year 2017--3.108 million lb (1.410 million kg), round weight.

APPENDIX H. BYCATCH PRACTICABILITY ANALYSIS

Introduction

Bycatch is defined as fish harvested in a fishery, but not sold or retained for personal use. This definition includes both economic and regulatory discards, and excludes fish released alive under a recreational catch-and-release fishery management program. Economic discards are generally undesirable from a market perspective because of their species, size, sex, and/or other characteristics. Regulatory discards are fish required by regulation to be discarded, but also include fish that may be retained but not sold.

Agency guidance provided at 50 CFR 600.350(d)(3) identifies ten factors to consider in determining whether a management measure minimizes bycatch or bycatch mortality to the extent practicable. These are:

1. Population effects for the bycatch species;
2. Ecological effects due to changes in the bycatch of that species (effects on other species in the ecosystem);
3. Changes in the bycatch of other species of fish and the resulting population and ecosystem effects;
4. Effects on marine mammals and birds;
5. Changes in fishing, processing, disposal, and marketing costs;
6. Changes in fishing practices and behavior of fishermen;
7. Changes in research, administration, and enforcement costs and management effectiveness;
8. Changes in the economic, social, or cultural value of fishing activities and non-consumptive uses of fishery resources;
9. Changes in the distribution of benefits and costs; and
10. Social effects.

The Regional Fishery Management Councils are encouraged to adhere to the precautionary approach outlined in Article 6.5 of the Food and Agriculture Organization of the United Nations Code of Conduct for Responsible Fisheries when uncertain about these factors.

Bycatch practicability analyses of the reef fish fishery have been provided in several reef fish amendments and focused to some degree on the component of the fishery affected by the actions covered in the amendment. For red snapper, bycatch practicability analyses were completed for Amendments 22, 27, and 40 to the Fishery Management Plan (FMP) for the Reef Fish Resources of the Gulf of Mexico (GMFMC 2004a, 2007, 2014a). Other bycatch practicability analyses were conducted in the following amendments (component of the fishery affected by the actions): Amendment 23 (vermilion snapper; GMFMC 2004b), Amendment 30A (greater amberjack and gray triggerfish; GMFMC 2008a), Amendment 30B (gag, red grouper, and other shallow-water grouper; GMFMC 2008b), Amendment 31 (longline sector; GMFMC 2009), Amendment 32 (gag and red grouper; GMFMC 2011a), Amendment 35 (greater amberjack; GMFMC 2012a); Amendment 37 (gray triggerfish; GMFMC 2012b), and Amendment 38 (shallow-water grouper;

GMFMC 2012c). In addition, a bycatch practicability analysis was conducted for the Generic Annual Catch Limits/Accountability Measures Amendment (GMFMC 2011b) that covered the Reef Fish, Coastal Migratory Pelagics, Red Drum, and Coral FMPs. In general, these analyses found that reducing bycatch provides biological benefits to managed species as well as benefits to the fishery through less waste, higher yields, and less forgone yield. However, in some cases, actions are approved that can increase bycatch through regulatory discards such as increased minimum sizes and closed seasons. In these cases, there is some biological benefit to the managed species that outweighs any increases in discards.

Red Snapper Bycatch

The Gulf of Mexico (Gulf) reef fish fishery directed at red snapper has been regulated to limit harvest in order that the stock can recover from an overfished condition. Regulations for the recreational sector include catch quotas, minimum size limits, bag limits, and seasonal closures. These are used to limit the harvest to levels allowed under the rebuilding plan. For the commercial sector, regulations previously included catch quotas, minimum size limits, seasonal closures, and trip limits. Now the sector is managed under an individual fishing quota (IFQ) program that was established in 2007. The program eliminates the need for seasonal closures and trip limits. Red snapper regulations have been generally effective in limiting fishing mortality, the size of fish targeted, the number of targeted fishing trips, and/or the time fishermen spend pursuing a species. However, these management tools have the unavoidable adverse effect of creating regulatory discards, which makes reducing bycatch challenging, particularly in the recreational sector.

An important aspect to red snapper bycatch is the penaeid shrimp fishery as previously described in Amendment 27/14 (GMFMC 2007). The shrimp fishery catches primarily 0-2 year old red snapper. To reduce red snapper bycatch, the Gulf of Mexico Fishery Management Council (Council) implemented regulations requiring the use of bycatch reduction devices (GMFMC 2002) and setting bycatch reduction targets (currently a 67% reduction from the baseline years 2001-2003; GMFMC 2007). Between the use of bycatch reduction devices and reductions in shrimp effort due to economic factors (Figure 7.1), the target reductions have been met.

Although red snapper bycatch in the shrimp fishery is an important source of mortality for this stock, this bycatch practicability analysis will focus on the directed reef fish fishery managed under the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico. Bycatch from the shrimp fishery has been and will be analyzed in the Fishery Management Plan for the Shrimp Fishery of the Gulf of Mexico, U.S. Waters.

Figures 7.2 and 7.3 show the relative number of discards for the recreational and commercial sectors as estimated by SEDAR 31 (2013). For the recreational sector, open season discards estimated through the Marine Recreational Information Program (MRIP) (charter and private angler) declined around 2007 as the recreational season got shorter due lower quotas. This trend is also apparent in the headboat data for the western Gulf of Mexico (Gulf). However, with shorter seasons of the past few years, the number of discards during the longer closed seasons increased (Figure 7.2). For the commercial sector, discards in the eastern handline and longline sectors have increased since the implementation of the IFQ program relative to the western Gulf. This may reflect a shift in fishing effort that has resulted in the program. Note that for the

commercial sector, closed season discards after the IFQ program was implemented refers to vessels with little or no red snapper allocation (see SEDAR 31 2013).

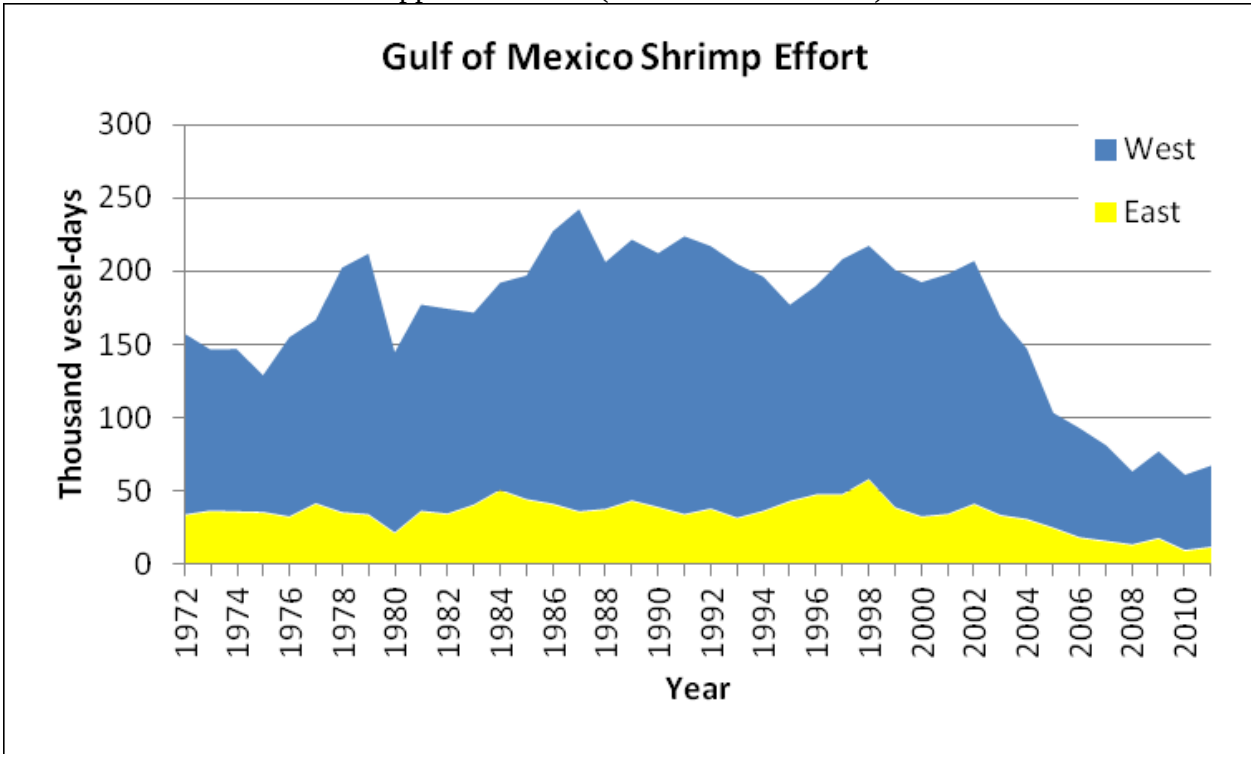

Figure 7.1. Gulf shrimp fishery effort (thousand vessel-days) provided by the National Marine Fisheries Service Galveston Lab. The reported effort does not include the average effort values used to fill empty cells. Source: Linton 2012b.

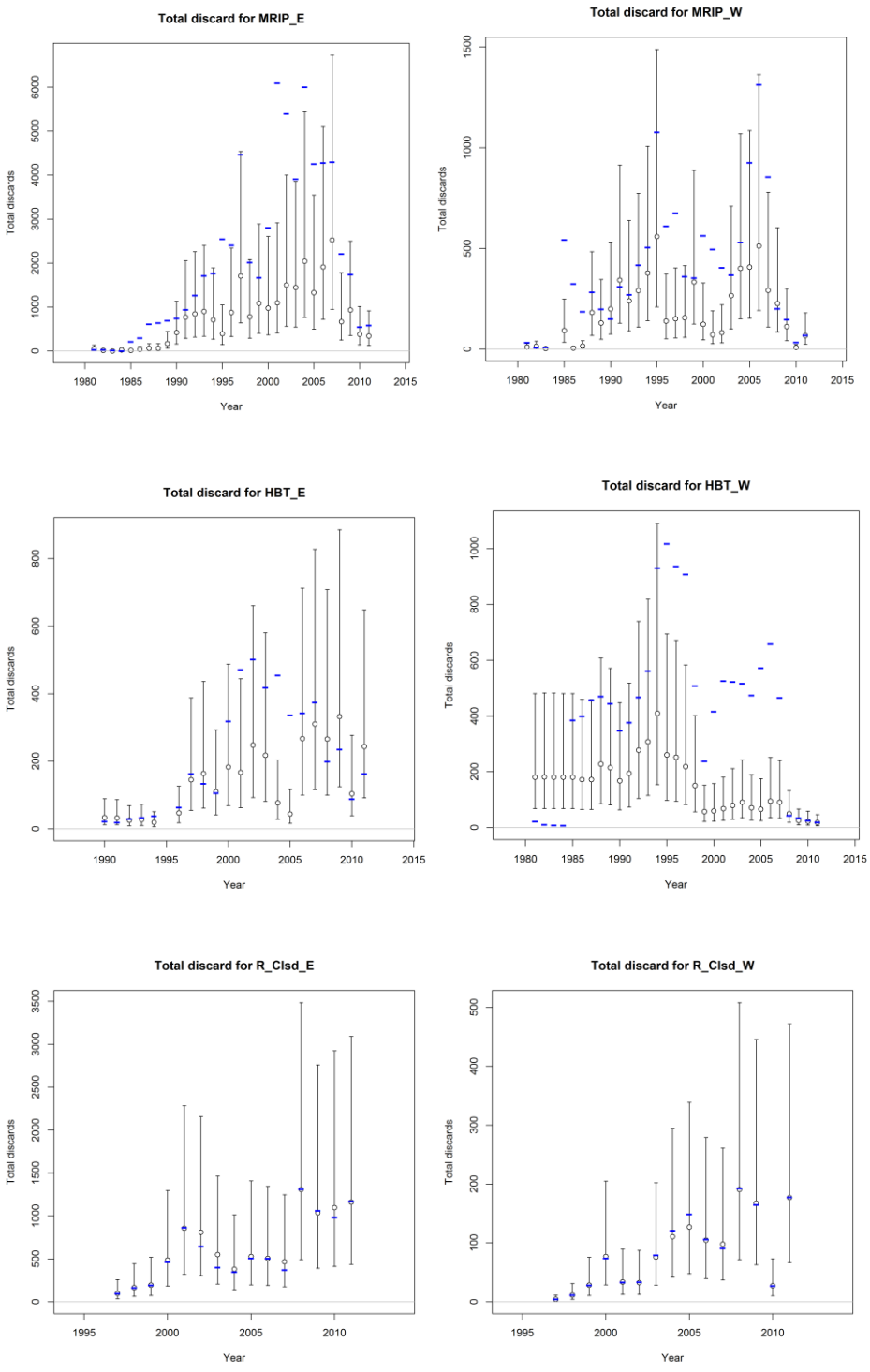

Figure 7.2. Observed (open circles) and predicted total discards (blue dashes) of red snapper from the private angler open season (top), headboat open season (middle), and recreational closed season in the eastern (left) and western (right) Gulf, 1997-2011. Source: SEDAR 31 2013.

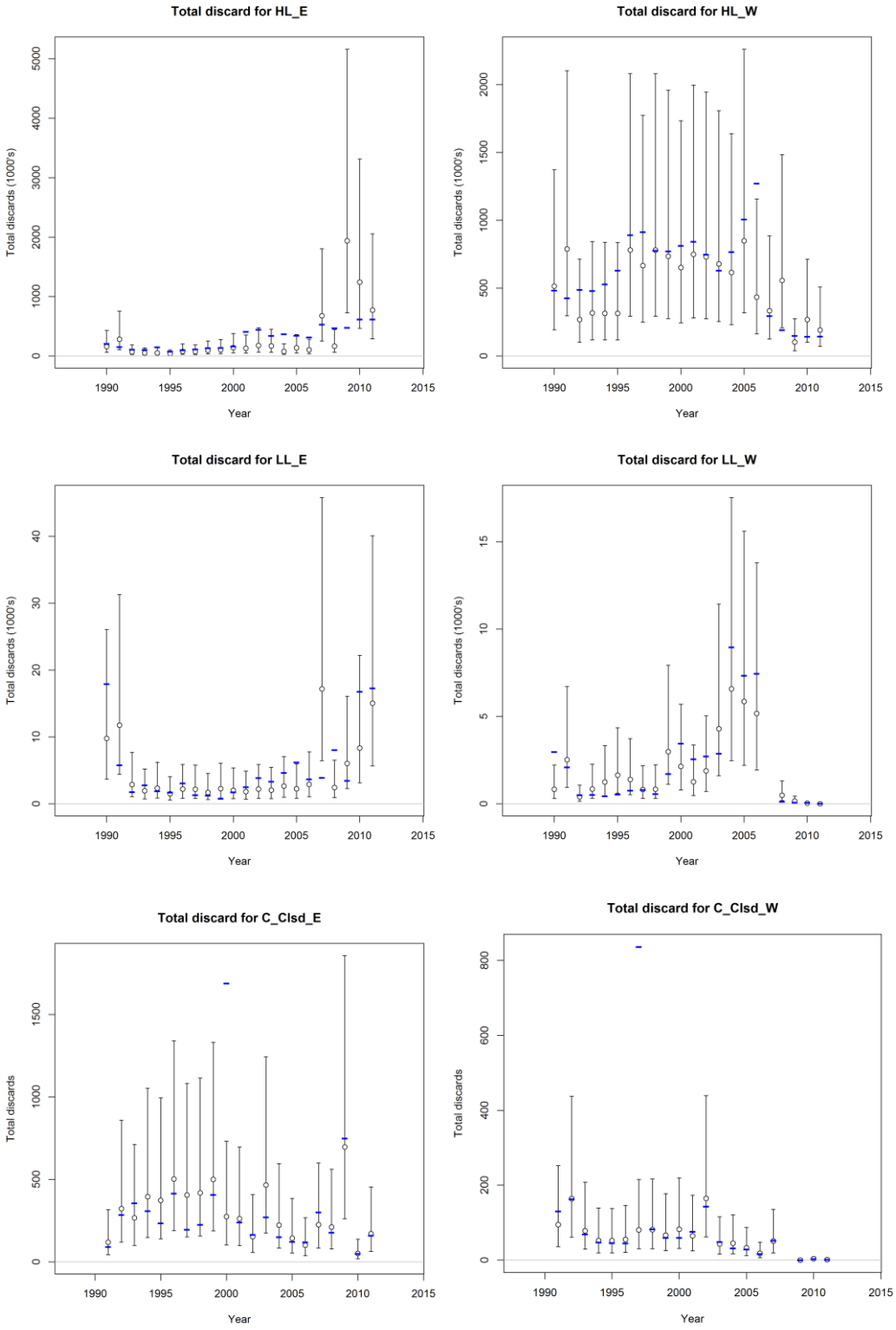

Figure 7.3. Observed (open circles) and predicted total discards (blue dashes) of red snapper from the commercial handline open season (top), longline open season (middle), and commercial closed season in the eastern (left) and western (right) Gulf, 1997-2011. Source: SEDAR 31 2013.

Campbell et al. (2012) identified several causes of red snapper discard mortality in their review of release mortality in the directed reef fish fishery. These included hooking injuries, thermal stress, and barotrauma. Campbell et al. (2012) reviewed 11 studies that listed discard (release) mortality rates ranging from 0 to 79%. They reported that mortality tended to increase with capture depth, increasing water depth, or from some compounding effect of these two factors. Burns et al. (2004) and Burns and Froeschke (2012) examined the feeding behavior of red snapper and found red snapper quickly chew and swallow their prey. As a result, there is less time to set a hook while fishing, resulting in greater probability of hooking related injuries. Burns et al. (2004) concluded hook-related trauma accounted for a greater portion of release mortality than depth, despite catching red snapper at depths ranging from 90 to 140 feet.

Although Campbell et al. (2012) did not specifically address surface interval and predation, these factors were identified in GMFMC (2007) as contributing to release mortality. Burns et al. (2002) found survival of red snapper increased the faster red snapper were returned to the water, thus they considered any reductions in surface interval/handling time an important way to reduce release mortality. Several studies have documented predation on released red snapper. Dolphins and pelicans are the two most commonly observed predators and are known to pursue released fish, as well as fish before they are landed (SEDAR 7 2005). Several studies, which assessed release mortality through surface observations, accounted for predation when estimating release mortality (Patterson et al. 2001; Burns et al. 2004; Wilson et al. 2004).

A variety of release mortality rates have been used in different stock assessment. The 1999 red snapper stock assessment (Schirripa and Legault 1999) assumed release mortality rates of 33 percent for the commercial fishery and 20 percent for the recreational fishery. These release mortality rates were derived from the literature and were determined by the Council's Reef Fish Stock Assessment Panel to be the best available estimates at the time (RFSAP 1999). During development of the 2005 red snapper stock assessment, the SEDAR 7 data workshop panel (SEDAR 7 2005) reviewed available information on depth of fishing and release mortality by depth to produce fishery specific release mortality rates by region (eastern and western Gulf), season (open and closed), and by sector (commercial and recreational). Estimates of release mortality rates ranged 15% for recreationally caught and released red snapper in the eastern Gulf to 88% for commercially caught and released red snapper in the western Gulf caught during a season closure (Table 7.1).

Table 7.1. Mean/median depth of fishing and corresponding release mortality rates for red snapper by fishery, region, and season.

Fishery	Region	Season	Depth of Capture	Release Mortality
Commercial	East	Open	180 ft (55 m)	71%
	East	Closed	180 ft (55 m)	71%
	West	Open	190 ft (58 m)	82%
	West	Closed	272 ft (83 m)	88%
Recreational	East	Open	65-131 ft (20-40 m)	15%
	East	Closed	65-131 ft (20-40 m)	15%
	West	Open	131 ft (40 m)	40%
	West	Closed	131 ft (40 m)	40%

Source: SEDAR 7 2005.

In the most recent benchmark stock assessment (SEDAR 31, 2013), a meta-analysis was used to estimate red snapper release mortality using the 11 studies reviewed by Campbell et al. (2012). A venting/no venting component was added to account for the requirement to vent reef fish put in place through Amendment 27 (GMFMC 2007) as well as a gear component. For the commercial sector, average depths at which discards occurred for each gear (handline or long line), region (eastern or western Gulf), and season (open or closed) were calculated using commercial observer program data. Consistent with how commercial discards have been treated in other parts of the assessment, discards from trips with IFQ allocation were considered open season discards, while discards from trips with no IFQ allocation were considered closed season discards. For the recreational sector, average depths at which discards occurred for each region (eastern or western Gulf) and season (open or closed) were calculated using self-reported data from the iSnapper program. Estimated release mortality rates ranged from 10 to 95% with commercial release mortality rates greater than recreational release mortality rates (Tables 7.2 and 7.3).

SEDAR 31 (2013) estimated the total number of fish killed (landed and discarded dead) by the commercial and recreational sectors from 1983 to 2011 (Table 7.4). For the recreational sector, the percentage of dead discards to total fish killed has declined since a peak in 2001. However, it was not until 2007 that the number of dead discards was consistently less than the number of landed fish. For the commercial sector, the percentage of dead discards peaked in 2000, but it was not until 2010 that the number of dead discards declined less than 40% of the total fish killed.

Since 1996, more red snapper have been landed in the eastern Gulf than the western Gulf by the recreational sector (Table 7.5). A drop in the percentage of dead discards relative to the total number of fish killed occurred in both regions in 2008. The percentage of dead discards fell from 49.4% to 36.7% between 2007 and 2008 for the eastern Gulf and from 50.0% to 20.3% between 2007 and 2008 in the western Gulf. For the commercial sector, in the eastern Gulf the number of dead discards has generally been above 50% indicating that there are more discards were killed than landed (Table 7.5). In contrast, in the western Gulf there has been a falling off in the percentage of dead discards relative to the total number of killed fish since 2006 to well below 50%.

Table 7.2. Average depths and associated discard mortality rates for commercial discards of red snapper in the Gulf.

Gear	Handline				Longline			
Region	East		West		East		West	
Season	Closed	Open	Closed	Open	Closed	Open	Closed	Open
Average Depth (m)	24	45	84	53	66	62	132	104
Disc Mort - no venting	0.74	0.75	0.87	0.78	0.82	0.81	0.95	0.91
Disc Mort - venting	0.55	0.56	0.74	0.60	0.66	0.64	0.88	0.81

Source: SEDAR 31 2013.

Table 7.3. Average depths and associated discard mortality rates for recreational discards of red snapper in the Gulf.

Gear	Recreational			
Region	East		West	
Season	Open	Closed	Open	Closed
Average Depth (m)	33	34	36	35
Disc Mort - no venting	0.21	0.21	0.22	0.22
Disc Mort - venting	0.10	0.10	0.11	0.10

Source: SEDAR 31 2013.

Table 7.4. Estimates of the total number of red snapper landed, the number of dead discards, and percent dead discards for all killed fish for the recreational and commercial sectors by year in the Gulf.

	Recreational			Commercial		
Year	Landed	Dead Discards	Percent dead discards	Landed	Dead Discard	Percent dead discards
1983	3,314,185	8,599	0.3%	4,559,794	80,758	1.7%
1984	1,232,024	2,699	0.2%	2,775,042	33,579	1.2%
1985	1,427,026	255,716	15.2%	1,234,986	351,105	22.1%
1986	1,265,955	223,079	15.0%	875,494	304,026	25.8%
1987	1,022,844	271,426	21.0%	661,469	277,787	29.6%
1988	1,241,859	302,800	19.6%	950,904	366,876	27.8%
1989	1,060,456	289,201	21.4%	742,388	296,024	28.5%
1990	625,933	270,824	30.2%	703,020	549,250	43.9%
1991	1,060,610	353,327	25.0%	691,943	635,961	47.9%
1992	1,609,040	434,448	21.3%	995,013	817,581	45.1%
1993	2,202,931	581,455	20.9%	1,011,914	781,941	43.6%
1994	1,615,241	695,102	30.1%	869,075	796,390	47.8%
1995	1,384,049	1,008,873	42.2%	698,404	767,187	52.3%
1996	1,180,361	859,431	42.1%	1,011,328	1,120,205	52.6%
1997	1,547,317	1,342,121	46.4%	1,122,447	1,674,115	59.9%
1998	1,235,683	679,689	35.5%	1,167,877	949,481	44.8%
1999	1,031,284	549,708	34.8%	1,190,580	1,063,684	47.2%
2000	1,002,899	985,281	49.6%	1,088,667	2,065,579	65.5%
2001	1,075,115	1,792,155	62.5%	1,030,580	1,214,566	54.1%
2002	1,372,415	1,586,095	53.6%	1,145,169	1,171,069	50.6%
2003	1,224,547	1,204,754	49.6%	1,080,662	996,171	48.0%
2004	1,365,946	1,677,071	55.1%	1,036,860	1,027,510	49.8%
2005	1,024,641	1,433,508	58.3%	973,109	1,170,293	54.6%
2006	1,196,183	1,533,800	56.2%	1,193,134	1,343,644	53.0%
2007	1,397,237	1,370,519	49.5%	851,537	903,242	51.5%
2008	821,804	417,509	33.7%	671,979	481,599	41.7%
2009	979,945	339,988	25.8%	656,148	772,463	54.1%
2010	447,991	170,959	27.6%	833,253	472,930	36.2%
2011	670,910	220,515	24.7%	808,582	533,198	39.7%

Source: Recreational data is from MRIP; headboat and commercial data is from the logbook and SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Table 7.5. Estimates of the total number of red snapper landed the number of dead discards, and percent dead discards for all killed fish for the recreational and commercial sectors by year and region of the Gulf.

	Recreational						Commercial					
	East			West			East			West		
Year	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards
1983	1,055,691	4,455	0.4%	2,258,494	4,144	0.2%	1,851,965	23,983	1.3%	2,707,829	56,775	2.1%
1984	192,098	332	0.2%	1,039,926	2,367	0.2%	1,077,487	5,872	0.5%	1,697,555	27,707	1.6%
1985	482,587	51,497	9.6%	944,439	204,219	17.8%	575,540	109,179	15.9%	659,446	241,926	26.8%
1986	574,495	63,839	10.0%	691,460	159,240	18.7%	237,499	31,193	11.6%	637,996	272,833	30.0%
1987	548,813	129,871	19.1%	474,031	141,555	23.0%	179,088	35,679	16.6%	482,381	242,108	33.4%
1988	524,591	137,182	20.7%	717,268	165,618	18.8%	197,784	72,004	26.7%	753,120	294,872	28.1%
1989	474,670	147,657	23.7%	585,786	141,544	19.5%	166,355	59,518	26.4%	576,033	236,506	29.1%
1990	314,036	161,286	33.9%	311,897	109,538	26.0%	208,799	169,101	44.7%	494,221	380,150	43.5%
1991	548,912	202,238	26.9%	511,698	151,089	22.8%	156,339	187,293	54.5%	535,604	448,669	45.6%
1992	886,594	272,181	23.5%	722,446	162,267	18.3%	155,044	294,315	65.5%	839,969	523,266	38.4%
1993	1,336,961	366,226	21.5%	865,970	215,229	19.9%	160,428	346,349	68.3%	851,486	435,592	33.8%
1994	819,900	379,092	31.6%	795,341	316,010	28.4%	161,842	341,927	67.9%	707,233	454,464	39.1%
1995	664,786	547,997	45.2%	719,263	460,876	39.1%	47,994	234,693	83.0%	650,411	532,493	45.0%
1996	608,817	519,005	46.0%	571,544	340,426	37.3%	66,458	384,466	85.3%	944,870	735,739	43.8%
1997	966,914	992,702	50.7%	580,403	349,419	37.6%	52,616	231,911	81.5%	1,069,832	1,442,204	57.4%
1998	814,811	485,790	37.4%	420,872	193,899	31.5%	112,125	271,377	70.8%	1,055,751	678,104	39.1%
1999	788,097	413,395	34.4%	243,187	136,313	35.9%	148,788	407,417	73.2%	1,041,792	656,267	38.6%
2000	741,378	753,560	50.4%	261,521	231,721	47.0%	169,886	1,375,667	89.0%	918,781	689,912	42.9%
2001	858,210	1,559,948	64.5%	216,905	232,208	51.7%	209,036	487,449	70.0%	821,544	727,118	47.0%
2002	1,137,262	1,374,869	54.7%	235,153	211,226	47.3%	300,706	459,631	60.5%	844,463	711,438	45.7%
2003	956,693	992,640	50.9%	267,854	212,113	44.2%	281,921	459,040	62.0%	798,741	537,130	40.2%
2004	1,128,710	1,429,531	55.9%	237,236	247,540	51.1%	251,425	392,841	61.0%	785,435	634,669	44.7%
2005	759,036	1,071,240	58.5%	265,605	362,268	57.7%	220,412	352,853	61.6%	752,697	817,440	52.1%
2006	839,855	1,076,677	56.2%	356,328	457,123	56.2%	212,766	329,879	60.8%	980,368	1,013,764	50.8%

2007	1,087,060	1,059,975	49.4%	310,177	310,544	50.0%		311,729	626,004	66.8%	539,808	277,238	33.9%
2008	642,570	371,930	36.7%	179,233	45,579	20.3%		284,937	366,341	56.2%	387,042	115,258	22.9%
2009	773,394	303,722	28.2%	206,551	36,266	14.9%		302,568	682,585	69.3%	353,579	89,878	20.3%
2010	360,404	162,119	31.0%	87,587	8,840	9.2%		413,808	384,519	48.2%	419,445	88,411	17.4%
2011	552,878	192,184	25.8%	118,032	28,331	19.4%		423,809	445,771	51.3%	384,773	87,427	18.5%

Source: Recreational data is from MRIP; headboat and commercial data is from the logbook and SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Other Bycatch

Species incidentally encountered by the directed red snapper fishery include sea turtles, sea birds, and reef fishes. The primary gears of the Gulf reef fish fishery (longline and vertical line) are classified in the proposed List of Fisheries for 2015 (79 FR 77919) as Category III gear. This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to one percent of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock, while allowing that stock to reach or maintain its optimum sustainable population.

The most recent biological opinion for the Reef Fish Fishery Management Plan was completed on September 30, 2011 (NMFS 2011a). The opinion determined the continued authorization of the Gulf reef fish fishery managed under this fishery management plan is not likely to adversely affect Endangered Species Act-listed marine mammals or coral, and would not likely jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback), or smalltooth sawfish. However, in the past, actions have been taken by the Council and NMFS to increase the survival of incidentally caught sea turtle and smalltooth sawfish by the commercial and recreational sectors of the fishery. These include the requirements for permitted vessels to carry specific gear and protocols for the safe release in incidentally caught endangered sea turtle species and smalltooth sawfish (GMFMC 2005) as well as restrictions on the longline portion of the commercial sector. Restrictions for longlines in the reef fish fishery include a season-area closure, an endorsement to use longline gear, and a restriction on the total number of hooks that can be carried on a vessel (GMFMC 2009).

Three primary orders of seabirds are represented in the Gulf, Procellariiformes (petrels, albatrosses, and shearwaters), Pelecaniformes (pelicans, gannets and boobies, cormorants, tropic birds, and frigate birds), and Charadriiformes (phalaropes, gulls, terns, noddies, and skimmers) (Clapp et al., 1982; Harrison, 1983) and several species, including: piping plover, least tern, roseate tern, bald eagle, and brown pelican (the brown pelican is endangered in Mississippi and Louisiana and delisted in Florida and Alabama) are listed by the U.S. Fish and Wildlife Service as either endangered or threatened. Human disturbance of nesting colonies and mortalities from birds being caught on fishhooks and subsequently entangled in monofilament line are primary factors affecting sea birds. Oil or chemical spills, erosion, plant succession, hurricanes, storms, heavy tick infestations, and unpredictable food availability are other threats. There is no evidence that the directed red snapper fishery is adversely affecting seabirds. However, interactions, especially with brown pelicans consuming red snapper discards and fish before they are landed, are known to occur (SEDAR 7 2005).

Other species of reef fish are also incidentally caught when targeting red snapper. In the western Gulf, vermilion snapper and some deep-water groupers are incidentally caught as bycatch when harvesting red snapper. In the eastern Gulf, various species of shallow-water grouper and vermilion snapper are the primary species caught as bycatch when targeting red snapper. Vermilion snapper are not overfished or undergoing overfishing (SEDAR 9 Update 2011a) and bycatch is not expected to jeopardize the status of this stock. Deep-water groupers are caught both in the eastern and western Gulf primarily with longline gear (> 80 percent). The deep-water grouper fishery was managed with a 1.02 million pound quota. From 2004 until the

implementation of the grouper/tilefish IFQ program in 2010 (SERO 2012a), the fishery met their quota and closed no later than July 15 each year. Deep-water grouper closures during this time period may have resulted in some additional discards of grouper by longliners targeting red snapper. Since the IFQ program was implemented, deep-water grouper species are landed year-round by holders of IFQ allocation and the quota has not been exceeded. Longliners account for approximately 5% of the annual commercial red snapper landings since 2000 (SEDAR 31 2013). It is unknown how increases in closed season discards might have affected the status of deep-water grouper stocks or the change to an IFQ managed sector. An updated assessment for yellowedge grouper found the stock was not overfished or undergoing overfishing (SEDAR 22 2011a).

Red grouper and gag are the two most abundant shallow-water grouper species in the Gulf and primarily occur on the west Florida shelf. Gag was recently assessed (SEDAR 10 Update 2009) and determined to be overfished and undergoing overfishing. A rebuilding plan that takes into account gag dead discards was implemented through Amendment 32 (GMFMC 2011c). Red grouper were found not to be in an overfished condition and not undergoing overfishing (SEDAR 12 Update 2009). Within the reef fish fishery, discards represent a large and significant portion of mortality for gag and red grouper. In the past, these species were managed under a shallow-water grouper quota which was met prior to the end of the 2004 and 2005 fishing years. For the recreational sector, shallow-water grouper including gag and red grouper are managed with size limits, bag limits, and season and area closures. The recreational gag season begins July 1 and extends until the catch target is projected to be caught. Since 2010, the commercial harvest of gag, red grouper, and other shallow-water grouper are managed under an IFQ program and the commercial sector has not exceeded its quota under the program. Prior to the IFQ program, quota closures at the end of the year have likely resulted in some additional commercial discards when the red snapper fishery is open. However, most commercial landings of red snapper occur in the western Gulf where gag and red grouper are less abundant or infrequently caught.

Practicability of current management measures in the directed red snapper fishery relative to their impact on bycatch and bycatch mortality.

The bycatch practicability analysis in Amendment 27 (GMFMC 2007) indicated directed fishery bycatch was believed to have a greater effect on red snapper stock recovery than the shrimp fishery. Although shrimp bycatch still accounts for a majority of bycatch, bycatch from the directed fishery is now known to have a greater effect on stock recovery. A quota, 16-inch total length (TL) minimum size limit, 2-fish bag limit, closed season, and gear restrictions are presently used to manage the recreational fishery. The commercial fishery is managed with an IFQ program, a quota, a 13-inch TL minimum size limit, and gear restrictions. Prior to 2007 when the red snapper IFQ program was implemented, the commercial fishery was also managed with closed seasons and trip limits. The following discusses current and historic management measures with respect to their relative impacts on bycatch with particular reference to specific management measures considered in Action 4 - Regional Management Measures.

Closed Seasons

Prior to 1997, the recreational sector was able to fish for red snapper year round. To prevent the recreational quota from being exceeded, recreational fishing for red snapper was closed on November 27, 1997, September 30, 1998, and August 29, 1999. In 2000, an April 21 through October 31 red snapper season was established. This was modified to a June 1 through October 31 season in 2008 by Amendment 27 (GMFMC 2007). Currently, the recreational directed red snapper fishery is closed in the exclusive economic zone from January 1 through May 31 each year through a 2012 framework action. However, since 2008, the sector has been closed early when the quota is projected to be caught. In addition, since 2008, the length of time red snapper fishing has been open has become increasingly shorter such that for 2011, 2012, and 2013, the season length has shrunk to 48, 46, and 42 days, respectively. With these shorter seasons, the number of released fish has decreased during the open season, but the number of releases during the closed season has increased (Figure 2; SEDAR 31 2013). Reflected in this trend is that although the estimated number of dead discards has decreased during the fishing season, the number of dead discards has increased during the longer closed periods (Figure 4). For 2014, the season length was decreased to 9 days. This was in response to a decision by the U.S. District Court for the District of Columbia (Court) in Guindon v. Pritzker, 2014 WL 1274076 (D.D.C. Mar. 26, 2014). NMFS, at the request of the Council, took emergency action to implement an in-season accountability measure for the recreational harvest of red snapper in the Gulf. The action set an annual catch target (ACT) equal to 80% of the 5.390 mp quota (ACT = 4.312 mp). The resultant 9-day season was based on the ACT and has only a 15% probability of exceeding the quota.

With the implementation of the IFQ program, there is no closed season for the commercial sector. However, commercial vessels with little or no red snapper allocation cannot land red snapper on most or all their trips. Thus, they effectively operate under closed season conditions. SERO (2013b) indicated most discards were likely due to insufficient allocation, rather than the minimum size limit, especially in the longline fleet. Most of these discards were recorded as released alive.

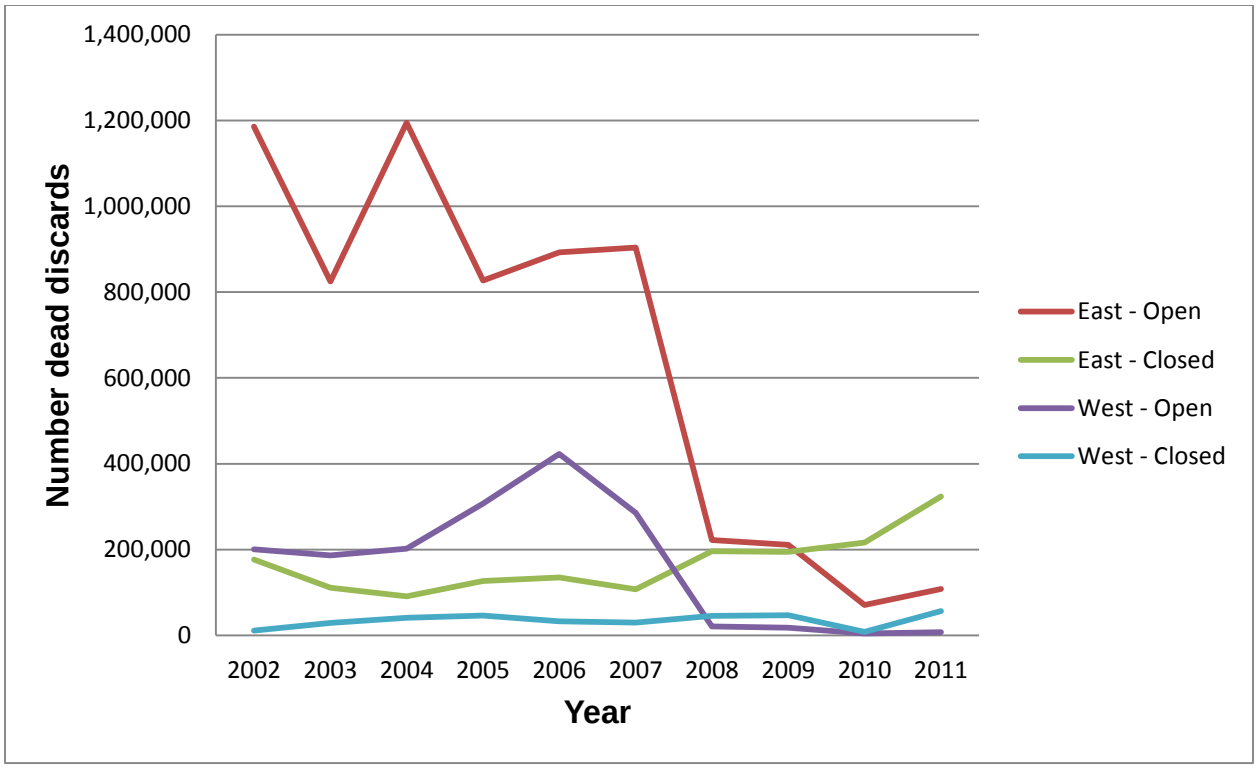

Figure 7.4. The number of Gulf red snapper dead discards from the recreational sector by year and by area. Source: Jakob Tetzlaff., pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Bag Limits

The recreational fishery is regulated by a 2-red snapper daily bag limit per person. Red snapper discards while harvesting the daily bag limit are a result of incidental capture of undersized fish prior to reaching the bag limit and targeting of other reef fish residing in similar habitat as red snapper after bag limits have been reached. SERO (2012c) reported for-hire anglers, on average, landed 1.23 red snapper per trip and private anglers landed 1.58 red snapper per trip when the season is open. Based on average catch rates, the current two red snapper bag limit is not a limiting factor for many trips. Therefore, the release of undersized fish while harvesting the bag limit is still an important factor contributing to discards in addition to the release of legal-sized red snapper after the bag limit is reached.

Size limits

The 16-inch recreational and 13-inch commercial TL minimum size limits are important factors when considering bycatch in the directed fishery. Size limits are intended to protect immature fish and reduce fishing mortality. The recreational minimum size limit is above the size at 50% maturity and the commercial size limit is near the size at 50% maturity. Size-at-maturity varies by region, with 75% of eastern Gulf female red snapper mature by 12 inches TL and 50% of western Gulf red snapper mature by 13-14 inches TL (Fitzhugh et al. 2004).

Several yield-per-recruit (YPR) analyses have previously been conducted to identify the size that balances the benefits of harvesting fish at larger sizes against losses due to natural mortality. Goodyear (1995) concluded YPR was maximized in the red snapper fishery between 18 and 21 inches TL, assuming 20 and 33% release mortality in the recreational and commercial red snapper fisheries, respectively. A subsequent yield per recruit (YPR) analysis by Schirripa and Legault (1997) indicated increasing the minimum size limit above 15 inches TL would result in no gains in yield. Analyses of minimum size limits run for Amendment 27 (GMFMC 2007) indicated red snapper projected recovery rates are slightly faster if the commercial minimum size limit is reduced or eliminated, but increasingly slowed by smaller recreational minimum size limits (Porch 2005). Decreasing the recreational and commercial minimum size limits was projected to increase stock recovery slightly over the short term, but stock recovery would be increasingly slowed if the recreational size limit were lowered over the long term (Porch 2005). However, as discussed in Amendment 27, changes in spawning potential and the rate of stock recovery were found to be negligible for recreational size limits ranging from 13 to 15 inches TL. An YPR analysis conducted by SERO (2006), using current fishery selectivities and release mortality rates from SEDAR 7 (2005) supported Porch's (2005) findings. SERO (2006) examined four commercial minimum size limits (12, 13, 14, and 15 inches TL) and five recreational minimum size limits (6, 13, 14, 15, and 16 inches TL). Based on the range of size limits analyzed, YPR was maximized at 16 inches TL in both the eastern and western Gulf recreational fisheries, 12-inches TL in the western Gulf commercial fishery, and 15-inches TL in the eastern Gulf commercial fishery. However, there was virtually no difference in maximum YPR (< 0.3 percent) for any of the eastern Gulf commercial size limits analyzed. In a study by Wilson et al. (2004) aboard commercial vessels using bandit rigs, 61% of red snapper released were greater than 13 inches and 86% were greater than 12 inches.

For this amendment, an YPR analysis was applied to the recreational sector (SERO 2013). This analysis indicates the Gulf-wide YPR is maximized at a recreational size limit of 15 inches TL. However, there was not much of a change in YPR between lengths of 13 and 18 inches TL. Thus, if the minimum size limit were changed from 16 to 15 inches TL, any gain in YPR would be minimal. SERO (2013) also showed than any increase in the minimum size limit would reduce the number of fish landed. This would probably result in more regulatory discards and an increase in the number of dead discards.

Given the above discussion, a larger recreational minimum size limit is considered to be more effective than a similar sized commercial minimum size limit because of lower release mortality rates in the recreational fishery (Tables 7.2 and 7.3). High release mortality rates in the commercial fishery provide little, if any, protection to the stock because the released fish mostly die rather than contribute to filling the quota. In contrast, the current 16-inch TL minimum recreational size limit was found to afford some protection to the stock, because a greater percentage of discarded fish will survive to spawn and later contribute to the quota as larger animals.

Area closures

Although the Council has not developed area closures specifically for red snapper, the Council has created areas to protect other species. For example, two restricted fishing areas were

developed to specifically protect spawning aggregations of gag in 2000 (GMFMC 1999). The Madison-Swanson and Steamboat Lumps marine restricted fishing areas are located in the northeastern Gulf at a depth of 40 to 60 fathoms. Both areas prohibit bottom fishing. Bottom fishing is also prohibited in the Tortugas North and South marine reserves in the southern Gulf near the Dry Tortugas. Marine reserves and time/area closures benefit fish residing within reserve boundaries by prohibiting their capture during part or all of the year. Within marine reserves, fish that are undersized potentially have an opportunity to grow to legal size and are no longer caught as bycatch. If these fish emigrate from the marine reserve (i.e., spillover effect), then they may be caught as legal fish outside the reserve, thereby reducing bycatch. However, anglers and commercial fishermen may redistribute their effort to areas surrounding the area closure. If fishing pressure in these areas is increased, then any benefits of reduced bycatch of fish in the marine reserve will likely be offset by increases in bycatch of fish residing outside the marine reserve. Within restricted fishing areas or time/area closures, fishing is allowed under restrictions that are intended to protect certain components of the populations within the area (e.g., prohibitions on bottom fishing gear), or to protect populations during a critical phase of their life history, such as during spawning.

The Council did develop a season area closure to reduce bycatch of sea turtles for the longline component of the commercial sector. The use of longlines had been prohibited from waters less than 20 fathoms east of Cape San Blas, Florida, and 50 fathoms west of Cape San Blas; however, due to higher estimates of sea turtles caught in longline gear, measures were put in place through Amendment 31 (GMFMC 2009) to reduce this bycatch. One of these measures was the prohibition of the use of bottom longline gear in the Gulf reef fish fishery, shoreward of a line approximating the 35-fathom contour east of Cape San Blas, Florida from June through August. Most sea turtle takes by longline occur during the summer months.

Allowable gear

Vertical hook-and-line gear (bandit rigs, manual handlines) is the primary gear used in the commercial fishery fishing for red snapper (> 96% of annual landings). Longlines, spears, and fish traps account for a small portion of the commercial harvest (< 5%). Longlines account for only a small fraction of red snapper dead discards as most of the landings come from handline-caught fish (Table 6). In addition, longlines are fished in deeper water, particularly in the west, and select for larger, legal-sized red snapper. Longline vessels east of Cape San Blas, Florida are also restricted to carrying 1,000 hooks onboard (only 750 rigged for fishing at any given time) as part of a suite of measures put in place through Amendment 31 (GMFMC 2009) to reduce sea turtle bycatch.

Rod-and-reel is the primary gear used in the recreational fishery. Recreational anglers also use spears to capture red snapper. Spearfishing does not affect discard mortality since all fish caught are killed. Only undersized red snapper mistakenly killed while spearfishing would contribute to discard mortality. During the red snapper recreational fishing season, discards are primarily due to the recreational size limit; however, allowable gears can affect discard mortality rates.

Fishermen in both the commercial and recreational sectors are required to use non-stainless steel circle hooks, if using natural baits, to reduce discard mortality. The size of circle hooks used in

the fishery varies by manufacturer, gear type, and species targeted (i.e., if targeting vermilion snapper, smaller circle hooks may be used). Although circle hooks may not work as well to reduce red snapper discard mortality, they are effective in reducing mortality in other species such as red grouper (Burns and Froeschke 2012).

In addition to the circle hook requirement, Amendment 27 (GMFMC 2007) also put in place requirements for both commercial and recreational fishermen in the reef fish fishery to carry onboard dehooking devices. These gears are all intended to reduce bycatch and discard mortality. A dehooking device is a tool intended to remove a hook embedded in a fish. It reduces the handling time releasing a fish from a hook and allows a fish to be released with minimum damage.

IFQ program

The commercial sector was previously regulated by 2,000-lb and 200-lb trip limits. With the establishment of the red snapper IFQ program, red snapper discards after a trip limit was reached are no longer a factor. However, reef fish observer data since the IFQ program was implemented indicate a large proportion of legal-sized red snapper continue to be discarded by both the handline and longline fleets (GMFMC 2013). Discard rates do vary by gear. In 2011, 3.5 red snapper were landed for every fish released in the vertical line fleet compared to a 0.5 red snapper landed for each fish released in the longline fleet (SERO 2012b). Discard rates greatly varied by region. In 2011, 87% of observed red snapper caught in the Florida Panhandle were landed, compared to 79% off Louisiana and Texas, and 47% off the Florida Peninsula. There was also a noticeable difference in the size of red snapper caught, with red snapper along the Florida Peninsula (mostly19-24-inches TL) generally larger than fish caught in other areas of the Gulf (mostly 15-21-inches TL). Most discards were estimated to be released alive, regardless of gear type used. Discards were likely due to insufficient allocation, rather than the minimum size limit, especially in the longline fleet. In a study by Wilson et al. (2004) aboard commercial vessels using bandit rigs, 61% of red snapper released were greater than 13-inches TL, the minimum size limit.

Table 6. Commercial red snapper landings and dead discards in the Gulf by year and area.

	Eastern Gulf				Western Gulf			
	Landings		Dead discards		Landings		Dead discards	
Year	Handline	Longline	Handline	Longline	Handline	Longline	Handline	Longline
1983	1,646,550	205,415	1,587	1,237	2,698,740	9,089	56,690	85
1984	949,341	128,146	309	388	1,625,800	71,755	27,160	547
1985	550,063	25,477	79,906	2,239	608,624	50,822	233,753	8,173
1986	222,738	14,761	21,314	646	564,277	73,719	261,093	11,740
1987	168,788	10,300	20,091	743	412,668	69,713	229,400	12,708
1988	186,924	10,860	51,433	738	686,680	66,440	285,429	9,443
1989	156,071	10,284	32,961	1,714	531,066	44,967	230,318	6,188
1990	198,778	10,021	94,242	4,552	482,224	11,997	377,444	2,706
1991	152,971	3,368	79,800	1,647	527,667	7,937	332,927	1,905
1992	153,940	1,104	54,930	484	837,699	2,270	380,571	460
1993	157,367	3,061	57,447	843	849,065	2,421	375,085	471
1994	160,369	1,473	87,448	568	705,354	1,879	412,546	407
1995	46,528	1,466	54,453	658	648,399	2,012	491,941	501
1996	65,129	1,329	62,736	925	941,768	3,102	695,812	699
1997	51,767	849	79,005	515	1,066,360	3,472	713,290	729
1998	111,068	1,057	99,004	494	1,052,750	3,001	605,570	522
1999	147,499	1,289	102,825	340	1,032,070	9,722	602,380	1,564
2000	168,301	1,585	107,368	556	899,899	18,882	634,841	3,146
2001	207,257	1,779	278,236	894	809,218	12,326	658,252	2,334
2002	297,471	3,235	319,910	1,555	830,146	14,317	584,024	2,481
2003	279,295	2,626	235,502	1,190	782,006	16,735	492,094	2,618
2004	247,833	3,592	251,909	1,633	741,737	43,698	598,933	8,157
2005	216,596	3,816	230,654	2,081	725,819	26,878	785,721	6,686
2006	209,704	3,062	221,631	1,394	955,637	24,731	992,193	6,781
2007	308,237	3,492	949,770	14,520	521,931	17,877	231,164	443
2008	277,716	7,221	660,738	24,096	381,349	5,693	115,150	108
2009	299,480	3,088	748,261	10,548	347,913	5,666	89,641	68
2010	398,806	15,002	1,111,727	53,620	415,081	4,364	85,851	56
2011	408,346	15,463	1,274,735	60,252	382,630	2,143	86,460	18

Source: SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida)

Alternatives being considered and bycatch minimization

The actions in this amendment can indirectly affect bycatch in the Gulf reef fish fishery. These actions are administrative and would develop regional management for red snapper recreational fishing. Action 1would give states or regions the ability to establish what types of measures could be used in regional management to constrain the recreational harvest to a region's allocation. Action 4 would evaluate different federal minimum size limits that would act as a default rather than the current 16-inch minimum size limit. Depending on how these measures are applied, as discussed above, they could either reduce or increase bycatch in the reef fish fishery. The impacts of changing these measures from status quo will need to be evaluated if changed.

Practicability Analysis

Criterion 1: Population effects for the bycatch species

This action establishes a red snapper regional management system for the recreational sector and so does not directly affect bycatch minimization. However, management measures that result from regional management are expected to affect bycatch. These include regional changes to fishing seasons, bag limits, size limits, and area closures. Longer fishing seasons, higher bag limits, smaller minimum size limits, and larger area closures can all minimize bycatch. However, constraining the harvest to a certain regional quota (allocation) could result in measures that work against each other in terms of reducing bycatch (e.g., a higher bag limit would require a shorter fishing season). Therefore, it is difficult to predict how regional management would affect bycatch.

As described above, the Council and NMFS have developed a variety of management measures to reduce red snapper bycatch and these measures are thought to benefit the status of the stock. These include bycatch reduction devices and effort targets in the shrimp fishery, size limit reductions and the IFQ program for the commercial sector, and gear requirements, such as dehooking devices and the use of circle hooks by the reef fish fishery. In addition, any increases in bycatch resulting from proposed management actions are accounted for when reducing directed fishing mortality. Any reductions in bycatch not achieved must be accounted for when setting the annual catch limits; the less bycatch is reduced, the more the annual catch limits must be reduced.

Criterion 2: Ecological effects due to changes in the bycatch of red snapper (effects on other species in the ecosystem)

The relationships among species in marine ecosystems are complex and poorly understood, making the nature and magnitude of ecological effects difficult to predict with any accuracy. The most recent red snapper stock assessment (SEDAR 31 2013) indicated the stock is rebuilding. Consequently, it is possible that forage species and competitor species could decrease in abundance in response to an increase in red snapper abundance. Changes in the bycatch of red snapper are not expected to directly affect other species in the ecosystem. Although birds,

dolphins, and other predators may feed on red snapper discards, there is no evidence that any of these species rely on red snapper discards for food.

Criterion 3: Changes in the bycatch of other species of fish and invertebrates and the resulting population and ecosystem effects

Population and ecosystem effects resulting from changes in the bycatch of other species of fish and invertebrates are difficult to predict. As discussed in Amendment 27 (GMFMC 2007), groupers, snappers, greater amberjack, gray triggerfish and other reef fishes are commonly caught in association with red snapper. Many of these species are in rebuilding plans (gag, gray triggerfish, and greater amberjack) with the stocks improving. Regulatory discards significantly contribute to fishing mortality for all of these reef fish species, with the exceptions of gray triggerfish and vermilion snapper.

No measures are proposed in this amendment to directly reduce the bycatch of other reef fish species. Bycatch minimization measures implemented through Amendment 18A, Amendment 27, and Amendment 31 are expected to benefit reef fish stocks, sea turtles, and smalltooth sawfish. As mentioned, this action establishes a red snapper regional management system for the recreational sector and so would indirectly affect bycatch depending on which management measures are used in specific regions. For species with quotas (greater amberjack, gray triggerfish, red grouper, and gag, this could lead to a shift in fishing effort during red snapper season closures and negatively impact reef fish stocks not currently constrained by annual quotas or IFQ programs. The magnitude of this impact would depend on the size of the particular quota, the length of the closure, and the amount of effort shifting that occurs. Annual catch limits and accountability measures are now in effect for species not considered undergoing overfishing or overfished, thus potential for effort shifting and changes in bycatch may be lessened for these species.

Criterion 4: Effects on marine mammals and birds

The effects of current management measures on marine mammals and birds are described above. Bycatch minimization measures evaluated in this amendment are not expected to significantly affect marine mammals and birds. There is no information to indicate marine mammals and birds rely on red snapper for food, and measures in this amendment are not anticipated to alter the existing prosecution of the fishery, and thus interactions with marine mammals or birds.

Criterion 5: Changes in fishing, processing, disposal, and marketing costs

The proposed management measures in this amendment would not be expected to result in any changes in fishing, processing, disposal, or marketing costs of commercially harvested red snapper because the measures only apply to the harvest of red snapper by the recreational sector. Red snapper that are harvested by the recreational sector in the Gulf may not be sold.

Criterion 6: Changes in fishing practices and behavior of fishermen

It is not possible to determine whether bycatch, including the amount of regulatory discards, will be affected following implementation of this action. The proposed measures of this amendment will enable each Gulf state or region to establish management measures for its assigned portion of the recreational red snapper quota. However, this action does not establish what those management measures will be, which remains unknown. Thus, it also remains unknown how the management measures that will be adopted by the regions will differ from the current regulations for red snapper and thus, how newly established regional regulations will differ from current fishing practices and affect fishermen behavior. It is possible that bycatch could be reduced if a region adopts a recreational red snapper season that is contemporaneous with periods of highest fishing activity. However, it is also likely that fishing activity will continue after the fishing season, and regulatory discards will occur. The amount of red snapper quota to be harvested by each state should theoretically approximate the catch that has been landed in that region, historically. Thus, it is possible that the amount of regulatory discards remains more or less the same.

Criterion 7: Changes in research, administration, and enforcement costs and management effectiveness

Proposed management measures are not expected to significantly impact administrative costs at the federal level, but could increase costs at the regional level. Size limits, bag limits, quotas, and closed seasons are currently used to regulate the recreational sector harvesting red snapper. All of these measures will require additional research to determine the magnitude and extent of impacts to bycatch and bycatch mortality. None of the measures are expected to affect research, administration, or enforcement of the commercial sector.

Criterion 8: Changes in the economic, social, or cultural value of fishing activities and non-consumptive uses of fishery resources

The establishment of a regional management program is not expected to affect the economic, social, or cultural value of red snapper fishing. Red snapper is a highly desirable target species and the proposed measures are intended to support the adoption of fishing regulations that better satisfy the preferences of local constituents. This would be expected to improve fishing opportunities, thereby increasing the economic and social benefits for fishermen and associated coastal businesses and communities. No effects would be expected on the non-consumptive uses of the fishery resources.

Criterion 9: Changes in the distribution of benefits and costs

The net effects of the proposed management measures in this amendment on bycatch are unknown because the resultant management measures that will be enacted by the respective regions are unknown. The proposed management measures would not be expected to affect the amount of red snapper harvest normally harvested by anglers in each region as the allocation of the overall recreational quota should reflect regional harvests. However, the ability of each region to enact management measures that better match the preferences of local constituents would be expected to increase the benefits, and possibly decrease the costs, associated with the

recreational harvest of red snapper. Because the commercial sector is not affected by this action, there should be no change in the distribution of benefits and costs to this sector.

Criterion 10: Social effects

Bycatch is considered wasteful by fishermen and it reduces overall yield obtained from the fishery. Minimizing bycatch to the extent practicable will increase efficiency, reduce waste, and benefit stock recovery, thereby resulting in net social benefits for the recreational sector. It is assumed that if regions establish a red snapper fishing season to coincide with regionally preferred fishing times, the social effects will be positive.

Conclusion

Analysis of the ten bycatch practicability factors indicates there would be positive biological impacts associated with further reducing bycatch and bycatch mortality in the reef fish fishery. The main benefits of reducing red snapper bycatch are less waste and increased yield in the directed fishery. Reducing discards and discard mortality rates would result in less forgone yield.

When determining reductions associated with various management measures, release mortality is factored into the analyses to adjust the estimated reductions for losses due to dead discards. The increases in discards associated with each of these management measures varies and is contingent on assumptions about how fishermen's behavior and fishing practices will change. In this action, establishing a regional recreational red snapper management system would indirectly affect discards and bycatch. Discards and bycatch would be affected depending on the application of regional management measures allowed under Action 1.

The Council needed to consider the practicability of implementing the bycatch minimization measures discussed above with respect to the overall objectives of the Reef Fish Fishery Management Plan and Magnuson-Stevens Fishery Conservation and Management Act. Therefore, given actions in this amendment combined with previous actions, management measures, to the extent practicable, minimize bycatch and to the extent bycatch cannot be avoided, minimize the mortality of that bycatch.

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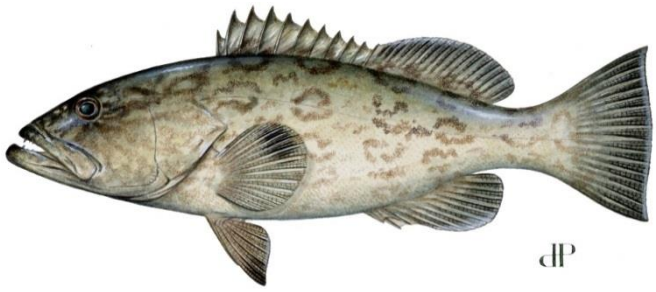
Modifications to Gag Minimum Size Limits, Recreational Season and Black Grouper Minimum Size Limits



GAG *Mycteroperca microlepis*

Revised Options Paper for a Framework Action to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico

August 2015

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ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
AM	accountability measure
AP	advisory panel
CPUE	catch-per-unit-effort
EA	environmental assessment
EEZ	exclusive economic zone
FEIS	final environmental impact statement
FMP	fishery management plan
FWCC	Florida Fish and Wildlife Conservation Commission
GMFMC	Gulf of Mexico Fishery Management Council
IFQ	individual fishing quota
IRFA	initial regulatory flexibility analysis
NMFS	National Marine Fisheries Service
OY	optimum yield
RIR	regulatory impact review
SEDAR	Southeast Data, Assessment, and Review process
SSC	Scientific and Statistical Committee
TAC	total allowable catch
TL	total length

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CHAPTER 1. INTRODUCTION

1.1 Background

The 2006 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) established new requirements to end and prevent overfishing through the use of annual catch limits (ACLs) and accountability measures (AMs). In 2009 a gag update assessment under the Southeast Data, Assessment and Review (SEDAR) program (SEDAR 10 Update 2009) indicated the gag stock size had declined since 2005. A large part of the decline was attributed to an episodic mortality event in 2005 (most likely associated with red tide) that resulted 18% of the gag stock being killed in addition to the normal natural and fishing mortalities. The update assessment indicated the Gulf gag stock was both overfished and undergoing overfishing, and the Gulf of Mexico Fishery Management Council (Council) was informed of this status determination in August 2009. In response, an interim rule was implemented on January 1, 2009 to reduce overfishing of gag, followed by permanent rules under Amendment 30B (GMFMC 2008). Amendment 32 (GMFMC 2011a) subsequently established a formal rebuilding plan for gag not to exceed 10 years.

A benchmark assessment for gag completed in 2014 (SEDAR 33 2014) indicated that the gag stock was no longer overfished or undergoing overfishing, and had rebuilt to above its maximum sustainable yield level. However, in 2014 a major red tide event occurred off of the Florida west coast in the region of greatest gag abundance. Due to uncertainty about the impact of this red tide event on the gag stock, the Scientific and Statistical Committee (SSC) recommended a conservative acceptable biological catch (ABC) that assumed the 2014 red tide event would have the same impact on the gag stock as the 2005 event. The Council requested that the SSC reevaluate its ABC recommendation, and in January 2015 the SSC received an analysis of the red tide event from the Florida Fish and Wildlife Research Institute which indicated that the impact of the 2014 red tide event was only 4% to 7% of the 2005 event. With this new information, the SSC revised its recommended ABCs based on a projection scenario that assumed no significant impact from the 2014 red tide event.

Gulf of Mexico Fishery Management Council

- Responsible for conservation and management of fish stocks.
- Consists of 11 voting members who are appointed by the Secretary of Commerce, 1 voting member representing each of the five Gulf States, and the Regional Administrator for the National Marine Fisheries Service Southeast Region.
- Responsible for developing fishery management plans and recommending regulations to the National Marine Fisheries Service for implementation.

National Marine Fisheries Service

- Responsible for preventing overfishing while achieving optimum yield.
- Approves, disapproves, or partially approves Council recommendations.
- Implements regulations.

1.2 Purpose and Need

The purpose of this framework action is to address inconsistencies in minimum size limits for gag and black grouper in South Atlantic and Gulf of Mexico waters; and modify the gag recreational size limit and fishing season to allow the annual catch level (ACL) in the Gulf of Mexico to be harvested based on the SEDAR 33 benchmark stock assessment. The need for this framework action is to allow the recreational sector to harvest gag and black grouper at a level consistent with achieving optimum yield while preventing overfishing, to address social and economic impacts of keeping the recreational gag fishing season open to achieve optimum yield, and to provide anglers consistent size regulations for gag and Black grouper.

1.3 History of Management

Federal management of gag began in November 1984 with the implementation of the Reef Fish Fishery Management Plan and its associated environmental impact statement (EIS). The initial regulations, designed to rebuild declining reef fish stocks, included prohibitions on the use of fish traps, roller trawls, and powerhead-equipped spear guns within an inshore stressed area and directed the National Marine Fisheries Service (NMFS) to develop data reporting requirements in the reef fish fishery.

In July 1985, the Florida Marine Fisheries Commission (now Florida Fish and Wildlife Conservation Commission - FWCC) established a Florida state regulation to set a minimum size limit of 18 inches total length for gag, black grouper, and several other shallow-water grouper species. In December 1986 FWCC implemented a state recreational bag limit of five grouper per person per day, with an off-the-water possession limit of 10 per person, for any combination of groupers excluding rock hind and red hind.

Amendment 1 (EA/RIR/IRFA), implemented February 21, 1990, established several reef fish management measures including a 20-inch total length (TL) minimum size limit on red grouper, Nassau grouper, yellowfin grouper, black grouper, and gag. Florida modified its regulations in 1990 to be consistent with the federal regulations.

An August 1999 regulatory amendment, implemented June 19, 2000, increased the commercial size limit for gag and black grouper from 20 to 24 inches TL, increased the recreational size limit for gag from 20 to 22 inches TL, prohibited commercial sale of gag, black, and red grouper each year from February 15 to March 15 (during the peak of gag spawning season), and established two marine reserves (Steamboat Lumps and Madison-Swanson) that are closed year-round to fishing for all species under the Council's jurisdiction. An additional action to further increase the recreational minimum size limit for gag and black grouper by one inch per year until it reached 24 inches TL was disapproved by NMFS. [65 FR 31827].

On August 11, 2009, the Council was notified by NMFS that the Gulf of Mexico gag stock was both overfished and undergoing overfishing based on the results of a 2009 update stock assessment. The remaining summary focuses on the history of gag management since the stock was declared overfished. For a full history of grouper management, refer to Amendment 30B, History of Management Activities Affecting Grouper Harvest. (GMFMC 2008).

Amendments

Amendment 29 (EA/RIR/IRFA), implemented January 1, 2010, established an IFQ system for the commercial grouper and tilefish fisheries.

Amendment 30B (FEIS/RIR/IRFA), implemented May 2009, established annual catch limits (ACLs) and accountability measures (AMs) for gag and red grouper, and managed shallow-water grouper to achieve optimum yield and improve the effectiveness of federal management measures. The amendment (1) defined the gag minimum stock size threshold (MSST) and optimum yield (OY); (2) set interim allocations of gag and red grouper between recreational and commercial fisheries; (3) made adjustments to the gag and red grouper total allowable catches (TACs) to reflect the current status of these stocks; (4) established ACLs and AMs for the commercial and recreational red grouper fisheries, commercial and recreational gag fisheries, and commercial aggregate shallow-water grouper fishery; (5) adjusted recreational grouper bag limits and seasons; (6) adjusted commercial grouper quotas; (7) reduced the red grouper commercial minimum size limit; (8) replaced the one month February 15 through March 14 commercial grouper closed season with a four month seasonal area closure at the Edges, a 390 square nautical mile area in the dominant gag spawning grounds; (9) eliminated the end date for the Madison-Swanson and Steamboat Lumps marine reserves; and (10) required that vessels with federal commercial or charter reef fish permits comply with the more restrictive of state or federal reef fish regulations when fishing in state waters.

Amendment 31 (FEIS/RIR/IRFA), implemented May 26, 2010, (1) prohibited the use of bottom longline gear shoreward of a line approximating the 35-fathom contour from June through August; (2) established a longline endorsement; and (3) restricted the total number of hooks that may be possessed onboard each reef fish bottom longline vessel to 1,000, only 750 of which may be rigged for fishing. The boundary line was initially moved from 20 to 50 fathoms by emergency rule effective May 18, 2009 to protect endangered sea turtles. That rule was replaced on October 16, 2009 by a rule under the Endangered Species Act moving the boundary to 35 fathoms and implementing the maximum hook provisions.

Amendment 32 (EIS/RIR/RFA), implemented March 12, 2012, established a rebuilding plan for gag that would rebuild the stock in 10 years or less. The stock-ACL was set at the yield corresponding to the annual estimate of maximum sustainable yield, and the stock-annual catch target (ACT) was set at the yield corresponding to optimum yield. The stock ACL and ACT were then allocated to the recreational and commercial sectors at 61% and 39%. The initial reduction in gag catch levels resulted in a large decrease in the commercial quota, from 1.410 mp gw to 0.430 mp gw (Table 1.3.1). This created a concern that, once the grouper individual fishing quota (IFQ) system was implemented in 2012, there would be insufficient shares to accommodate the commercial take of gag, forcing an increase in regulatory discards and additional discard mortality. This additional discard mortality had not been taken into consideration in the stock assessment. Therefore, the commercial gag ACT was reduced by an additional 14% to account for dead discards as a result of insufficient gag IFQ shares that had not been accounted for in the assessment. This adjusted ACT became the commercial gag quota. In addition, the amendment revised the use of multi-use IFQ shares and reduced the commercial

gag minimum size limit to 22 inches total length. The amendment set the recreational gag season as July 1 through October 31, with a 22 inch total length (TL) minimum size limit and a 2-fish gag limit within the 4-fish aggregate grouper bag limit. The amendment reduced the commercial minimum size limit of gag from 24 inches to 22 inches TL to reduce discards. The amendment also implemented overage adjustments for the gag recreational sector while the stock was under a rebuilding plan.

Table 1.3.1. Gag ACL, ACT and actual landings in mp gw for 2009-2014.

Year	Comm. ACL	Comm. ACT/Quota	Actual landings	Rec. ACL	Rec. ACT	Actual landings
2009	na	1.320	0.715	2.590	2.060	
2010	na	1.410	0.497	2.640	2.140	1.664
2011	0.616	0.430	0.319	0.964	0.781	0.660
2012	0.788	0.567	0.523	1.232	1.031	0.939
2013	0.956	0.708	0.575	1.495	1.287	1.435
2014	1.110	0.835	0.586	1.720	1.519	0.821

Source: NMFS SERO and Amendment 32. Prior to 2011 there was not a commercial ACL.

Amendment 38 (EA/RIR/RFA) was implemented March 1, 2013. It revised the post-season recreational accountability measure that reduces the length of the recreational season for all shallow-water grouper in the year following a year in which the ACL for gag or red grouper is exceeded. The modified accountability measure reduces the recreational season of only the species for which the ACL was exceeded.

Regulatory Amendments, Emergency and Interim Rules

A rule under the Endangered Species Act was implemented October 16, 2009 that prohibits bottom longlining for Gulf reef fish east of 85º30'W longitude (near Cape San Blas, Florida) shoreward of the 35-fathom depth contour, and it restricts the number of hooks on board to 1,000 hooks per vessel with no more than 750 hooks being fished or rigged for fishing at any given time. The rule replaced the 50 fathom boundary emergency rule in order to relieve social and economic hardship on longline fishermen who were prevented from fishing for shallow-water grouper by the emergency rule, and to keep fishing restrictions consistent with the Amendment 31 actions in place while proposed Amendment 31 is reviewed. [74 FR 53889].

In response to an uncontrolled oil spill resulting from the explosion on April 20, 2010 and subsequent sinking of the Deepwater Horizon oil rig approximately 36 nautical miles (41 statute miles) off the Louisiana coast, NMFS issued an emergency rule to temporarily close a portion of the Gulf of Mexico exclusive economic zone (EEZ) to all fishing [75 FR 24822]. The initial closed area extended from approximately the mouth of the Mississippi River to south of Pensacola, Florida and covered an area of 6,817 square statute miles. The coordinates of the closed area were subsequently modified periodically in response to changes in the size and location of the area affected by the spill. At its largest size on June 1, 2010, the closed area covered 88,522 square statute miles, or approximately 37 percent of the Gulf of Mexico EEZ. This closure was implemented for public safety.

While management measures for the gag rebuilding plan were being developed (Amendment 32), an interim rule was published on December 1, 2010 [75 FR 74654], to reduce gag landings consistent with ending overfishing. This interim rule implemented conservative management measures while a rerun of the update stock assessment was being completed. At issue was the treatment of dead discarded fish in the assessment. The rule reduced the commercial quota to 100,000 pounds gutted weight, suspended the use of red grouper multi-use individual fishing quota allocation so it would not be used to harvest gag, and to temporarily halted the recreational harvest of gag until recreational fishing management measures being developed in Amendment 32 could be implemented to allow harvest at the appropriate levels.

The gag 2009 update stock assessment was rerun in December 2010 addressing the problems with discards identified earlier in 2010. This assessment was reviewed in January 2011 by the Council's Scientific and Statistical Committee and presented to the Council at their February 2011 meeting. The assessment indicated that the gag commercial quota implemented in the December 1, 2010, interim rule could be increased and that a longer recreational season could be implemented. In response, the Council requested an interim rule while they continued to work on long-term measures including a gag rebuilding plan in Amendment 32. The interim rule set the commercial gag quota at 430,000 pounds gutted weight (including the 100,000 pounds previously allowed) for the 2011 fishing year, and temporarily suspended the use of red grouper multi-use IFQ allocation so it cannot be used to harvest gag. It also set a two-month recreational gag fishing season from September 16 through November 15. This temporary rule was effective from June 1, 2011 through November 27, 2011, and was extended for another 186 days or until Amendment 32 was implemented [76 FR 31874].

A December 2012 framework action (GMFMC 2012), implemented July 5, 2013, revised the recreational gag open season. It would still open on July 1, but instead of closing on October 31 it would close on the date when the ACT is projected to be reached. This framework action also modified the February 1 through March 31 recreational closed season on shallow-water grouper to apply only on waters beyond the 20-fathom boundary. In waters shoreward of 20 fathoms, recreational shallow-water grouper fishing would remain open except for gag, which is subject to a separate closed season. This modified closed season took effect with the 2014 calendar year.

An April 2013 framework action (GMFMC 2013), implemented September 3, 2013, removed the requirement to have onboard and use venting tools when releasing reef fish.

1.4 Gag ACL and ACT

Amendment 32 established a rebuilding plan for gag, including yield streams for increasing ACLs and ACTs for 2012 through 2015. For 2015, the rebuilding plan set a stock ACL of 3.12 mp gw. This was an increase of 300,000 pounds, or 10.6%, above the 2014 ACL. The resulting sector ACLs and ACTs for 2015 are shown in Table 1.4.1.

Table 1.4.1. Gag acceptable biological catch (ABC), ACL, and annual catch target (ACT) for 2015 from the gag rebuilding plan (Amendment 32).

		Recreational		Commercial	
Year	ABC/Stock ACL	ACL	ACT	ACL	ACT/Quota
2015+	3.12	1.903	1.708	1.217	0.939

Source: Amendment 32. Units are in million pounds gutted weight. The stock annual catch limit (ACL) is allocated 61% recreational, 39% commercial.

The 2014 benchmark assessment (SEDAR 33, 2014) indicated that the gag stock was no longer overfished or experiencing overfishing as of 2012. However, as discussed in Section 1.1, in 2014 a major red tide event occurred off of the Florida west coast in the region of greatest gag abundance. After reviewing an analysis of the red tide event from the Florida Fish and Wildlife Research Institute, the Scientific and Statistical Committee (SSC) concluded that it would have no significant impact on the gag stock, and recommended OFL and ABC for 2015-2017 based on the rebuilt stock status. The resulting yields from the ABC control rule produced ABC projections that were very close to the OFL yields. The SSC felt that this buffer was too small to provide protection against overfishing (exceeding OFL). Therefore, the SSC decided to recommend a yield stream based on the optimum yield (OY) yields (Table 1.4.2).

Table 1.4.2. OFL, ABC, and OY projections for gag based on SEDAR 33 benchmark assessment and assuming no red tide mortality in 2014.

Year	OFL	ABC from control rule	OY (ABC recommended by SSC
2015	6.77	6.43	5.21
2016	5.84	5.57	4.75
2017	5.38	5.13	4.57
Equilibrium	4.45	4.21	4.46

Units are in million pounds gutted weight.

Upon review of the SEDAR 33 assessment and ABC recommendations, both recreational and commercial members of the Reef Fish Advisory Panel (Reef Fish AP) pointed out they have not observed the rapid recovery of the gag stock that the stock assessment has indicated. The Reef Fish AP therefore recommended that the Council set a pre-cautionary approach to the gag ACL (GMFMC 2014).

The SSC subsequently reviewed several catch-per-unit-effort (CPUE) indices for gag updated through 2014. The updated indices indicated that recreational landings per angler hour have been declining since 2010 for headboats, and since 2008 for charter boats and private vessels. Fishery-independent indices have also shown declining CPUE indices in recent years. In addition, an index of recruitment success for northeastern Gulf of Mexico gag grouper by year based on a model that uses oceanographic conditions to project larval transport model runs projects below average recruitment since 2010 (Figure 1.4.1) (GMFMC 2015).

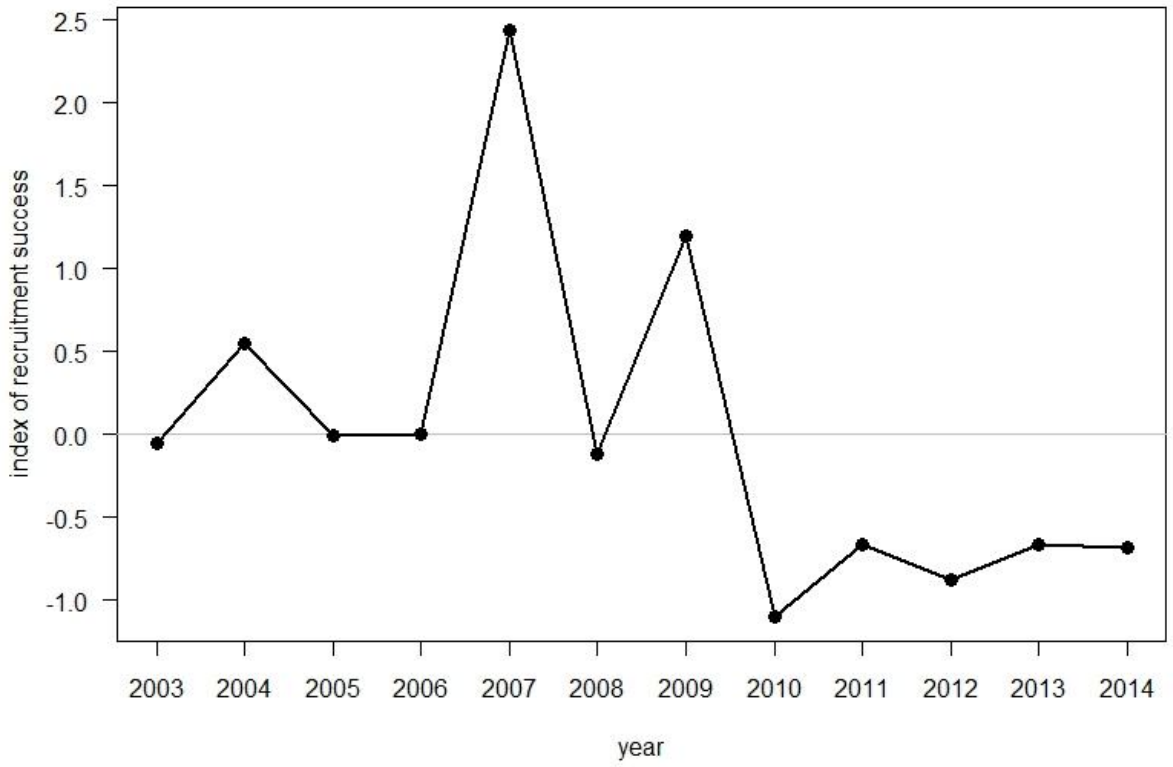

Figure 1.4.1. Expected recruitment anomalies for northeastern Gulf of Mexico gag grouper by year based solely on the effects of oceanographic conditions (update from SEDAR33-DW18).

As a result of the updated analysis, the SSC recommended that, given the recent declines in fishery dependent and fishery independent indices of abundance for gag, that the Council use caution when setting ACL and ACT for 2015-2017.

Based on the recommendations of the Reef Fish AP and the SSC, plus public testimony presented at the June 2015 Council meeting, the Council voted not to change the gag ACL or ACT at this time. The status quo ACLs and ACTs shown in Table 1.4.1 will remain in effect, and all alternatives to change them have been moved to the considered but rejected section of this framework action.

A SEDAR gag update assessment is tentatively scheduled to be conducted in 2016, with results presented to the Council in January 2017.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1 – Gag Recreational Minimum Size Limit

Alternative 1. No Action. The recreational minimum size limit for gag remains at 22 inches total length (TL).

Alternative 2. Set the recreational minimum size limit for gag at 24 inches TL.

Discussion: The primary issue regarding this action is whether the gag recreational minimum size limit in the Gulf should be consistent with the size limit in the South Atlantic, which is 24 inches TL. The range of alternatives is to be either consistent or remain inconsistent. Therefore, only two alternatives are needed to encompass the range of alternatives that address the issue.

An additional issue to consider is the mis-identification of gag and black grouper by recreational fisherman. Black grouper and gag are similar looking, and gag are often called black grouper in the northern Gulf. This can result in confusion if gag and black grouper have different regulations. For this reason, Action 1 (gag minimum size limit) and Action 2 (black grouper minimum size limit) have the same range of alternatives.

Alternative 1, no action, leaves the gag recreational minimum size limit at 22 inches TL. This is inconsistent with the South Atlantic minimum size limit which was set to 24 inches TL for both the recreational and commercial sector in 1999 (SAFMC 1999). The 22 inch TL recreational minimum size limit was implemented in the Gulf of Mexico (Gulf) for gag and black grouper in 2000 (GMFMC 1999). At that time the commercial minimum size limit for gag and black grouper was set at 24 inches TL which was estimated to be the size at 50% female gag maturity (Schirripa and Goodyear 1994). The Council proposed a further increase in the recreational minimum size limit by one inch per year until it reached 24 inches TL. However, that proposal was disapproved by NMFS on the basis that setting both the commercial and recreational minimum size simits at 24 inches TL would disproportionately impact the recreational sector, which catches smaller fish on average than the commercial sector. In 2012, Amendment 32 reduced the commercial minimum size limit for gag to 22 inches TL to reduce discard mortality. More recent analysis has estimated the gag size at 50% female maturity to be 22 inches TL (SEDAR 33, 2014). Therefore, Alternative 1 would keep the gag size limit at the size of 50% female maturity, but it would be inconsistent with the South Atlantic's 24 inch TL minimum size limit. For recreational fishermen in the south Florida area who fish in both Gulf and South Atlantic Council jurisdictions, this can create confusion as to which size limit should be adhered to. In addition, while Florida has a 22 inch TL size limit in state waters in the Gulf and a 24 inch TL size limit in the Atlantic, the Atlantic regulations apply to state waters off Monroe County in both the Atlantic and Gulf.

Alternative 2 sets the gag recreational minimum size limit at 24 inches TL, which is consistent with the South Atlantic's minimum size limit. Florida (north of Monroe County) plus Alabama, Mississippi, Louisiana, and Texas all have a 22 inch TL recreational minimum size limit in their

state waters. Gag reach 22 inches TL at about 3.5 years and take about half a year to grow to 24 inches TL (Table 2.1.1).

Table 2.1.1. Gag size (inches TL) at age (years) based on growth function in SEDAR 33

Age	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Inches	10	16	20	24	28	31	33	36	38	39	41	42	44	45	45	46	47	48	48	49

Increasing the minimum size limit will reduce the retained catch rate and extend the season (Tables 2.3.1 and 2.3.2), but will also increase regulatory discards and discard mortality. Discard mortality rates vary with depth. The 2006 gag stock assessment (SEDAR 10 2006) calculated the overall discard mortality for gag from all sources of recreational fishing at 21%. However, analysis conducted for the current SEDAR 33 (2014) assessment calculated a smaller rate of mortality, 16% from headboats and charter vessels, and 12% from private recreational vessels (Table 2.1.2) (Sauls 2013).

Table 2.1.2. Calculated average depth of released gag by fishing fleet and associated discard mortality rate estimate.

Fishing Fleet	Avg. depth (m)	Sauls (2013)	SEDAR 10 (2006)
Vertical line	31	0.27	0.57
Longline	58	0.27	0.76
Headboat	27	0.16	0.21
Charter vessel	25	0.16	0.21
Private recreational	17	0.12	0.21

From SEDAR 33 (2014), Table 5.2. Original source: Sauls 2013.

Given the speed at which gag grow from 22 inches TL to 24 inches TL, and a relatively low release mortality rate in shallow water, any increase in dead discards from increasing the size limit should be fairly minor.

2.2 Action 2 – Black Grouper Recreational Minimum Size Limit

Alternative 1. No Action. The recreational minimum size limit for black grouper remains at 22 inches TL.

Alternative 2. Set the recreational minimum size limit for black grouper at 24 inches TL.

Discussion: As with gag, the primary issue regarding this action is whether the black grouper recreational minimum size limit in the Gulf should be consistent with the size limit in the South Atlantic, which is 24 inches TL, and whether it should be consistent with the size limit for gag selected in Action 1. Black grouper and gag are similar looking, and gag are often called black grouper in the northern Gulf. This can result in confusion if gag and black grouper have different size limits. The range of alternatives is to be either consistent or remain inconsistent. Black grouper reach 50% female maturity at about 6.5 years of age, and at about 34 inches TL. The minimum size limits being considered are both under the size of 50% female maturity.

However, the SEDAR 19 black grouper stock assessment concluded that the black grouper stock is neither overfished nor undergoing overfishing. The fishing mortality in 2008 was at half the overfishing limit, and the spawning stock biomass level was 40% above the maximum sustainable yield level (SEDAR 19, 2010). Therefore, it is unnecessary to reduce catch rates by increasing the size limit. In addition, black grouper are included as part of the ACL for "other" shallow-water grouper (black, scamp, yellowmouth, and yellowfin grouper). This aggregate ACL has never been reached, and from 2011 to 2013 black grouper contributed to only about 7% of the total recreational shallow water grouper landings (pers. comm. NMFS SERO). Since the issue is consistency of regulations, only two alternatives are needed to encompass the range of alternatives.

Alternative 1, no action, leaves the black grouper recreational minimum size limit at 22 inches TL. This is inconsistent with the South Atlantic minimum size limit which was set to 24 inches TL for both the recreational and commercial sector in 1999 (SAFMC 1999), but is consistent with the commercial minimum size limit of 22 inches TL in the Gulf. As discussed under Action 1, the 22 inch TL recreational minimum size limit was implemented in the Gulf for gag and black grouper in 2000 (GMFMC 1999). The Council proposed a further increase in the recreational minimum size limit by one inch per year until it reached 24 inches TL. However, that proposal was disapproved by NMFS. For recreational fishermen in the south Florida area who fish in both Gulf and South Atlantic Council jurisdictions, the difference in minimum size limit regulations can create confusion as to which size limit should be adhered to. In addition, while Florida has a 22 inch TL recreational size limit in state waters in the Gulf and a 24 inch recreational size limit in the Atlantic, the Atlantic regulations apply to state waters off Monroe County in both the Atlantic and Gulf. Alabama and Louisiana also have a 22 inch TL recreational minimum size limit for black grouper. Mississippi has a 24 inch TL recreational minimum size limit, while Texas has no size limit (Table 2.2.2). Black grouper are primarily a southern Florida stock. They are rarely caught in the northern or western Gulf. However, gag are frequently referred to as black grouper, which can create confusion in identifying gag and black grouper.

Alternative 2 sets the black grouper recreational minimum size limit at 24 inches TL, which is consistent with the South Atlantic's minimum size limit and with the commercial minimum size limit in the Gulf. Florida (north of Monroe County) plus Alabama and Louisiana have a 22 inch TL recreational minimum size limit in their state waters. Mississippi has a 24 inch TL minimum size limit, and Texas has no size limit (Table 2.2.2). Black grouper reach 22 inches TL at just under 3 years and take about half a year to grow to 24 inches TL (Table 2.2.1). Increasing the minimum size limit will reduce the retained catch rate, but since the season is already open year-round (except for a February – March closure in waters less than 20 fathoms), there will be no effect on season length. Increasing the minimum size limit will increase regulatory discards and discard mortality. Given the speed at which black grouper grow from 22 inches to 24 inches, and a relatively low release mortality rate in shallow water, any increase in discard mortality from increasing the size limit should be fairly minor.

Table 2.2.1. Black grouper size (inches TL) at age (years) based on growth function (in SEDAR 19)

Age	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Inches	13	18	22	26	30	33	36	38	40	42	43	44	45	46	47	48	48	49	49	50

Increasing the minimum size limit will increase regulatory discards and discard mortality. The SEDAR 19 (2010) black grouper assessment used a base discard mortality rate of 20% for hook and line fishing. However, due to a lack of empirical data, sensitivity runs were performed that varied this estimate from 10 – 90%, and found that varying the discard mortality rate had a high impact on the results. A new black grouper standard assessment is planned for 2015-2016, under which the discard mortality rate estimate will be reevaluated. Despite the uncertainty regarding the discard mortality rate, given the speed at which black grouper grow from 22 inches to 24 inches, any increase in dead discards from increasing the size limit should be fairly minor.

Table 2.2.2. State minimum size limits for gag and black grouper in inches TL

	FL	AL	MS	LA	TX
Gag	22”	22”	22”	22”	22”
Black Grouper	22”	22”	24”	22”	none

2.3 Action 3 – Modifications to the Recreational Gag Fishing Season

Alternative 1: No action. The recreational gag season will remain July 1 through December 2 (147 days) unless shortened due to a projection that the annual catch level (ACL) will be reached sooner.

Preferred Alternative 2: Remove the December 3-31 fixed closed season. The recreational gag season will remain open through the end of the year or until a projection that the ACL will be reached sooner[1]. Note: If Alternative 2 is selected, Alternative 3 or 4 may also be selected.

Alternative 3: Remove the January through June gag seasonal closure. Begin the season on January 1 and close when the recreational ACL is projected to be reached[1].

> **Option 3a**. Maintain the February 1 through March 31 closed season on recreational harvest of gag beyond the 20-fathom boundary. Fishing for gag will be allowed shoreward of the boundary during those months.
>
> **Option 3b**. Remove the February 1 through March 31 closed season on recreational harvest of gag beyond the 20-fathom boundary. Fishing for gag will be allowed in all federal waters during those months. The 20-fathom closer will continue to be in effect for other shallow-water grouper.
>
> **Option 3c**. Close the gag recreational season from February 1 through March 31 in all Federal waters.

Alternative 4: Remove the January through June gag seasonal closure. Set an opening date for the recreational gag season such that the ACL is projected to be reached on or after December 31 (based on the 2016 ACL).

> **Option 4a**. Maintain the February 1 through March 31 closed season on recreational harvest of gag beyond the 20-fathom boundary. Fishing for gag will be allowed shoreward of the boundary during those months if gag season is open.
>
> **Option 4b**. Remove the February 1 through March 31 closed season on recreational harvest of gag beyond the 20-fathom boundary. Fishing for gag will be allowed in all federal waters during those months if gag season is open. The 20-fathom closer will continue to be in effect for other shallow-water grouper.
>
> **Option 4c**. Open January 1 through 31, close February 1 through March 31 to recreational harvest of gag in all federal waters, and re-open on the date such that the 2016 ACL is projected to be reached on or after December 31.

[1] The recreational season closing date for gag is normally based on when the date when the ACL is projected to be reached. However, under the accountability measures for shallow-water grouper, if the recreational landings for gag exceed the ACL, then in the following year the season will close based on when the ACT is projected to be reached.

Discussion: Gag have a protracted spawning season (December to May), but their peak spawning occurs during February-March in depths of 35 to 45 fathoms. There is currently a closed season for all shallow-water grouper from February 1 through March 31 of each year in offshore waters beyond a series of boundary lines that approximate the 20-fathom depth contour (GMFMC 2012). During this period, recreational harvest of shallow-water grouper (red, black, gag, yellowfin, yellowmouth, and scamp) is prohibited in depths beyond 20 fathoms. Shoreward of this boundary, harvest of shallow-water grouper is allowed, except for gag which is under a January 1 through June 30 closed season. If the open season for gag is modified to include days from February or March, that opening will apply only shoreward of the 20-fathom boundary during those days unless modified by options in the above alternatives. Beyond 20 fathoms, harvest would continue to be closed to all shallow-water grouper including gag.

Alternative 1 leaves the recreational gag season at its current dates of July 1 through December 2. Preliminary landings estimates for 2014 indicate that the recreational sector landed 870,720 lbs. of gag, just 48% of the 2015 ACL (1.72 mp), and 43% of the 2015 ACL (1.903 mp). Without changes to increase the number of fishing days in the recreational season, it is unlikely that the recreational sector will be able to catch its allocation.

Preferred Alternative 2 removes the December 3-31 fixed closed season. The regulations implementing a December 2012 framework action adjusted the recreational season to close on the date when NMFS projected the ACT would be reached. For 2013, NMFS projected that the ACT would be reached on December 2. This closed date was established as a fixed closed season rather than one that could be adjusted each year in response to new projections. Consequently, the recreational gag season continued to close on December 3 regardless of whether the ACT or ACL was reached. This alternative removes the December 3 closure date, specifies that the closure date is to be based on the ACL rather than the ACT (unless accountability measures are in effect), and allows the season to remain open for any length of time or until the ACL (or ACT if season is under accountability measures) is projected to be reached. This alternative can be selected in combination with either **Alternative 3** or **Alternative 4**.

Alternative 3 sets a gag recreational season that opens on January 1 and closes when the recreational ACL is projected to be reached (unless accountability measures are in effect, in which case the closing date is based on when the ACT is projected to be reached). **Option 3a** leaves the February-March shallow-water grouper closed season beyond the 20-fathom boundary in place. Gag recreational harvest would be closed seaward of the 20-fathom boundary but would be open shoreward of the boundary during these months. These days are counted as open days when calculating the number of days in the gag fishing season. **Option 3b** eliminates the February-March closed season beyond the 20-fathom boundary for gag, so that gag could be caught in all waters during this period. The 20-fathom boundary closure would remain in place for other shallow-water grouper. **Option 3c** closes February-March to harvest of gag in all waters. The recreational gag season would open in January, close February and March, and then reopen on April 1 and remain open until the ACL is projected to be reached (or ACT if accountability measures are in effect). Table 2.3.1 shows the projected season dates and number of fishing days under each combination of Action 1 size limit alternative and Action 2, Alternative 3 option.

Alternative 4 sets an opening date for the gag recreational season that is projected to allow the 2016 gag season to remain open (other than fixed closures) through December 31 without exceeding the ACL. **Option 4a** leaves the February-March shallow-water grouper closed season beyond the 20-fathom boundary in place. Gag recreational harvest would be closed seaward of the 20-fathom boundary but would be open shoreward of the boundary during these months if the gag season is open. These days are counted as open days when calculating the number of days in the gag fishing season. **Option 4b** eliminates the February-March closed season beyond the 20-fathom boundary for gag, so that gag could be caught in all waters during this period if the gag season is open. The 20-fathom boundary closure would remain in place for other shallow-water grouper. **Option 4c** closes February-March to harvest of gag in all waters. The recreational gag season would open in January, close February and March, and then reopen on the date that is projected to allow the 2016 gag season to remain open (other than fixed closures) through December 31 without exceeding the ACL. Table 2.3.2 shows the projected season dates and number of fishing days under each combination of Action 1 alternative and Action 2, Alternative 4 option.

Under **Alternative 4**, the opening dates would only be calculated once, when first implemented. These opening dates would then remain in effect in future years unless modified in a framework action. Consequently, it is possible that an ACL (or ACT) closure could occur in future years if the ACL or ACT is reduced or if catch rates increase.

These season projections in the following tables are based on estimates for 2016 only and are subject to revision. The projection model does not account for effort shifting that may take place during a seasonal closure, nor does it consider any changes in the average size of gag over time. Additionally, reductions in harvest from closure dates are relative to future projected landings. Actual future landings may be higher or lower than projected, resulting in harvest reductions being over or underestimated.

Table 2.3.1. Estimated gag recreational seasons under combinations of Action 1 size limits and Action 3, Alternative 3 options.

		Action 3 Alternative 3 Option		
Minimum Size Limit		**Alt. 3a 20-fathom closure in effect**	**Alt. 3b No 20-fathom closure**	**Alt. 3c Feb-Mar closed in all waters**
22 inches TL	ACL	1/1-8/27 (239 days)	1/1-8/23 (235 days)	1/1-1/31 : 4/1-10/6 (220 days)
	ACT	*1/1-8/15 (227 days)*	*1/1-8/10 (222 days)*	*1/1-1/31 : 4/1-8/28 (181 days)*
24 inches TL	ACL	1/1-12/9 (343 days)	1/1-11/30 (334 days)	No ACL closure (306 days)
	ACT	*1/1-11/2 (306 days)*	*1/1-10/21 (294 days)*	*1/1-1/31 : 4/1-11/30 (275 days)*

Season closes at 12:01 am on the day following the last date of the season. The upper numbers are the estimated season dates and days to reach the ACL. The lower numbers (in italics) are the estimated season dates and days to reach the ACT. Seasons will be based on the ACL dates unless the ACL was exceeded in the previous year, in which case season dates will be based on the ACT.

Table 2.3.2. Estimated gag recreational seasons under combinations of Action 1 size limits and Action 3, Alternative 4 options.

		Action 3 Alternative 4 Options		
Minimum Size Limit		**Alt. 3a 20-fathom closure in effect**	**Alt. 3b No 20-fathom closure**	**Alt. 3c Feb-Mar closed in all waters**
22 inches TL	ACL *ACT*	5/28-12/31 (218 days) *6/21-12/31 (194 days)*	5/28-12/31 (218 days) *6/21-12/31 (194 days)*	5/28-12/31 (218 days) *6/21-12/31 (194 days)*
24 inches TL	ACL *ACT*	2/6-12/31 (329 days) *4/18-12/31 (258 days)*	2/19-12/31 (316 days) *4/18-12/31 (258 days)*	No ACL closure (306 days) *4/18-12/31 (258 days)*

Season closes at 12:01 am on the day following the last date of the season. The upper numbers are the estimated season dates and days to reach the ACL. The lower numbers (in italics) are the estimated season dates and days to reach the ACT. Seasons will be based on the ACL dates unless the ACL was exceeded in the previous year, in which case season dates will be based on the ACT.

Considered but Rejected

The Council considered increasing the gag ACLs and modifying the ACTs, but decided on no action due to concerns about low catch rates. In addition, the commercial ACT is used to calculate gag multi-use IFQ shares under the grouper IFQ program. Therefore, alternatives 2 through 5, which would have eliminated the commercial ACT, are not viable as written. See Section 1.4 for a more detailed explanation. The alternatives that were moved to considered but rejected are as follows.

Modifications to the Gag Annual Catch Limits and Annual Catch Targets

All weights are in million pounds gutted weight. The stock annual catch limit (ACL) is allocated 61% recreational, 39% commercial.

Alternative 1. No Action. Maintain the acceptable biological catch (ABC), ACL, and annual catch target (ACT) at the existing 2015 level.

	Recreational			Commercial	
Year	ABC/Stock ACL	ACL	ACT	ACL	ACT/Quota
2015+	3.12	1.903	1.708	1.217	0.939

Alternative 2. Set ACL and ACT mid-way between status quo and the projected equilibrium optimum yield. Set the recreational ACT buffer at 8% based on the ACL/ACT control rule, and do not use a commercial ACT.

	Recreational			Commercial	
Year	Stock ACL	ACL	ACT	ACL/Quota	ACT
2015+	3.80	2.32	2.13	1.48	none

Alternative 3. Set ACL and ACT based upon the projected equilibrium optimum yield. Set the recreational ACT buffer at 8% based on the ACL/ACT control rule, and do not use a commercial ACT.

	Recreational			Commercial	
Year	Stock ACL	ACL	ACT	ACL/Quota	ACT
2015+	4.46	2.72	2.50	1.74	none

Alternative 4. Set ACL and ACT based upon SSC recommendations for ABC, 2015-2017. Set a constant ACL at the lowest ABC recommended by the SSC. Set the recreational ACT buffer at 8% based on the ACL/ACT control rule, and do not use a commercial ACT.

		Recreational		Commercial	
Year	Stock ACL	ACL	ACT	ACL/Quota	ACT
2015+	4.57	2.79	2.57	1.78	none

Alternative 5. Set ACL and ACT based upon SSC recommendations for ABC, 2015-2017. Set the stock ACL = ABC for each year. Set the recreational ACT buffer at 8% based on the ACL/ACT control rule, and do not use a commercial ACT.

		Recreational		Commercial	
Year	ABC/Stock ACL	ACL	ACT	ACL/Quota	ACT
2015	5.21	3.18	2.93	2.03	none
2016	4.75	2.90	2.67	1.85	none
2017+	4.57	2.79	2.57	1.78	none

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7/31/15

Red Snapper Allocation

Final Draft for Amendment 28 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico

Including Draft Environmental Impact Statement, Fishery Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

August 2015

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Gulf of Mexico Reef Fish Amendment 28
Draft Environmental Impact Statement (DEIS) Cover Sheet

Red Snapper Allocation Amendment 28 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico, including a Draft Environmental Impact Statement (DEIS), Fishery Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act Analysis.

Abstract:
This DEIS is prepared pursuant to the National Environmental Policy Act to assess the environmental impacts associated with a regulatory action. The DEIS analyzes the impacts of a reasonable range of alternatives intended to evaluate changing the current commercial: recreational red snapper allocation of 51:49 percent, respectively. The purpose of this action is to reallocate the red snapper harvest consistent with the 2015 red snapper assessment update to ensure the allowable catch and recovery benefits are fairly and equitably allocated between the commercial and recreational sectors to achieve optimum yield.

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Type of Action

( ) Administrative
( ) Draft
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DEIS comment period ends: July 20, 2015
EPA comments on DEIS: July 16, 2015

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ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ALS	Accumulated Landings System
AM	accountability measure
Committee	Reef Fish Committee
Council	Gulf of Mexico Fishery Management Council
DEIS	Draft Environmental Impact Statement
EEZ	exclusive economic zone
EFH	Essential Fish Habitat
EA	Environmental Assessment
EIS	Environmental Impact Statement
EJ	Environmental Justice
ESA	Endangered Species Act
FMP	Fishery Management Plan
FTE	full-time equivalent
HBS	Southeast Headboat Survey
IFQ	individual fishing quota
LAPP	Limited Access Privilege Program
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MRFSS	Marine Recreational Fisheries Survey and Statistics
MRIP	Marine Recreational Information Program
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	overfishing limit
PDF	probability density function
RFFA	reasonably foreseeable future action
RQ	regional quotient
SAV	submerged aquatic vegetation
SEAMAP	Southeast Area Monitoring and Assessment Program
Secretary	Secretary of Commerce
SEDAR	Southeast Data Assessment and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office of NMFS
SESSC	Socioeconomic Scientific and Statistical Committee
SSBR	spawning stock biomass per recruit
SSC	Scientific and Statistical Committee
SPR	spawning potential ratio
TAC	total allowable catch
TL	total length
TPWD	Texas Parks and Wildlife Department
VEC	valued environmental components
VOC	volatile organic compounds
ww	whole weight

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EXECUTIVE SUMMARY

The red snapper stock in the Gulf of Mexico (Gulf) has been declared overfished based on the Status of U.S. Fisheries Report to Congress[1], but is not undergoing overfishing. The Gulf of Mexico Fishery Management Council (Council) has worked toward rebuilding the red snapper stock since 1997 and the stock is currently in the 15th year of a 32-year rebuilding plan.

The most recent stock assessment update[2] indicates the stock is recovering. Currently, the commercial sector fishing for red snapper is regulated by a 13-inch total length (TL) minimum size limit and managed under an individual fishing quota program. Recreational fishing for red snapper is managed with a 16-inch TL minimum size limit, 2-fish bag limit, and a season beginning on June 1 and ending when the recreational quota is projected to be caught. Other reef fish fishery management measures that affect red snapper fishing include permit requirements for the commercial and for-hire sectors as well as season-area closures.

Since 2007, the recreational red snapper season length has become progressively shorter and frustrated the recreational sector because of limited red snapper fishing opportunities. Current recreational fishing season length projections are dependent on several factors, including estimated red snapper average weights and daily catch rates. As the daily catches and average weight of landed red snapper have increased, the season has become progressively shorter despite increasing quotas. As a result, overharvests by the recreational sector have occurred in every year but two. This has led to the annual catch target set below the recreational quota to project season lengths from. The commercial sector has had a year-round season and has consistently harvested below its quota since the implementation of the Individual Fishing Quota (IFQ) program in 2007.

In recent years, the Council has expressed its intent to evaluate and possibly adjust the allocation of reef fish resources between the commercial and recreational sectors. These Council discussions have included consideration of comprehensive changes to the structure of the recreational sector and to sector allocations for red snapper and several grouper species. Reef Fish Amendment 1 (GMFMC 1989) specified a framework procedure for setting the total allowable catch to allow for annual management changes. A part of that specification was to establish a species' allocation. These were based on the percentage of total landings during the base period of 1979-1987. For red snapper, the commercial sector landed 51% and the recreational sector landed 49% of red snapper over the base period, hence the current 51% commercial:49%: recreational allocation.

The Council's evaluation of the allocations between the commercial and recreational sectors is consistent with NOAA's Catch Share Policy[3]. The Policy recommends that, for all fishery

[1] http://www.nmfs.noaa.gov/sfa/fisheries_eco/status_of_fisheries/

[2] The written report for the 2014 red snapper update assessment is in preparation. A version of the PowerPoint presentation describing the assessment was presented to the Council at its January 2015 meeting, and is available at the January 2015 briefing materials on the Council website (http://www.gulfcouncil.org) or by going directly to: http://www.gulfcouncil.org/council_meetings/Briefing%20Materials/BB-01-2015/B%20-%2014%20Red%20Snapper%202014%20Update%20Presentation.pdf

[3] http://www.st.nmfs.noaa.gov/economics/fisheries/commercial/catch-share-program/

management plans (FMPs), "the underlying harvest allocations to specific fishery sectors (i.e., commercial and recreational) should be revisited on a regular basis, and the basis for the allocation should include consideration of conservation, economic, and social criteria used in specifying optimum yield and in furtherance of the goals of the underlying FMP."

In response to the challenges inherent to allocating limited resources between competing interests, the Council established an Ad Hoc Allocation Committee composed of Council members to assist in drafting an allocation policy that would streamline future allocation decisions. The Council's allocation policy was adopted in early 2009 and provides principles, guidelines, and suggested methods for allocating fisheries resources between or within sectors (Appendix B). In February 2012, the National Marine Fisheries Service (NMFS) released a technical memorandum on the principles and practice of allocating fishery harvests, which provides additional guidance to the Council (Plummer et al. 2012).

This action addresses red snapper allocation. Specifically, the purpose of this action is to reallocate the red snapper harvest consistent with the 2015 red snapper assessment update to ensure the allowable catch and recovery benefits are fairly and equitably allocated between the commercial and recreational sectors to achieve optimum yield. The need is to base sector allocations on the best scientific information available, while achieving optimum yield, particularly with respect to food production and recreational opportunities, and rebuilding the red snapper stock.

Reef Fish Amendment 28 analyzes one action with nine alternatives (including no action) that evaluate different allocation ratios of the stock red snapper annual catch limit between the commercial and recreational sectors. The following is a description of the alternatives.

Alternative 1 (no action) would continue to allocate 49% of the red snapper quota to the recreational sector and 51% to the commercial sector. As mentioned above, this allocation was established in 1990 through Amendment 1 and was based on the historical average red snapper landings by each sector for the base period of 1979-1987.

Alternatives 2, **3**, and **4** are similar in that they consider fixed percentage increases to the recreational red snapper allocation of 3%, 5%, and 10%, respectively, from **Alternative 1** (no action). The respective increases would yield recreational allocations of 52%, 54%, and 59%, respectively, of the red snapper annual catch limit. Commercial and recreational red snapper quotas that would result from the alternative allocations included in this action are shown in the table below.

Alternatives 5, **6**, and **7** allocate increases in annual catch limit (ACL) above a certain threshold. At or below the threshold, red snapper would continue to be allocated with 51% of the red snapper ACL comprising the commercial quota and 49% comprising the recreational quota. Above the threshold, either all the increase in the ACL would go to the recreational sector (**Alternative 6**), or 75% of the increase would go to the recreational sector and 25% to the commercial sector (**Alternatives 5** and **7**). For **Alternatives 5** and **6**, the threshold would be 9.12 million pounds (mp), which was the red snapper total allowable catch from 1996 through 2006. The threshold for **Alternative 7** is 10.0 mp. Note that for these alternatives, the annual

percent allocations changes between 2016 and 2017 (see the table below). This is because the the stock annual catch limit for 2016 and 2017 is different. For 2016, the commercial and recreational allocations for these alternatives range from 33.3% and 66.7% (**Alternative 6**) to 43.6% and 56.4% (**Alternative 7**), respectively. For 2017, the commercial and recreational allocations for these alternatives range from 33.9% and 66.1% (**Alternative 6**) to 43.9% and 56.1% (**Alternative 7**), respectively.

Preferred Alternative 8 and **Alternative 9** would base reallocation on the effects of revised recreational data used in the update stock assessment that led to a higher stock ACL. These revisions included calibrated Marine Recreational Information Progrtam (MRIP) catch estimates in the recreational sector and changes in the recreational size selectivity due to recreational fishermen targeting larger fish. During its May 2015 meeting, following a review of sensitivity runs and projections based on the changing allocation scenarios between the commercial and recreational sectors of the Gulf red snapper fisheries (Appendix H), the SSC concluded that if the Council changes the allocation between the two sectors, this would prompt the need to reevaluate the OFL and ABC projections. The SSC meeting summary is available on the Council's ftp server (http://gulfcouncil.org/about/ftp.php). Under **Preferred Alternative 8**, the resulting allocation is calculated by 1) adding the increase in the annual catch limit projections attributed to the using the calibrated MRIP catch estimates to the recreational sector, and 2) averaging the projected increases over a 2015 to 2017 time period. Thus, **Preferred Alternative 8** would allocate 51.5% and 48.5% of the red snapper quota to the recreational and commercial sectors, respectively. In addition to the amount of quota attributable to the recalibration of MRIP catch estimates, **Alternative 9** would allocate the amount of quota attributable to the change in size selectivity by the recreational sector. Amounts of quota due to the change in selectivity were also derived from the projections provided by the SEFSC and included in Appendix H. As done for **Preferred Alternative 8, Alternative 9** averages the allocation change over the 2015 to 2017 time period and yields recreational and commercial allocatations of 57.5% and 42.5%, respectively.

A summary of the alternatives and the percent allocations is provided in a summary table below where ACL is the annual catch limit and Avg is the average.

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 1: Status Quo	2016	13.960	7.120	51.0%	6.840	49.0%
	2017	13.740	7.007	51.0%	6.733	49.0%
Alternative 2: Increase the recreational sector's allocation by **3%**	2016	13.960	6.701	48.0%	7.259	52.0%
	2017	13.740	6.595	48.0%	7.145	52.0%
Alternative 3: Increase the recreational sector's allocation by **5%**	2016	13.960	6.422	46.0%	7.538	54.0%
	2017	13.740	6.320	46.0%	7.420	54.0%
Alternative 4: Increase the recreational sector's allocation by **10%**	2016	13.960	5.724	41.0%	8.236	59.0%
	2017	13.740	5.633	41.0%	8.107	59.0%
Alternative 5: After RS TAC reaches 9.12 mp, allocate 75% of ACL increases to the rec sector	2016	13.960	5.861	42.0%	8.099	58.0%
	2017	13.740	5.806	42.3%	7.934	57.7%
Alternative 6: After RS TAC reaches 9.12 mp, allocate all ACL increases to the rec sector	2016	13.960	4.651	33.3%	9.309	66.7%
	2017	13.740	4.651	33.9%	9.089	66.1%
Alternative 7: After RS TAC reaches 10.0 mp, allocate 75% of ACL increases to the rec sector	2016	13.960	6.090	43.6%	7.870	56.4%
	2017	13.740	6.035	43.9%	7.705	56.1%
Preferred Alternative 8: Allocate increases due to the recalibration of MRIP catch estimates to recreational sector. For each sector, average the percentages between 2015 and 2017.	2015	14.300	6.951	48.6%	7.349	51.4%
	2016	13.960	6.768	48.5%	7.192	51.5%
	2017	13.740	6.645	48.4%	7.095	51.6%
	Avg.			**48.5%**		**51.5%**
Alternative 9: Allocate increases due to the recalibration of MRIP catch estimates and to the change in size selectivity to rec sector;For each sector, average the percentages between 2015 and 2017	2015	14.300	6.105	42.7%	8.195	57.3%
	2016	13.960	5.911	42.3%	8.049	57.7%
	2017	13.740	5.829	42.4%	7.911	57.6%
	Avg.			**42.5%**		**57.5%**

An evaluation of the effects of the alternatives on the physical and biological/ecological environments relative to the no action alternative indicates that this action does not directly affect these environments and likely has only minimal indirect effects. The magnitude of these effects should be positively correlated with the change in allocation. For the physical environment, some effort shifting between sectors is likely to occur for red snapper; however, because the reef fish fishery is a multispecies fishery, any shifting is likely to be small given the overall effort of the fishery as a whole. For the biological/ecological environment, the effects of changes in recreational selectivities towards catching larger fish are unknown. However, increases in the rate of commercial dead discards would be expected to occur as fish in access of the commercial quota that could have been caught under a 51% commercial allocation (Alternative 1) would be discarded. For the recreational sector, this action is expected to result in a decrease in dead

discards as fish caught in access of a 49% recreational allocation (Alternative 1) could be kept rather than discarded. Analyses examining the effect of increasing the recreational allocation could allow the overfishing limit, and consequently the acceptable biological catch, to be increased. However, the effects of increasing the acceptable biological catch would have adverse effects on the eastern portion of the stock. The analyses indicated the spawning potential ratio of the eastern part of the stock could decrease to as low as 4%.

All the alternatives propose to redistribute allocation from the commercial to the recreational sector, thus, the social effects of this action are expected to be negative for the commercial sector and positive for the recreational sector. Although the extent of anticipated disruptions cannot be quantified, effects would be expected relative to the amount of quota that is reallocated, such that greater negative effects correspond with a greater shift in allocation. Direct effects would be expected due to a decrease in available commercial quota. Some instability in the individual fishing quota program would be expected and be evidenced by short-term volatility in the quota market. Potential adverse long-term impacts would result if confidence in the future of the quota market and commercial fishing industry is undermined.

The reallocation alternatives in this amendment would increase the percentage of the red snapper quota allocated to the recreational sector (and decrease the commercial sector's share by an equivalent percentage). Therefore, any one of these alternatives compared to **Alternative 1** would be expected to result in economic losses to the commercial sector and generate economic benefits for the recreational sector. The economic effects expected to result from reallocations of the red snapper quota between the recreational and commercial sectors are usually evaluated based on aggregate (sum of recreational and commercial) changes in economic benefit relative to a baseline allocation (51% commercial and 49% recreational). Although it logically follows that the allocation of greater proportions of the red snapper quota to a given sector would be expected to result in greater economic benefits for that sector and lower economic benefits for the other sector, inferences about overall changes in economic efficiency are not provided here because it cannot be assumed that the resource allocation within each sector is efficient. The resource allocation within the commercial sector, which is managed under an IFQ system, would constitute a reasonable approximation for an efficient resource allocation. However, the open access management approach in the recreational sector cannot be conducive to an efficient allocation of red snapper within the recreational sector. As suggested in Holzer and McConnell (2014) an in Abbott (2015), changes in net benefit estimates based on the traditionally accepted application of the equimarginal principle and associated inferences about economic efficiency are not valid when each sector's quota is not efficiently allocated within the sector. Therefore, it is not possible to provide policy-relevant rankings of the reallocation alternatives in this amendment based on the expected net economic outcome, i.e., the sum of the change in economic benefits to the recreational and commercial sectors. It can only be stated that greater percentages of the red snapper quota allocated to the recreational sector would be expected to increase economic benefits to the recreational sector and decrease benefits to the commercial sector.

In addition to potential changes in net benefits, several other factors should be considered in the evaluation of the economic effects that would be expected to result from the reallocation alternatives. These factors include the Magnuson-Stevens Fishery Conservation and

Management Act mandates, discrepancies between allocations set by Council regulations and actual percentages of total red snapper landings attributed to each sector, potential impacts of the reduced availability of IFQ allocation due to reallocation, and distributional considerations within each sector relative to which individuals/entities may be better or worse off following a reallocation.

This action does directly affect the administrative environment. Putting in a new allocation would require rulemaking, but this is a routine event and should only minimally impact this environment. Indirect effects of setting new allocations require monitoring of the resultant quotas, enforcement of the quotas, and setting management measures to minimize the risk of quotas being exceeded. However, these activities would continue regardless of which alternative is selected. Therefore, the indirect effects from each alternative should be similar.

A cumulative effects analysis identified seven valued environmental components. These were habitat, managed resources (red snapper and other reef fish species), vessel owners, captain and crew (commercial and for-hire), wholesale/retail businesses, anglers, infrastructure, and administration. The cumulative effects of changing the allocation of red snapper on the biophysical environment are likely neutral because it should not have much effect on overall fishing effort and the amount of fish harvested. For the socioeconomic environments, effects would be positive for the recreational sector and negative for the commercial sector.

FISHERY IMPACT STATEMENT

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires that a fishery impact statement (FIS) be prepared for all amendments to fishery management plans. The FIS contains an assessment of the likely biological/conservation, economic, and social effects of the conservation and management measures on fishery participants and their communities, participants in the fisheries conducted in adjacent areas under the authority of another Fishery Management Council, and the safety of human life at sea. Detailed discussion of the expected effects for all alternatives considered is provided in Chapter 4. The FIS provides a summary of these effects.

Red snapper is a federally managed species and is under a rebuilding plan. Under the Magnuson-Stevens Act, the recreational harvest of red snapper is limited to an annual catch limit (ACL) and the recreational harvest of red snapper must be closed once the recreational sector's ACL is determined to have been met. In addition, the recreational sector was recently separated into a for-hire component and private angling component with a portion of the recreational ACL allocated to each component. For both components, the season length is determined by an annual catch target (ACT) set at 20% below the ACL. These components are effective through 2017 unless changed by the Council.

Like the recreational sector, the commercial sector is limited to an ACL and the commercial harvest of red snapper must be closed once the commercial sector's ACL is determined to have been met. However, the commercial sector has been managed under an individual fishing quota (IFQ) program since 2007 and has not exceeded its ACL. The program works by allocation being awarded to IFQ shareholders each year based on the commercial ACL and how many shares they own. They are then able to fish that allocation throughout the year until they run out of allocation. Both shares and allocation are transferable, so a fisherman may purchase either shares or allocation from another fisherman during the fishing year.

In recent years, the Council has expressed its intent to evaluate and possibly adjust the allocation of reef fish resources between the commercial and recreational sectors. These Council discussions have included consideration of comprehensive changes to the structure of the recreational sector and to sector allocations for red snapper and several grouper species. The Council, in examining red snapper reallocation, has been following NOAA's Catch Share Policy[4], the Council's own allocation policy adopted in 2009 (Appendix B), and the National Marine Fisheries Service's (NMFS) technical memorandum on the principles and practice of allocating fishery harvests (Plummer et al. 2012).

In addition to the above information, two other factors have influenced the Council's approach to reallocation. The first was a Southeast Fishery Science Center (SEFSC) study evaluating the economic efficiency of the current allocation of red snapper resources between the commercial and recreational sectors. The study concluded that existing allocations between the commercial and recreational sectors fishing for red snapper are not economically efficient. The study was

[4] http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm

reviewed by the Council's Socioeconomic Scientific and Statistical Committee (SESSC) (for more information on the study and review, visit http://www.gulfcouncil.org/about/ftp.php). The study concluded that existing allocations between the commercial and recreational sectors fishing for red snapper are not economically efficient. The second factor was an updated red snapper stock assessment that included updated Marine Resource Information Program (MRIP) protocols causing an increase in landings estimates, as well as a shift in selectivity to larger, older fish caught by recreational fisherman leading to a new selectivity timeblock in the stock assessment (i.e., for the years 2011-2013). This revised stock assessment projected higher yields than earlier versions.

Amendment 28 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico consists of one management action. This action would reallocate the Gulf of Mexico red snapper stock annual catch limit from the commercial sector to recreational sector based on the increase in allowable harvest due to changes in recreational landings data from the update assessment. The allocation has been 51% of the stock ACL to the commercial sector and 49% to the recreational sector since 1990. The increase for the recreational sector would be the amount attributable to the recalibration of MRIP catch estimates between 2015 and 2017. Commercial and recreational allocations would be based on the average percentages of the red snapper ACL that would be allocated to each sector between 2015 and 2017 and the resulting percentages allocated to each sector (48.5% and 51.5%, respectively) would remain until changed by the Council.

The Gulf of Mexico red snapper stock is managed under the Council's Reef Fish Fishery Management Plan. Therefore, the action from this amendment would not be expected to impact fishery participants in areas adjacent to the Gulf of Mexico, such as fisheries managed under the Caribbean and South Atlantic Councils' jurisdictions.

Biological Effects (Conservation Effects)

The reallocation of the red snapper stock ACL is not expected to have any direct effects for the biological environment as detailed in Sections 4.1.1 and 4.1.2. This is because these actions do not change the stock red snapper ACL, so little change is expected in overall red snapper fishing effort and removals of fish from the stock. However, reallocating the stock ACL is expected to have indirect effects on the red snapper stock. Fishing gears have different selectivity patterns, which refer to a fishing method's ability to target and capture organisms by size and species. This would include the number of discards, mostly sublegal fish or fish caught during seasonal closures, and the mortality associated with releasing these fish. Because the recreational and commercial sectors use gears differently, selectivity patterns would be expected to differ between sectors.

As described in Section 4.1.2, indirect effects from this action on the biological environment could occur if there are changes in the total number of red snapper killed (landed or discarded dead) by either sector or any changes to the frequency or magnitude of any ACL overages due to modifications to the red snapper allocation. Gear types used by the commercial and recreational sectors and their expected effects are discussed in Sections 3.1 and 4.1.1 of this document.

Shifting the allocation to the recreational sector and increasing this sector's ACL would likely result in a decrease in the recreational number of discards because more fish can be kept rather than discarded. However, this benefit to the red snapper stock would likely be offset by increases in discards as a result of a reduced commercial ACL. The discard mortality rate is generally higher in the commercial sector than the recreational sector, in part because of the depth fished and the gear used. Therefore, it is difficult to assess whether this action, in terms of dead discards, would be beneficial, adverse, or have no effect on the red snapper stock. These effects need to be qualified because they are largely based upon fishermen behavior and this behavior could change in response to the changed allocation. Current monitoring of harvests and discards could provide insights into these effects in the future.

With the introduction of the IFQ program, no overages of the commercial ACL have occurred and are not likely to occur in the near future. For the recreational sector, ACL overages have occurred frequently in recent years and could adversely affect the stock's recovery if they continue (NMFS 2013d; SEDAR 31 2013). Recreational ACL overages have occurred because of difficulties assessing past fishing patterns and projecting them into the future to estimate season length (NMFS 2013). These problems could lead to greater recreational overages. However, to reduce the likelihood of overages, the projected recreational season length is now based on an ACT set 20% below the ACL. Harvest information for 2014, the first year the ACT was applied, indicates the recreational ACL was not exceeded.

The relationships among species in marine ecosystems are complex and poorly understood, making the nature and magnitude of ecological effects difficult to predict with any accuracy as a result of this action. The most recent red snapper stock assessment indicated the stock is rebuilding. Consequently, it is possible that red snapper forage and competitor species could decrease in abundance in response to an increase in red snapper abundance. This action, regardless of the alternative, should not affect the red snapper recovery, thus any effects on forage species and competitor species would not likely be different from not taking action. Changes in the bycatch of red snapper are not expected to directly affect other species in the ecosystem. Although birds, dolphins, and other predators may feed on red snapper discards, there is no evidence that any of these species rely on red snapper discards for food.

Economic Effects

The reallocation alternatives in this amendment would increase the percentage of the red snapper quota allocated to the recreational sector (and decrease the commercial sector's share by an equivalent percentage). Therefore, any one of these alternatives compared to **Alternative 1** would be expected to result in economic losses to the commercial sector and generate economic benefits for the recreational sector. The economic effects expected to result from reallocations of the red snapper quota between the recreational and commercial sectors are usually evaluated based on aggregate (sum of recreational and commercial) changes in economic benefit relative to a baseline allocation (51% commercial and 49% recreational). Although it logically follows that the allocation of greater proportions of the red snapper quota to a given sector would be expected to result in greater economic benefits for that sector and lower economic benefits for the other sector, inferences about overall changes in economic efficiency are not provided here because it cannot be assumed that the resource allocation within each sector is efficient. The resource

allocation within the commercial sector, which is managed under an IFQ system, would constitute a reasonable approximation for an efficient resource allocation. However, the open access management approach in the recreational sector cannot be conducive to an efficient allocation of red snapper within the recreational sector. As suggested in Holzer and McConnell (2014) an in Abbott (2015), changes in net benefit estimates based on the traditionally accepted application of the equimarginal principle and associated inferences about economic efficiency are not valid when each sector's quota is not efficiently allocated within the sector. Therefore, it is not possible to provide policy-relevant rankings of the reallocation alternatives in this amendment based on the expected net economic outcome, i.e., the sum of the change in economic benefits to the recreational and commercial sectors. It can only be stated that greater percentages of the red snapper quota allocated to the recreational sector would be expected to increase economic benefits to the recreational sector and decrease benefits to the commercial sector.

Social Effects

All the alternatives propose to redistribute allocation from the commercial to the recreational sector, thus, the social effects of this action are expected to be negative for the commercial sector and positive for the recreational sector. The quality of social impacts differs between the sectors, in that a loss of commercial access to red snapper could affect the livelihoods of commercial fishermen, especially small-scale owner-operators, hired captains and crew who do not own red snapper shares, and the well-being of commercial communities. In addition, some negative effects would be expected for red snapper consumers if decreased commercial access is associated with decreased availability. Although the extent of anticipated disruptions cannot be quantified, effects would be expected relative to the amount of quota that is reallocated, such that greater negative effects for the commercial sector correspond with a greater shift in allocation.

Direct effects would be expected due to a decrease in available commercial quota. Some instability in the individual fishing quota program would be expected and be evidenced by short-term volatility in the quota market. Potential adverse long-term impacts would result if confidence in the future of the quota market and commercial fishing industry is undermined.

For the recreational sector, the gains in recreational quota would provide additional recreational opportunities to retain red snapper and could potentially provide some temporary relief to the shortened recreational fishing seasons. However, these additional opportunities may not result in a longer fishing season in federal waters, as it would be expected that some States continue providing expanded red snapper fishing opportunities in their state waters. Thus, increases to the recreational sector's allocation may not be assumed to benefit recreational anglers Gulf-wide as an unknown amount of the reallocated quota may be caught through extended state water fishing seasons which vary by State.

Red snapper is an iconic Gulf species, and the issue of red snapper reallocation is affected by the conflict between the commercial and recreational sectors over access to the resource. The commercial sector currently retains the majority share of the resource (51%), although for most years, the majority of landings have been made by the recreational sector. With a reallocation of red snapper, the recreational sector will assume the majority share, a benefit sought after by the

recreational sector, regardless of the poundage corresponding to the selected reallocation. Thus, the reallocation of red snapper has an additional socio-cultural significance, symbolizing the inter-sector struggle over a highly sought after resource.

CHAPTER 1. INTRODUCTION

1.1 Background

The red snapper stock in the Gulf of Mexico (Gulf) has been declared overfished based on the Status of U.S. Fisheries Report to Congress[5] and is in the 14th year of a 32-year rebuilding plan. The Gulf of Mexico Fishery Management Council (Council) has worked toward rebuilding the red snapper stock since 1997 and overfishing was projected to have ended in 2009. Overfishing was not officially declared to end in the Status of U.S. Fisheries Report until 2012 after the new overfishing definition developed in the Generic Annual Catch Limits and Accountability Measures (ACLs/AMs) Amendment was implemented (GMFMC 2011a).

Gulf of Mexico Fishery Management Council

- Responsible for conservation and management of fish stocks
- Consists of 17 voting members: 11 appointed by the Secretary of Commerce; 1 representative from each of the 5 Gulf States, the Southeast Regional Administrator of National Marine Fisheries Service (NMFS); and 4 non-voting members
- Responsible for developing fishery management plans and amendments, and recommends actions to NMFS for implementation

National Marine Fisheries Service

- Responsible for compliance with federal, state, and local laws and regulations
- Responsible for preventing overfishing while achieving optimum yield
- Approves, disapproves, or partially approves Council recommendations
- Implements regulations

Since 2007, the recreational red snapper season length has become progressively shorter (Figure 1.1) and overharvests have occurred in every year but one since 2007 (Figure 2.1.1). The commercial sector has the potential for a year-round season and has consistently harvested below its quota since the implementation of the Individual Fishing Quota (IFQ) program in 2007.

[5] http://www.nmfs.noaa.gov/sfa/fisheries_eco/status_of_fisheries/

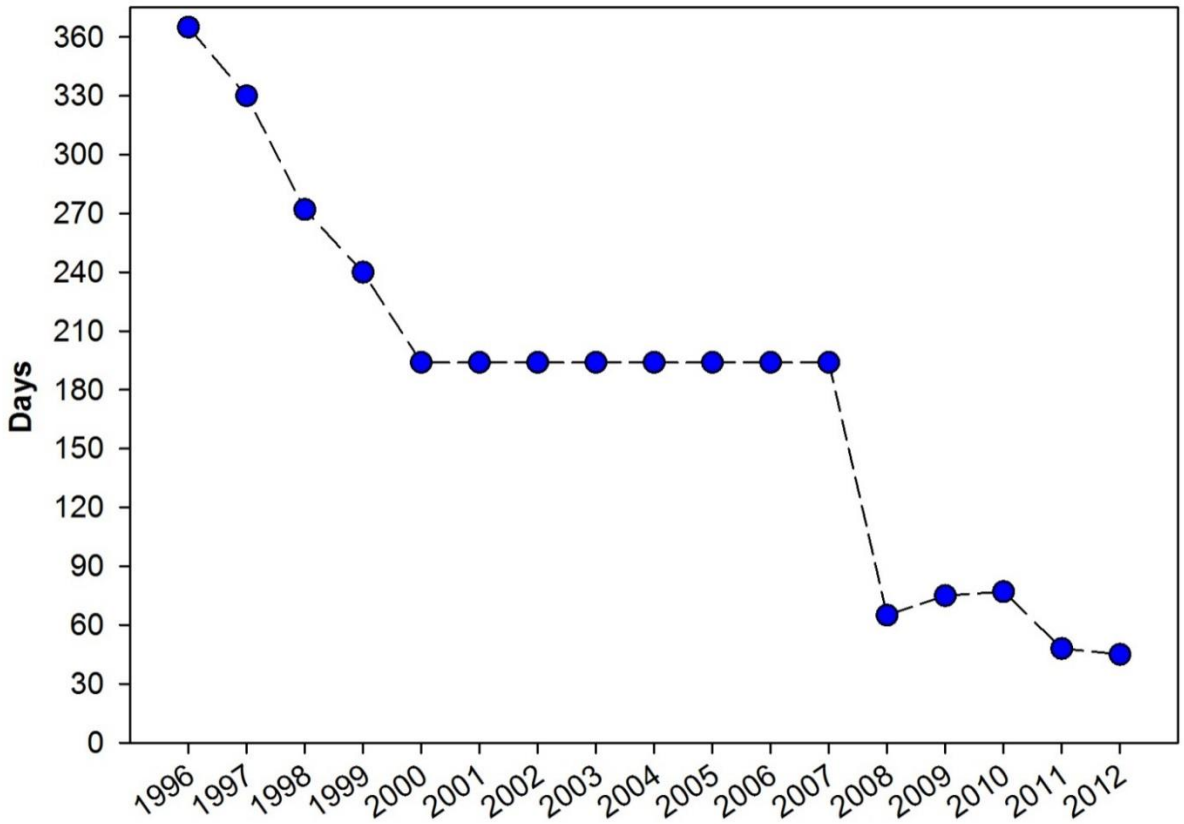

Figure 1.1. Season length (days) that the recreational red snapper season was open from 1996 through 2012 in the Gulf.

Current recreational fishing season length projections are dependent on estimated red snapper average weights and daily catch rates. As the daily catches and average weight of landed red snapper increases the season becomes progressively shorter (NMFS 2012a). Since 2007, when the rebuilding plan was revised, the estimated average weight of red snapper increased from 3.30 to 7.07 lbs whole weight (ww) in 2013 (Table 2.1.3). Following receipt of the 2013 benchmark assessment (SEDAR 31 2013) results, the 8.46 million pound (mp) quota was increased to 11.0 mp, and a supplemental fall recreational season was opened. Thus, the recreational harvest of red snapper was open 42 days in federal waters in 2013. In 2014, the season was open nine days in federal waters.

In January 2013, the Council convened a special meeting of their Reef Fish Committee (Committee) to focus on red snapper management issues. The Committee requested that Amendment 28 focus on red snapper allocation only and decided to address allocation of groupers (i.e., gag, red, and black) in a separate amendment. During the meeting, the Committee discussed and modified the goals and objectives of the Reef Fish FMP, including suggestions for objectives that better focus the purpose and need of this amendment. The requested changes to the document were discussed and adopted by the Council at the April 2014 meeting (see Section 1.2).

A 2014 update assessment was presented in PowerPoint format at the January 2015 meeting of the SSC . In addition to the updated data through the 2013 terminal year, changes in the stock assessment results were primarily due to updated Marine Resource Information Program (MRIP) protocols causing an increase in landings estimates, while a shift in selectivity to larger, older fish by recreational fisherman led to a new selectivity timeblock in the stock assessment (i.e., for the years 2011-2013). See Section 3.2 for more information on the stock assessment.

The SSC reviewed the assessment and determined the ABC could be increased to 13 mp in 2015 with further increases over the next two years. However, the recreational red snapper landings in the original 2014 update assessment were only available through 2013, so the ABC projections for 2015 and beyond were made assuming that the 2014 landings would equal those in 2013. The 2014 recreational landings were actually less than in 2013. It will be several months before the final landings estimates for 2014 are available, but the Southeast Fisheries Science Center (SEFSC) staff made new projections using the provisional 2014 landings. Due to the landings being lower in 2014 than previously assumed, the SEFSC projections concluded that the 2015 ABC could be set higher than the level set by the SSC. However, there would then need to be subsequent annual reductions in order to adhere to the 2032 rebuilding schedule.

The Council asked the SSC to re-evaluate its ABC recommendations in light of the new information on 2014 landings. The SSC convened via internet webinar on February 19, 2015, and recommended an ABC for 2015-2017 provided in Table 1.1.1. Subsequently, the Council met via internet webinar to make a determination for the 2015-2017 red snapper quotas. The Council then approved a framework action to implement these quotas and the recreational annual catch target (ACT), which are listed in Table 1.1.1.

Table 1.1.1. Gulf of Mexico red snapper acceptable biological catch (ABC), total, commercial, and recreational quotas, and recreational annual catch targets (ACT) for 2015-2017 in million pounds (mp) whole weight.

Year	ABC	Total Quota	Commercial Quota	Recreational Quota	Recreational ACT
2015	14.30 mp	14.30 mp	7.293 mp	7.007 mp	5.605 mp
2016	13.96 mp	13.96 mp	7.120 mp	6.840 mp	5.473 mp
2017+	13.74 mp	13.74 mp	7.007 mp	6.733 mp	5.386 mp

Allocation

In recent years, the Council has expressed its intent to evaluate and possibly adjust the allocation of reef fish resources between the commercial and recreational sectors. These Council discussions have included consideration of comprehensive changes to the structure of the recreational sector and to sector allocations for red snapper and several grouper species.

The Council's evaluation of the allocations between the commercial and recreational sectors is consistent with NOAA's Catch Share Policy[6]. The Policy recommends that, for all fishery

[6] http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/index.htm

management plans (FMPs), "the underlying harvest allocations to specific fishery sectors (i.e., commercial and recreational) should be revisited on a regular basis, and the basis for the allocation should include consideration of conservation, economic, and social criteria used in specifying optimum yield and in furtherance of the goals of the underlying FMP" (NOAA's Catch Share Policy 2010, page iii).

In response to the challenges inherent to allocating limited resources between competing interests, the Council established an Ad Hoc Allocation Committee composed of Council members to assist in drafting an allocation policy that would streamline future allocation decisions. The Council's allocation policy was adopted in early 2009 and provides principles, guidelines, and suggested methods for allocating fisheries resources between or within sectors. The principles and guidelines developed by the Council are provided in Appendix B. In February 2012, the National Marine Fisheries Service (NMFS) released a technical memorandum on the principles and practice of allocating fishery harvests, which provides additional guidance to the Council (Plummer et al. 2012).

At the Council's request, the Southeast Fishery Science Center (SEFSC) conducted a study evaluating the economic efficiency of the current allocation of red snapper resources between the commercial and recreational sectors. The study was discussed by the Socioeconomic Scientific and Statistical Committee (SESSC) during its October 2012 meeting. Conclusions of the study and recommendations provided by the SESSC were presented to the Council in October 2012. An economic evaluation of allocation alternatives proposed in this amendment was also requested. Drs. Agar and Carter of the SEFSC conducted the analyses and presented their findings to the SESSC during a November 2013 meeting and a January 2014 follow-up webinar. SESSC recommendations were discussed during the February 2014 Council meeting. Allocation studies conducted by the SEFSC, study reviews and SESSC recommendations relative to red snapper allocation are available on the Council's ftp in the archived Socicoeconomic SSC meetings folder (http://www.gulfcouncil.org/about/ftp.php).

1.2 Purpose and Need

This regulatory action addresses red snapper allocation. Specifically, the purpose of this action is to reallocate the red snapper harvest consistent with the 2015 red snapper assessment update to ensure the allowable catch and recovery benefits are fairly and equitably allocated between the commercial and recreational sectors to achieve optimum yield.

The need is to base sector allocations on the best scientific information available to determine sector allocations, while achieving optimum yield, particularly with respect to food production and recreational opportunities, and rebuilding the red snapper stock.

1.3 History of Management

This history of management covers events pertinent to red snapper allocation, setting quotas, and AMs. A complete history of management for the FMP is available on the Council's website: http://www.gulfcouncil.org/fishery_management_plans/reef_fish_management.php including recent red snapper actions and a history of red snapper management through 2006 is presented in Hood et al. (2007). The final rule for the Reef Fish FMP (with its associated environmental impact statement [EIS]) (GMFMC 1981) was effective November 8, 1984, and defined the Reef Fish fishery management unit to include red snapper and other important reef fish. A detailed history of the commercial red snapper IFQ program and a discussion of the program performance during the first years of the program are provided in Agar and al. (2014).

Currently, the commercial sector fishing for red snapper is regulated by a 13-inch total length (TL) minimum size limit and managed under an individual fishing quota program. The individual fishing quota program was established through Amendment 26 (GMFMC 2006) and information on this program including annual reports and the program's five-year review can be found on the NMFS' Southeast Regional Office's web page (https://portal.southeast.fisheries.noaa.gov/cs/main.html#). Recreational fishing for red snapper is managed with a 16-inch TL minimum size limit, 2-fish bag limit, and a season beginning on June 1 and ending when the recreational quota is projected to be caught. Other reef fish fishery management measures that affect red snapper fishing include permit requirements for the commercial and for-hire sectors as well as season-area closures. These measures are discussed in more detail in Section 3.1.

Red snapper allocation and quotas: The final rule for **Amendment 1** (GMFMC 1989) to the Reef Fish FMP (with its associated environmental assessment (EA), regulatory impact review (RIR) was effective in February 1990. The amendment specified a framework procedure for setting the total allowable catch (TAC) to allow for annual management changes. A part of that specification was to establish a species' allocation. These were based on the percentage of total landings during the base period of 1979-1987. For red snapper, the commercial sector landed 51% and the recreational sector landed 49% of red snapper over the base period, hence the current 51% commercial:49%: recreational allocation. **Amendment 1** also established a commercial quota allowing the Regional Administrator to close commercial red snapper fishing when the quota was caught. The recreational quota was established through a 1997 regulatory amendment (with its associated EA and RIR) (GMFMC 1995) with a final rule effective in October 1997. Prior to 1997, the recreational sector had exceeded its allocation of the red snapper TAC, though the overages were declining through more restrictive recreational management measures (Figure 2.1.1). With the establishment of a recreational quota, the Regional Administrator was authorized to close the recreational season when the quota is reached as required by the Magnuson-Stevens Act.

Amendment 40 was approved on April 2015. This amendment divides the recreational red snapper quota into two component subquotas, with the federal for-hire component allocated 42.3% of the recreational quota and the private angling component allocated 57.7% of the red snapper recreational quota. This division sunsets three calendar years after implementation. Season closures are determined separately for each component based on the component's annual

catch target (ACT). The final rule to implement this amendment published on April 22, 2015 [80 FR 22422].

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Allocation of Red Snapper

Alternative 1: No Action – Maintain the allocation set in Reef Fish Amendment 1. The commercial and recreational red snapper allocations remain at 51% and 49% of the red snapper quota[7], respectively. Based on red snapper quotas between 2016 and 2017, resulting allocations (in million pounds whole weight and in percent) to the commercial and recreational sectors are:

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 1: Status Quo	2016	13.960	7.120	51.0%	6.840	49.0%
	2017	13.740	7.007	51.0%	6.733	49.0%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 1	2016	6.840	5.472	3.947	3.158	2.893	2.315
	2017	6.733	5.386	3.885	3.108	2.848	2.278

Reallocation of Quota

Alternative 2: Increase the recreational sector's allocation by **3 percent**[8]; allocate 48% of the red snapper quota to the commercial sector and 52% of the quota to the recreational sector. Based on red snapper quotas between 2016 and 2017, resulting allocations (in million pounds whole weight and in percent) to the commercial and recreational sectors are:

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 2: Increase the recreational sector's allocation by **3%**	2016	13.960	6.701	48.0%	7.259	52.0%
	2017	13.740	6.595	48.0%	7.145	52.0%

[7] The red snapper quota (commercial and recreational quotas) is equivalent to a red snapper ACL.

[8] Unless otherwise indicated, specified percentages refer to percentages of the red snapper quota.

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 2	2016	7.259	5.807	4.189	3.351	3.071	2.457
	2017	7.145	5.716	4.123	3.298	3.022	2.418

Alternative 3: Increase the recreational sector's allocation by **5 percent**; allocate 46% of the red snapper quota to the commercial sector and 54% of the quota to the recreational sector. Based on red snapper quotas between 2016 and 2017, resulting allocations (in million pounds whole weight and in percent) to the commercial and recreational sectors are:

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 3: Increase the recreational sector's allocation by **5%**	2016	13.960	6.422	46.0%	7.538	54.0%
	2017	13.740	6.320	46.0%	7.420	54.0%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 3	2016	7.538	6.031	4.350	3.480	3.189	2.551
	2017	7.420	5.936	4.281	3.425	3.138	2.511

Alternative 4: Increase the recreational sector's allocation by **10 percent**; allocate 41% of the red snapper quota to the commercial sector and 59% of the quota to the recreational sector. Based on red snapper quotas between 2016 and 2017, resulting allocations (in million pounds whole weight and in percent) to the commercial and recreational sectors are:

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 4: Increase the recreational sector's allocation by **10%**	2016	13.960	5.724	41.0%	8.236	59.0%
	2017	13.740	5.633	41.0%	8.107	59.0%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 4	2016	8.236	6.589	4.752	3.802	3.484	2.787
	2017	8.107	6.485	4.678	3.742	3.429	2.743

Allocation of Quota Increases

Alternative 5: If the red snapper quota is less than or equal to 9.12 million pounds (mp), maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper quota, respectively. If the red snapper quota is greater than 9.12 mp, allocate 75% of the amount in excess of 9.12 mp to the recreational sector and 25% to the commercial sector. Based on red snapper quotas between 2016 and 2017, resulting allocations (in million pounds whole weight and in percent) to the commercial and recreational sectors are:

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 5: After RS TAC reaches 9.12 mp, allocate 75% of ACL increases to the rec sector	2016	13.960	5.861	42.0%	8.099	58.0%
	2017	13.740	5.806	42.3%	7.934	57.7%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 5	2016	8.099	6.479	4.673	3.738	3.426	2.741
	2017	7.934	6.347	4.578	3.662	3.356	2.685

Alternative 6: If the red snapper quota is less than or equal to 9.12 million pounds (mp), maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper quota, respectively. If the red snapper quota is greater than 9.12 mp, allocate 100% of the amount in excess of 9.12 mp to the recreational sector. Based on red snapper quotas between 2016 and 2017, resulting allocations (in million pounds whole weight and in percent) to the commercial and recreational sectors are:

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 6: After RS TAC reaches 9.12 mp, allocate all ACL increases to the rec sector	2016	13.960	4.651	33.3%	9.309	66.7%
	2017	13.740	4.651	33.9%	9.089	66.1%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 6	2016	9.309	7.447	5.371	4.297	3.938	3.150
	2017	9.089	7.271	5.244	4.195	3.845	3.076

Alternative 7: If the red snapper quota is less than or equal to 10.0 million pounds (mp), maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper quota, respectively. If the red snapper quota is greater than 10.0 mp, allocate 75% of the amount in excess of 10.0 mp to the recreational sector and 25% to the commercial sector. Based on red snapper quotas between 2016 and 2017, resulting allocations (in million pounds whole weight and in percent) to the commercial and recreational sectors are:

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 7: After RS TAC reaches 10.0 mp, allocate 75% of ACL increases to the rec sector	2016	13.960	6.090	43.6%	7.870	56.4%
	2017	13.740	6.035	43.9%	7.705	56.1%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 7	2016	7.870	6.296	4.541	3.633	3.329	2.663
	2017	7.705	6.164	4.446	3.557	3.259	2.607

Reallocation of Quota based on Changes in Recreational Data

Preferred Alternative 8: The increase in allowable harvest (due to changes in recreational data) from the update assessment will be allocated to the recreational sector. The increase for the recreational sector should be the amount attributable to the recalibration of MRIP catch estimates between 2015 and 2017. Commercial and recreational allocations are based on the average percentages of the red snapper quota that would be allocated to each sector between 2015 and 2017.

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Preferred Alternative 8: Allocate increases due to the recalibration of MRIP catch estimates to recreational sector; Average percentages between 2015 and 2017	2016	13.960	6.768	48.5%	7.192	51.5%
	2017	13.740	6.664	48.5%	7.076	51.5%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Preferred Alternative 8	2016	7.192	5.754	4.150	3.320	3.042	2.434
	2017	7.076	5.661	4.083	3.266	2.993	2.395

Alternative 9: The increase in allowable harvest (due to changes in recreational data) from the update assessment will be allocated to the recreational sector. The increase for the recreational sector should be the amount attributable to the change in size selectivity and to the recalibration of MRIP catch estimates between 2015 and 2017. Commercial and recreational allocations are based on the average percentages of the red snapper quota that would be allocated to each sector between 2015 and 2017.

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 9: Allocate increases due to the recalibration of MRIP catch estimates and to the change in size selectivity to rec sector; Average percentages between 2015 and 2017	2016	13.960	5.933	42.5%	8.027	57.5%
	2017	13.740	5.840	42.5%	7.901	57.5%

For the components of the recreational sector, resulting ACLs and ACTs (in million pounds whole weight) are as follows:

Alternative	Year	Total Recreational		Private Angling Component		Federal For-Hire Ccomponent	
		ACL	ACT	ACL	ACT	ACL	ACT
Alternative 9	2016	8.027	6.422	4.632	3.705	3.395	2.716
	2017	7.901	6.320	4.559	3.647	3.342	2.674

Discussion

The Gulf of Mexico Fishery Management Council (Council) initially considered alternatives that increased the allocation above the commercial sector's current 51%. However, in considering the economic analyses conducted by the Southeast Fisheries Science Center (SEFSC) (which concluded that the red snapoper allocation between sectors is not efficient) and the loss of fishing opportunities by the recreational sector, the Council concluded that such a reallocation would not meet the purpose and need of this action. The issue was discussed during a special Gulf Council Reef Fish Committee meeting held in January 2013 in Tampa, FL. It was requested that alternatives that would increase the percentage of the red snapper quota allocated to the commercial sector be removed from the amenment. Therefore, this amendment includes a no action alternative and alternatives increasing the recreational sector's allocation above 49%.

Alternative 1 would continue to allocate 49% of the red snapper quota to the recreational sector and 51% to the commercial sector. This allocation was established in 1990 through Reef Fish Amendment 1 (GMFMC 1989) and was based on the historical average red snapper landings by each sector for the base period of 1979-1987. Average percentages landed by each sector for various time series are provided in Table 2.1.1. Annual commercial and recreational red snapper landings between 1986 and 2013 are provided in Table 2.1.2.

Table 2.1.1. Red snapper average percentages landed by the commercial and recreational sectors.

Years	Recreational	Commercial
1986-2013	55.7%	44.3%
1991-2013	58.3%	41.7%
1996-2013	57.0%	43.0%
2001-2013	58.5%	41.5%
2006-2013	60.1%	39.9%

For the recreational and commercial sectors, the differences between the quotas and annual landings are provided in Figure 2.1.1. The Council has had limited success in consistently constraining the amounts harvested by the commercial and recreational sectors to their allotted

share of the red snapper quota. As a result, the actual proportions of the aggregate quota harvested by each sector have fluctuated widely over time and consistently departed from the sector allocation set by the Council. Figure 2.1.2 compares the resource allocation established by the Council with the proportions of red snapper landings attributed to the recreational and commercial sectors.

Table 2.1.2. Recreational and commercial red snapper landings, in million pounds whole weight and in percent of the total landings.

Year	Recreational		Commercial	
	Pounds	Percent	Pounds	Percent
1986	3.491	48.55%	3.700	51.45%
1987	2.090	40.51%	3.069	59.49%
1988	3.139	44.22%	3.960	55.78%
1989	2.940	48.69%	3.098	51.31%
1990	1.625	38.00%	2.650	62.00%
1991	2.917	56.86%	2.213	43.14%
1992	4.618	59.79%	3.106	40.21%
1993	7.161	67.97%	3.374	32.03%
1994	6.076	65.35%	3.222	34.65%
1995	5.464	65.06%	2.934	34.94%
1996	5.339	55.31%	4.313	44.69%
1997	6.804	58.59%	4.810	41.41%
1998	4.854	50.91%	4.680	49.09%
1999	4.972	50.49%	4.876	49.51%
2000	4.750	49.55%	4.837	50.45%
2001	5.252	53.18%	4.625	46.82%
2002	6.535	57.76%	4.779	42.24%
2003	6.105	58.07%	4.409	41.93%
2004	6.460	58.14%	4.651	41.86%
2005	4.676	53.31%	4.096	46.69%
2006	4.131	47.05%	4.649	52.95%
2007	5.809	64.60%	3.183	35.40%
2008	4.056	62.02%	2.484	37.98%
2009	5.597	69.26%	2.484	30.74%
2010	2.651	43.87%	3.392	56.13%
2011	6.734	65.20%	3.595	34.80%
2012	7.524	65.09%	4.036	34.91%
2013	9.659	63.93%	5.449	36.06%

Sources: Recreational landings from the Southeast Fisheries Science Center including landings from the Marine Recreational Information Program, Texas Parks and Wildlife Department, and the Southeast Headboat Survey. Commercial landings from the Southeast Data Assessment and Review 31 Data Workshop Report (1990-2006),

commercial catch allowances report from the National Marine Fisheries Service /Southeast Regional Office IFQ landings website (2007-2013): http://sero.nmfs.noaa.gov/sf/ifq/CommercialQuotasCatchAllowanceTable.pdf. Commercial landings in gutted weight were multiplied by 1.11 to convert to ww.

Table 2.1.3. Recreational red snapper landings, in pounds whole weight and in number of fish.

Year	Recreational Landings		Average Weight
	Pounds	Number	
1986	3,490,842	1,469,588	2.38
1987	2,089,548	1,175,076	1.78
1988	3,139,142	1,412,895	2.22
1989	2,940,340	1,207,466	2.44
1990	1,624,534	725,405	2.24
1991	2,917,126	1,231,079	2.37
1992	4,618,290	1,837,446	2.51
1993	7,161,264	2,496,649	2.87
1994	6,075,760	1,828,077	3.32
1995	5,463,742	1,578,667	3.46
1996	5,338,889	1,348,792	3.96
1997	6,804,229	1,853,371	3.67
1998	4,854,098	1,447,264	3.35
1999	4,972,407	1,210,655	4.11
2000	4,750,106	1,199,578	3.96
2001	5,252,285	1,302,021	4.03
2002	6,535,146	1,676,023	3.90
2003	6,105,444	1,535,670	3.98
2004	6,460,244	1,740,770	3.71
2005	4,675,920	1,209,434	3.87
2006	4,131,131	1,225,413	3.37
2007	5,808,795	1,758,320	3.30
2008	4,055,877	941,241	4.31
2009	5,596,857	1,141,275	4.90
2010	2,650,851	486,791	5.45
2011	6,734,109	1,014,046	6.64
2012	7,524,241	1,058,309	7.11
2013	9,658,791	1,366,165	7.07

Sources: Recreational landings from the Southeast Fisheries Science Center including landings from the Marine Recreational Information Program, Texas Parks and Wildlife Department, and the Southeast Headboat Survey.

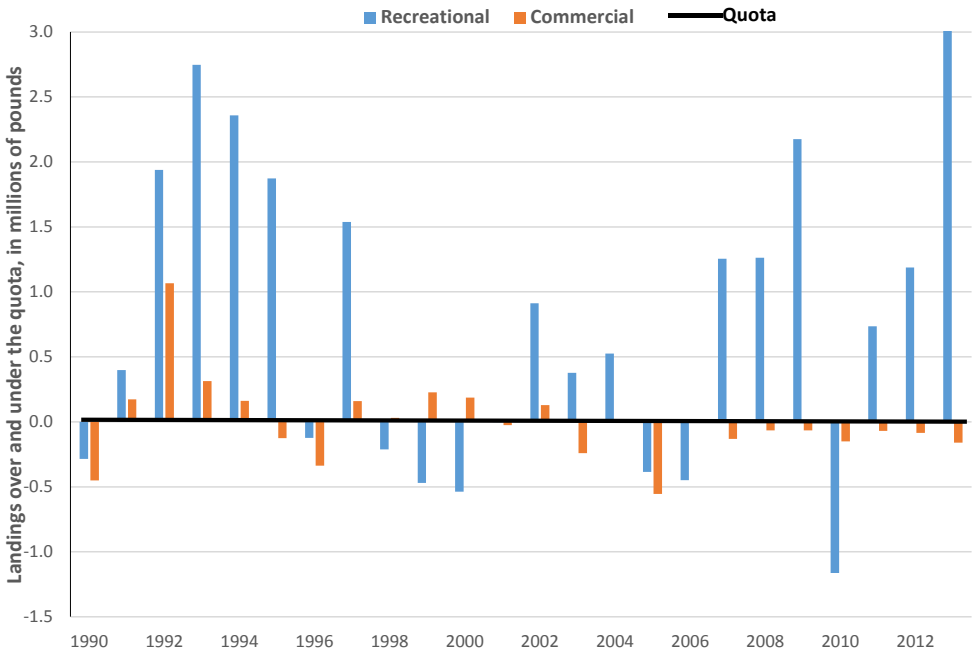

Figure 2.1.1. Differences between annual red snapper landings and quotas by sector, 1990 – 2013. For each sector, positive values indicate that landings are greater than the quota; negative values indicate that landings are less than the quota.

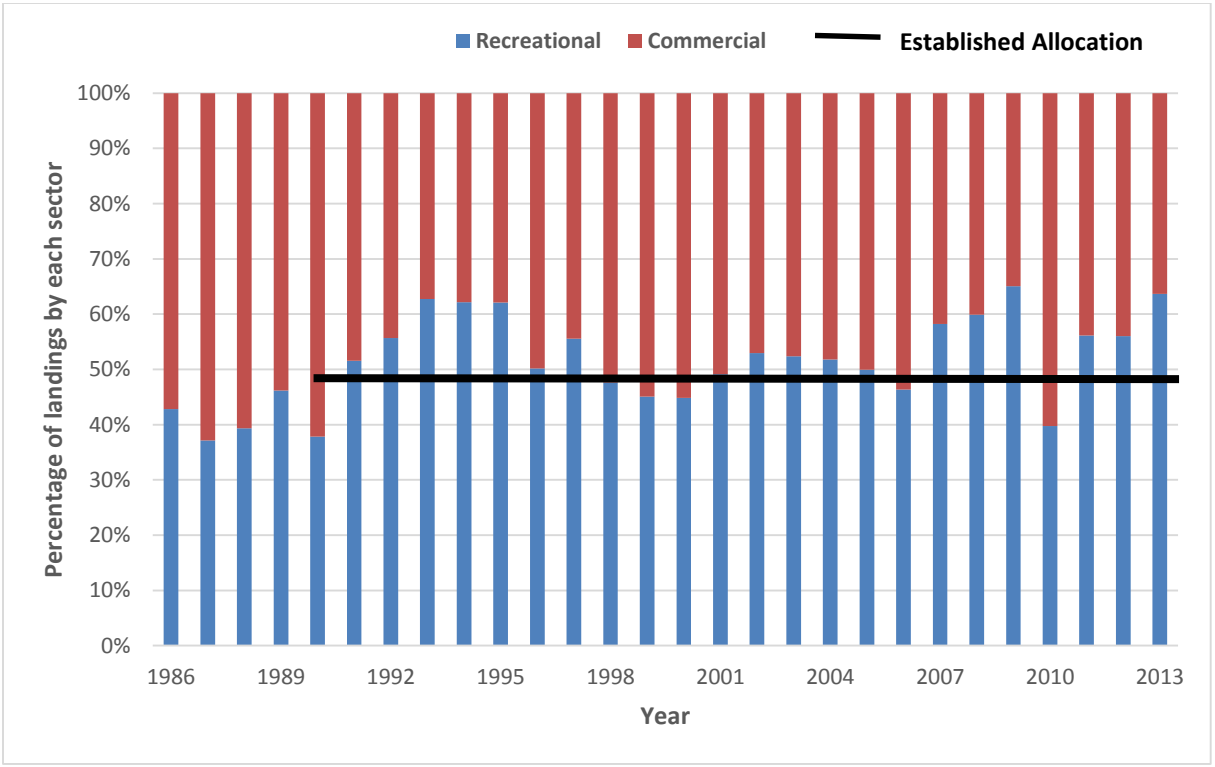

Figure 2.1.2. Comparison between the proportions of red snapper landed by each sector and the commercial/recreational split of the quota (established allocation of 51% and 49% to the commercial and recreational sectors, respectively).

Based on a status quo aggregate red snapper quota of 14.3 million pounds (mp) in 2015, **Alternative 1** would allocate 7.293 mp and 7.007 mp to the commercial and recreational sectors in 2015, respectively. **Alternatives 2, 3,** and **4** consider increases to the recreational red snapper allocation by 3%, 5%, and 10% from the status quo (**Alternative 1)**, increasing the recreational allocation to 52%, 54%, and 59% of the red snapper quota, respectively. Table 2.1.4 provides a summary of the commercial and recreational red snapper quotas that would result from the alternative allocations included in this action.

Table 2.1.4. Commercial and recreational red snapper allocations (mp, whole weight) based on 2016-2017 red snapper quotas (total ACLs).

Alternative	Year	Total ACL	Commercial		Recreational	
			ACL	Percent	ACL	Percent
Alternative 1: Status Quo	2016	13.960	7.120	51.0%	6.840	49.0%
	2017	13.740	7.007	51.0%	6.733	49.0%
Alternative 2: Increase the recreational sector's allocation by **3%**	2016	13.960	6.701	48.0%	7.259	52.0%
	2017	13.740	6.595	48.0%	7.145	52.0%
Alternative 3: Increase the recreational sector's allocation by **5%**	2016	13.960	6.422	46.0%	7.538	54.0%
	2017	13.740	6.320	46.0%	7.420	54.0%
Alternative 4: Increase the recreational sector's allocation by **10%**	2016	13.960	5.724	41.0%	8.236	59.0%
	2017	13.740	5.633	41.0%	8.107	59.0%
Alternative 5: After RS TAC reaches 9.12 mp, allocate 75% of ACL increases to the recreational sector	2016	13.960	5.861	42.0%	8.099	58.0%
	2017	13.740	5.806	42.3%	7.934	57.7%
Alternative 6: After RS TAC reaches 9.12 mp, allocate all ACL increases to the recreational sector	2016	13.960	4.651	33.3%	9.309	66.7%
	2017	13.740	4.651	33.9%	9.089	66.1%
Alternative 7: After RS TAC reaches 10.0 mp, allocate 75% of ACL increases to the recreational sector	2016	13.960	6.090	43.6%	7.870	56.4%
	2017	13.740	6.035	43.9%	7.705	56.1%
Preferred Alternative 8: Allocate increases due to the recalibration of MRIP catch estimates to recreational sector; Average percentages between 2015 and 2017	2016	13.960	6.768	48.5%	7.192	51.5%
	2017	13.740	6.664	48.5%	7.076	51.5%
Alternative 9: Allocate increases due to the recalibration of MRIP catch estimates and to the change in size selectivity to rec sector; Average percentages between 2015 and 2017	2016	13.960	5.933	42.5%	8.027	57.5%
	2017	13.740	5.840	42.5%	7.901	57.5%

Alternative 5 would continue to allocate 51% of the red snapper quota to the commercial sector and 49% of the red snapper quota to the recreational sector as long as the aggregate red snapper quota is below or equal to 9.12 mp, which was the total allowable catch from 1996 through 2006. Once the threshold is reached, 75% of quota amounts in excess of 9.12 mp would be allocated to the recreational sector and 25% to the commercial sector. In 2015, with a red snapper aggreagate quota of 14.3 mp, **Alternative 5** would allocate 5.946 mp and 8.354 mp to the commercial and recreational sectors, respectively. In percentage points, **Alternative 5** would allocate 41.6% and 58.4% of the red snapper quota to the commercial and recreational sectors in 2015, respectively. Provided the quota is at least 9.12 mp, any increase or decrease from the 14.30 mp aggregate quota will result in different percentages allocated to each sector. For example, with a red snapper quota of 13.74 mp in 2016, **Alternative 5** would allocate 42.0% and 58.0% of the red snapper quota to the commercial and recreational sectors, respectively

Like **Alternative 5**, **Alternative 6** would maintain the 51/49 commercial/recreational split of the red snapper quota as long as the red snapper quota is less than or equal to 9.12 mp. However, if the red snapper quota is greater than 9.12 mp, **Alternative 6** would allocate the totality of the quota greater than 9.12 mp to the recreational sector, rather than 75% of the quota above the baseline of 9.12 mp, as in **Alternative 5**. In 2015, with a red snapper aggreagate quota of 14.3 mp, **Alternative 6** would allocate 4.651 mp and 9.649 mp to the commercial and recreational sectors, respectively. In percentage points, **Alternative 6** would allocate 32.5% and 67.5% of the red snapper quota to the commercial and recreational sectors in 2015, respectively. Again, provided the red snapper aggregate quota is at least 9.12 mp, any increase or decrease from the 14.30 mp aggregate quota will result in different percentages allocated to each sector.

Alternative 7 would continue to allocate 51% of the red snapper quota to the commercial sector and 49% of the red snapper quota to the recreational sector as long as the aggregate red snapper quota is below or equal to 10.0 mp. However, if the red snapper quota is greater than 10.0 mp, 75% of quota amounts in excess of 10.0 mp would be allocated to the recreational sector and 25% to the commercial sector.

Based on an aggregate red snapper quota of 14.30 mp in 2015, **Alternative 7** would allocate 6.175 mp and 8.125 mp to the commercial and recreational sectors, respectively. In percentage points, **Alternative 7** would allocate 43.2% and 56.8% of the red snapper quota to the commercial and recreational sectors in 2015, respectively. Provided the quota is at least 10.0 mp, any increase or decrease from the 14.30 mp aggregate quota will result in different percentages allocated to each sector.

Preferred Alternative 8 would allocate quota increases due to the recalibration of MRIP catch estimates to the recreational sector. The resulting allocation is therefore determined by first allocating the quota that would result if MRIP catch estimates were not recalibrating according to the status quo percentages (51% commercial and 49% recreational) and second, adding the amount of quota estimated to result from the recalibration to the recreationa sector. For 2015 to 2017, the amounts of quota attributable to the MRIP recalibration were derived from projections provided by the SEFSC (Appendix H). Percentages of the red snapper quota allocated to each sector on an annual basis would fluctuate based on the quota and on the amounts attributed to the recalibration. However, for **Preferred Alternative 8,** the Council elected to base the

commercial and recreational allocations on the average percentages of the red snapper quota that would be allocated to each sector between 2015 and 2017. Consequently, **Preferred Alternative 8** would allocate 48.5% and 51.5% of the red snapper quota to the commercial and recreational sectors, respectively.

In addition to the amount of quota attributable to the recalibration of MRIP catch estimates, **Alternative 9** would allocate the amount of quota attributable to the change in size selectivity to the recreational sector. Amounts of quota due to the change in selectivity were also derived from the projections provided by the SEFSC and included in Appendix H. As **Preferred Alternative 8, Alternative 9** bases the commercial and recreational allocations on the average percentages of the red snapper quota that would be allocated to each sector between 2015 and 2017. **Alternative 9** would allocate 42.5% and 57.5% of the red snapper quota to the commercial and recreational sectors, respectively. Quota amounts and percentages allocated to each sector between 2016 and 2017 are provided in Table 2.1.4.

As illustrated in Figure 2.1.2, the percentages of the red snapper aggregate quota harvested by the commercial and recreational sectors do not reflect the established allocation of 51% and 49% assigned to the commercial and recreational sectors, respectively. Alongside allocation discussions and reallocation decisions, the Council has implemented management measures (accountability measures) intended to reduce the recreational quota overages, thereby minimizing the difference between the proportion of red snapper landings attributed to each sector and the allocation established by the Council.

Recent allocation studies completed by the SEFSC and reviewed by the Socioeconomic Scientific and Statistical Committee (SESSC) have concluded that existing allocations between the commercial and recreational sectors of several reef fish resources, including red snapper, are not economically efficient. In a 2012 study evaluating the economic efficiency of the allocation of red snapper resources, Agar and Carter[9] compared estimated commercial and recreational marginal willingness to pay for red snapper and indicated that the relative magnitude of the estimates suggests that economic efficiency could potentially be improved by reallocating red snapper resources. The SESSC reviewed and accepted the methodology of the study. The SESSC further stated that although the study results indicated that the marginal value of a recreationally caught red snapper is likely higher than the marginal value of a commercially caught red snapper, given the data used, e.g., data collection time periods (recreational data collected from a 2003 survey; commercial data collected during the last 5 years of the red snapper IFQ program), it cannot specify the potential efficiency gains from possible quota shifts because it does not know how the marginal valuations would change with the switch. The SESSC also indicated that incentive-based approaches to reallocation would be more appropriate for increasing net benefits than mandated allocations. A study evaluating potential changes in net benefits expected to result from alternatives proposed in this amendment is provided in Appendix G.

[9] Agar and Carter presentation to the SESSC in October 2012 titled "Are the 2012 allocations of red snapper in the Gulf of Mexico economically efficient?"

CHAPTER 3. AFFECTED ENVIRONMENT

The action considered in this environmental impact statement (EIS) would affect commercial and recreational fishing for red snapper in federal and state waters of the Gulf of Mexico (Gulf). Descriptions of the physical, biological, economic, social, and administrative environments were completed in the EISs for Reef Fish Amendments 27/Shrimp Amendment 14 (GMFMC 2007), 30A (GMFMC 2008a), 30B (GMFMC 2008b), 32 (GMFMC 2011b), the Generic Essential Fish Habitat (EFH) Amendment (GMFMC 2004a), and the Generic Annual Catch Limits/Accountability Measures (ACL/AM) Amendment (GMFMC 2011a). Below, information on each of these environments is summarized or updated, as appropriate.

3.1 Description of the Red Snapper Component of the Reef Fish Fishery

A description of the fishery and affected environment relative to red snapper was last fully discussed in joint Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007). This section updates the previous description to include additional information since publication of that EIS.

General Features

Commercial harvest of red snapper from the Gulf began in the mid-1800s (Shipp 2001). In the 1930s, party boats built exclusively for recreational fishing began to appear (Chester 2001). Currently, the commercial sector operates under an individual fishing quota (IFQ) program. In 2011, 362 vessels participated in the IFQ program (NMFS 2012c). The recreational sector operates in the following three modes: charter boats, headboats, and private vessels. In 2012 private vessels accounted for 61.1% of recreational red snapper landings, followed by charter boats (24.8%) and headboats (14.1%). On a state-by-state basis, Florida accounted for the most landings (41.5%), followed by Alabama (28.1%), Louisiana (14.8%), Texas (12.0%), and Mississippi (3.7%) (Table 3.1.1).

Table 3.1.1. Recreational red snapper landings in 2012 by state and mode.

State	Landings (lbs whole weight)				% by State
	Charter	Headboat	Private	All Modes	
FL (west)	641,437	205,114	1,289,253	2,135,804	41.5%
AL	359,469	72,199	1,013,460	1,445,128	28.1%
MS	997	5,894	182,767	189,658	3.7%
LA	236,302	21,999	501,704	760,005	14.8%
TX	39,128	419,671	157,726	616,525	12.0%
Total	**1,277,333**	**724,077**	**3,144,911**	**5,147,120**	
% by Mode	**24.8%**	**14.1%**	**61.1%**		**100%**

Source: NMFS 2013a.

The red snapper stock has been found to be in decline or in an overfished condition since the first red snapper stock assessment in 1986 (Parrack and McClellan 1986). The first red snapper rebuilding plan was implemented in 1990 through Amendment 1 (GMFMC 1989). From 1990 through 2009, red snapper harvest was managed through the setting of an annual total allowable catch (TAC). This TAC was allocated with 51% going to the commercial sector and 49% to the recreational sector. Beginning in 2010, TAC was phased out in favor of an ACL as a result of revisions to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The red snapper rebuilding plan has not formally adopted the use of the term ACL. However, by allocating the acceptable biological catch (ABC) between the commercial and recreational sectors, and then setting quotas for each sector that do not exceed those allocations, the terminology and approaches used in the red snapper rebuilding plan are consistent with the use of ACLs. Such alternative terminology is allowed under the guidelines.

Amendment 1 also established a 1990 commercial red snapper quota of 3.1 million pounds (mp) whole weight (ww) (Table 3.1.2). There was no explicit recreational quota or allocation specified in Amendment 1, only a bag limit of 7 fish and a minimum size limit of 13 inches total length. Beginning in 1991, an explicit recreational allocation in pounds was based on 49% of the TAC was specified, and this allocation was specified through Council action until 1997 when the recreational allocation was changed to a quota (Table 3.1.2). Based on the 51:49 commercial to recreational sector allocation, the commercial quota implied a TAC of about 5.2 mp in 1990, followed by explicit TACs of 4.0 mp in 1991 and 1992, 6.0 mp in 1993 through 1995, and 9.12 mp from 1996 through 2006 (Table 3.1.2). The TAC was reduced to 6.5 mp in 2007 and 5.0 mp in 2008 and 2009 as the Gulf of Mexico Fishery Management Council (Council) shifted from a constant catch rebuilding plan to a constant fishing mortality rebuilding plan (GMFMC 2007). Under a constant fishing mortality rate rebuilding plan, the ABC is allowed to increase as the stock rebuilds, thus the ABCs for 2010, 2011, and 2012 were increased to 6.945, 7.530, and 8.080 mp, respectively[10].

In July 2013, the Council reviewed a new benchmark assessment (SEDAR 31 2013) which showed that the red snapper stock was rebuilding faster than projected, partly due to strong recruitment in some recent years. Initially in 2013, a scheduled increase in the ABC to 8.690 mp was cancelled due to an overharvest in 2012 by the recreational sector. After an analysis of the impacts of the overharvest on the red snapper rebuilding plan, the 2013 ABC was increased to 8.460 mp. However, once the new benchmark assessment was completed, the Scientific and Statistical Committee (SSC) increased the ABC for 2013 to 13.5 mp with the caveat that catch levels would have to be reduced in future years unless recruitment returned to average levels. After incorporating a buffer to reduce the possibility of having to later reduce the quota, the Council further increased the 2013 commercial and recreational quotas to a combined 11.0 mp (5.61 mp and 5.39 mp, respectively) (GMFMC 2013a). A 2014 update assessment was presented to the SSC in January 2015. The SSC reviewed the assessment and determined the ABC could be increased to 13 mp in 2015 with further increases over the next two years. However, the recreational red snapper landings in the original 2014 update assessment were only available through 2013, so the ABC projections for 2015 and beyond were made assuming that the 2014 landings would equal those in 2013. However, the 2014 recreational landings were

[10] Note the allocation for the commercial and recreational quotas shifted from the TAC to the ABC in 2010.

actually less than in 2013. Due to the landings being lower in 2014 than previously assumed, the SEFSC projections concluded that the 2015 ABC could be set higher than the level set by the SSC, but that there would then need to be subsequent annual reductions in order to adhere to the 2032 rebuilding schedule. The SSC to re-evaluated its ABC recommendations in light of the new information on 2014 landings and recommended an ABC for 2015-2017 provided in Table 1.1.1. The Council then approved a framework action to implement these quotas and the recreational annual catch target (ACT), which are listed in Table 1.1.1.

Table 3.1.2. Red snapper landings and overage/underage by sector, 1986-2013. Landings are in mp ww. Commercial quotas began in 1990. Recreational allocations began in 1991 and recreational quotas began in 1997. Summing the recreational allocation/quota and the commercial quota yields the total allowable catch (TAC) for the years 1991-2009 and the acceptable biological catch (ABC) for 2010-2013.

	Recreational			Commercial			Total		
Year	**Alloc-ation Quota**	**Actual landings**	**Difference**	**Quota**	**Actual landings**	**Difference**	**TAC/ ABC**	**Actual landings**	**Difference**
1986	na	3.491	na	na	3.700	na	na	6.470	na
1987	na	2.090	na	na	3.069	na	na	4.883	na
1988	na	3.139	na	na	3.960	na	na	6.528	na
1989	na	2.940	na	na	3.098	na	na	5.754	na
1990	na	1.625	na	3.1	2.650	-0.450	na	4.264	na
1991	1.96	2.917	+0.957	2.04	2.213	+0.173	4.0	5.130	+1.130
1992	1.96	4.618	+2.658	2.04	3.106	+1.066	4.0	7.724	+3.724
1993	2.94	7.161	+4.221	3.06	3.374	+0.314	6.0	10.535	+4.535
1994	2.94	6.076	+3.136	3.06	3.222	+0.162	6.0	9.298	+3.298
1995	2.94	5.464	+2.524	3.06	2.934	-0.126	6.0	8.398	+2.398
1996	4.47	5.339	+0.869	4.65	4.313	-0.337	9.12	9.652	+0.532
1997	4.47	6.804	+2.334	4.65	4.810	+0.160	9.12	11.614	+2.494
1998	4.47	4.854	+0.384	4.65	4.680	+0.030	9.12	9.534	+0.414
1999	4.47	4.972	+0.502	4.65	4.876	+0.226	9.12	9.848	+0.728
2000	4.47	4.750	+0.280	4.65	4.837	+0.187	9.12	9.587	+0.467
2001	4.47	5.252	+0.782	4.65	4.625	-0.025	9.12	9.877	+0.757
2002	4.47	6.535	+2.065	4.65	4.779	+0.129	9.12	11.314	+2.194
2003	4.47	6.105	+1.635	4.65	4.409	-0.241	9.12	10.514	+1.394
2004	4.47	6.460	+1.990	4.65	4.651	+0.001	9.12	11.111	+1.991
2005	4.47	4.676	+0.206	4.65	4.096	-0.554	9.12	8.772	-0.348
2006	4.47	4.131	-0.339	4.65	4.649	-0.001	9.12	8.780	-0.340
2007	3.185	5.809	+2.624	3.315	3.183	-0.132	6.5	8.962	+2.462
2008	2.45	4.056	+1.606	2.55	2.484	-0.066	5.0	6.517	+1.517
2009	2.45	5.597	+3.147	2.55	2.484	-0.066	5.0	8.058	+3.058
2010	3.403	2.651	-0.752	3.542	3.392	-0.150	6.945	6.013	-0.932
2011	3.866	6.734	+2.868	3.664	3.595	-0.069	7.53	10.296	+2.766
2012	3.959	7.524	+3.565	4.121	4.036	-0.085	8.08	11.524	+3.444
2013	5.390	9.659	+4.269	5.610	5.449	-0.161	11.00	15.108	+4.108

Sources: Recreational landings from the Southeast Fisheries Science Center including landings from the Marine Recreational Information Program, Texas Parks and Wildlife Department, and the Southeast Headboat Survey. Commercial landings from the Southeast Data Assessment and Review 31 Data Workshop Report (1990-2006), commercial quotas/catch allowances report from the National Marine Fisheries Service /Southeast Regional Office IFQ landings website (2007-2013): http://sero.nmfs.noaa.gov/sf/ifq/CommercialQuotasCatchAllowanceTable.pdf. Commercial quotas/landings in gutted weight were multiplied by 1.11 to convert to ww. Values highlighted in red are those where landings exceeded quotas.

Both the commercial and recreational sectors have had numerous allocation or quota overruns. Table 3.1.2 shows a comparison of quotas and actual harvests from 1990 through 2012. The recreational sector has had allocation/quota overruns in 14 out of 22 years in which an allocation or quota was specified, while the commercial sector has had quota overruns in 10 of 23 years. However, the commercial sector has not had overruns since 2005, including the years 2007 onward when the commercial harvest of red snapper has operated under an IFQ program.

Recreational Sector

Red snapper are an important component of the recreational sector's harvest of reef fish in the Gulf. Red snapper are caught from charter boats, headboats (or party boats), and private anglers fishing primarily from private or rental boats. Red snapper are primarily caught with hook-and-line gear in association with bottom structures. Recreational red snapper harvest allocations since 1991 have been set at 49% of the TAC, or 1.96 mp in 1991 and 1992, 2.94 mp for 1993 through 1995, and 4.47 mp in 1996. In 1997, a 4.47 mp recreational quota was created and it was maintained at this level through 2006. In 2007, the recreational quota was reduced to 3.185 mp. It was reduced again to 2.45 mp in 2008 and 2009. Since 2010, the recreational quota has been increased each year: 3.403 mp in 2010, 3.866 mp in 2011, 3.959 mp in 2012, and 5.390 mp in 2013 (Table 3.1.3).

Before 1984, there were no restrictions on the recreational harvest of red snapper. In November 1984, a 12-inch total length size limit was implemented, but with an allowance for five undersized fish per person. In 1990, the undersized allowance was eliminated, and the recreational sector was managed through bag and size limits with a year-round open season. In 1997, the recreational red snapper allocation was converted into a quota with accompanying quota closure should the sector exceed its quota. Recreational quota closures occurred in 1997, 1998, and 1999, becoming progressively shorter each year even though the quota remained a constant 4.47 mp.

A fixed recreational season of April 21 through October 31 (194 days) was established for 2000 through 2007. However, National Marine Fisheries Service (NMFS) returned to variable length seasons beginning in 2008. Under this management approach, due to a lag in the reporting of recreational catches, catch rates over the course of the season were projected in advance based on past trends and changes in the average size of a recreationally harvested red snapper. The recreational season opened each year on June 1 and closed on the date when the quota was projected to be reached. In 2008, the season length was reduced from 194 days to 65 days in conjunction with a reduction in quota to 2.45 mp. The season length then increased to 75 days in 2009. In 2010, the recreational red snapper season was originally projected to be 53 days. However, due to reduced effort and large emergency area closures resulting from the Deepwater Horizon MC252 oil spill, catches were below projections, and a one-time supplemental season of weekend only openings (Friday, Saturday, and Sunday) was established from October 1 through November 22. This added 24 fishing days to the 2010 season for a total of 77 days. In 2011, the season was reduced to 48 days despite an increase in the quota, due to an increase in the average size of a recreationally harvested fish. In 2012 the season was initially scheduled to be 40 days, but was extended to 46 days to compensate for the loss of fishing days due to storms (Table 3.1.3). For 2013, an increase in the ABC occurred too late to extend the June recreational

season, so the Council requested that NMFS reopen the recreational season on October 1 for whatever number of days would be needed to harvest the additional quota. NMFS estimated that the additional recreational quota would take 14 days to be caught, and therefore announced a supplemental season of October 1 through 14. In 2014, the season was 9 days starting on June 1. The season length used new MRIP information to estimate catch rates and was based on an ACT set 20% below the quota.

Table 3.1.3. Red snapper recreational landings vs. allocation/quota and days open, bag limit, and minimum size limits 1986-2013. Landings are in mp ww. Minimum size limits are in inches total length. Recreational allocations began in 1991, and became quotas in 1997.

Year	Allocation/ Quota	Actual landings	Difference	% over or under	Days open	Bag limit	Minimum size limit
1986	na	3.491	na		365	none	13
1987	na	2.090	na		365	none	13
1988	na	3.139	na		365	none	13
1989	na	2.940	na		365	none	13
1990	na	1.625	na		365	7	13
1991	1.96	2.917	+0.957	+49%	365	7	13
1992	1.96	4.618	+2.658	+136%	365	7	13
1993	2.94	7.161	+4.221	+144%	365	7	13
1994	2.94	6.076	+3.136	+107%	365	7	14
1995	2.94	5.464	+2.524	+86%	365	5	15
1996	4.47	5.339	+0.869	+19%	365	5	15
1997	4.47	6.804	+2.334	+52%	330	5	15
1998	4.47	4.854	+0.384	+9%	272	4	15
1999	4.47	4.972	+0.502	+11%	240	4	15
2000	4.47	4.750	+0.280	+6%	194	4	16
2001	4.47	5.252	+0.782	+17%	194	4	16
2002	4.47	6.535	+2.065	+46%	194	4	16
2003	4.47	6.105	+1.635	+37%	194	4	16
2004	4.47	6.460	+1.990	+45%	194	4	16
2005	4.47	4.676	+0.206	+5%	194	4	16
2006	4.47	4.131	-0.339	-8%	194	2	16
2007	3.185	5.809	+2.624	+82%	194	2	16
2008	2.45	4.056	+1.606	+66%	65	2	16
2009	2.45	5.597	+3.147	+128%	75	2	16
2010	3.403	2.651	-0.752	-22%	53 + 24 = 77	2	16
2011	3.866	6.734	+2.868	+74%	48	2	16
2012	3.959	7.524	+3.565	+90%	46	2	16
2013	5.390	9.659	+4.269	+79%	42	2	16

Sources: Southeast Fisheries Science Center including landings from the Marine Recreational Information Program, Texas Parks and Wildlife Department, and the Southeast Headboat Survey (May 2013). Values highlighted in red are those where landings exceeded quotas.

During the six years when the recreational harvest was an allocation, not a quota (1991 – 1996), actual recreational harvests in pounds of red snapper exceeded the allocation every year except 1996. During the period when the recreational harvest was managed as a quota (1997 – 2012), actual recreational harvest in pounds of red snapper exceeded the quota in 9 out of 16 years, including 5 of the last 6 years (Table 3.1.3). It should also be noted that overages have been quite substantial when they occur (often 30% or greater than the quota) while underages are generally minor (often 12% or less of the quota). Historical recreational landings estimates have recently been revised to reflect changes in methodology under the Marine Recreational Information Program (MRIP). Preliminary landings for 2014 indicate the recreational quota was not exceeded in this year.

For-hire vessels have operated under a limited access system with respect to the issuance of new for-hire permits for fishing reef fish or coastal migratory pelagics since 2003. A total of 3,340 reef fish and coastal migratory pelagic charter permits were issued under the moratorium, and they are associated with 1,779 vessels. Of these vessels, 1,561 have both reef fish and coastal migratory pelagics permits, 64 have only reef fish permits, and 154 have only coastal migratory pelagics permits.

Savolainen et al (2012) surveyed the charter and headboat fleets in the Gulf. They found that most charter boat trips occurred in the exclusive economic zone (68%) and targeted rig-reef species (64%; snappers and groupers). Pelagic (mackerel and cobia) trips accounted for 19% of trips. If examined by state, more trips targeted rig-reef species with the exception of Louisiana where rig-reef species and pelagic species had almost the same proportion of trips. In a similar survey conducted in 1998, Holland et al. (1999) found species targeted by Florida charter boat operators were king mackerel (41%), grouper (~37%), snapper (~34%), cobia (25%), and Spanish mackerel (20%). For the rest of the Gulf, Sutton et al. (1999) using the same survey reported that the majority of charter boats targeted snapper (91%), king mackerel (89%), cobia (76%), and tuna (55%).

For headboats, Savolainen et al (2012) reported that most head boats target offshore species and fish in federal waters (81% of trips), largely due to vessel size and consumer demand. On average, 84% of trips targeted rig-reef species, while only 10 % targeted inshore species and 6% pelagic species. Holland et al. (1999) reported approximately 40% of headboats did not target any particular species. The species targeted by the largest proportion of Gulf coast Florida headboats were snapper (60%), grouper (60%) and sharks (20%) with species receiving the largest percentage of effort red grouper (46%), gag 33%), black grouper (20%), and red snapper (7%). For the other Gulf States, Sutton et al. (1999) reported that the majority of headboats targeted snapper (100%), king mackerel (85%), shark (65%), tuna (55%), and amberjack (50%). The species receiving the largest percentage of total effort by headboats in the four-state area were snapper (70%), king mackerel (12%), amberjack (5%), and shark (5%).

Commercial Sector

In the Gulf, red snapper are primarily harvested commercially with hook-and-line and bandit gear, with bandit gear being more prevalent. Longline gear captures a small percentage of total landings (generally < 5%; SEDAR 31 2013). Current regulations prohibit longline gear for the

harvest of reef fish inside of 50 fathoms west of Cape San Blas. East of Cape San Blas, longline gear is prohibited for harvest of reef fish inside of 20 fathoms from September through May. From June through August, the longline boundary is shifted out to 35 fathoms to protect foraging sea turtles.

Between 1990 and 2006, the principal method of managing the commercial sector for red snapper was with quotas set at 51% of TAC and seasonal closures after each year's quota was filled. The result was a race for fish in which fishermen were compelled to fish as quickly as possible to maximize their catch of the overall quota before the season was closed. The fishing year was characterized by short periods of intense fishing activity with large quantities of red snapper landed during the open seasons. The result was short seasons and frequent quota overruns (Table 3.1.4). From 1993 through 2006, trip limits, limited access endorsements, split seasons and partial monthly season openings were implemented in an effort to slow the race for fish. At the beginning of the 1993 season, 131 boats qualified for red snapper endorsements on their reef fish permits that entitled them to land 2,000 lbs of red snapper per trip.

In 2007, an IFQ program was implemented for the commercial red snapper sector. Each vessel that qualified for the program was issued shares of the commercial quota. The amount of shares was based on historical participation. At the beginning of each year, each shareholder is issued allocation in pounds based on the amount of shares they have. Each shareholder is then allowed to harvest or their allocation to other fishermen, or purchase allocation from other fishermen. In addition, shares can be bought and sold. As a result of this program, the commercial red snapper season has not closed since 2007, but a commercial vessel cannot land red snapper unless it has sufficient allocation in its vessel account to cover the landing poundage. Thus, the IFQ program has ended quota overruns (Table 3.1.4). Recently, a 5-year review of the IFQ program was completed (GMFMC 2013b) and the Council is working to determine if changes are needed to the program.

Table 3.1.4. Commercial red snapper harvest vs. days open, by sector, 1986-2012.

Year	Quota	Actual landings	Days Open (days that open or close at noon are counted as half-days) ("+" = split season)
1986	na	3.700	365
1987	na	3.069	365
1988	na	3.960	365
1989	na	3.098	365
1990	3.1	2.650	365
1991	2.04	2.213	235
1992	2.04	3.106	52½ + 42 = 94½
1993	3.06	3.374	94
1994	3.06	3.222	77
1995	3.06	2.934	50 + 1½ = 51½
1996	4.65	4.313	64 + 22 = 86
1997	4.65	4.810	53 + 18 = 71
1998	4.65	4.680	39 + 28 = 67
1999	4.65	4.876	42 + 22 = 64
2000	4.65	4.837	34 + 25 = 59
2001	4.65	4.625	50 + 20 = 70
2002	4.65	4.779	57 + 24 = 81
2003	4.65	4.409	60 + 24 = 84
2004	4.65	4.651	63 + 32 = 95
2005	4.65	4.096	72 + 48 = 120
2006	4.65	4.649	72 + 43 = 115
2007	3.315	3.183	IFQ
2008	2.55	2.484	IFQ
2009	2.55	2.484	IFQ
2010	3.542	3.392	IFQ
2011	3.664	3.595	IFQ
2012	4.121	4.036	IFQ
2013	5.610	5.449	IFQ

Sources: Southeast Data Assessment and Review 31 Data Workshop Report (1990-2011 landings), commercial quotas/catch allowances report from National Marine Fisheries Service/Southeast Regional Office Individual Fishing Quota landings website. Commercial quotas/landings in gutted weight were multiplied by 1.11 to convert to ww. Values highlighted in red are those where landings exceeded quotas.

3.2 Description of the Physical Environment

The Gulf has a total area of approximately 600,000 square miles (1.5 million km^2), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel (Figure 3.2.1).

Oceanographic conditions are affected by the Loop Current, discharge of freshwater into the northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf. The Gulf includes both temperate and tropical waters (McEachran and Fechhelm 2005). Gulf water temperatures range from 54º F to 84º F (12º C to 29º C) depending on time of year and depth of water. Mean annual sea surface temperatures ranged from 73 º F through 83º F (23-28º C) including bays and bayous (Figure 3.2.1) between 1982 and 2009, according to satellite-derived measurements (NODC 2012: http://accession.nodc.noaa.gov/0072888). In general, mean sea surface temperature increases from north to south with large seasonal variations in shallow waters.

The physical environment for Gulf reef fish, including red snapper, is also detailed in the EIS for the Generic EFH Amendment, the Generic ACL/AM Amendment, and Reef Fish Amendment 40 (refer to GMFMC 2004a; GMFMC 2011a; GMFMC 2014a) and are incorporated by reference and further summarized below. In general, reef fish are widely distributed in the Gulf, occupying both pelagic and benthic habitats during their life cycle. A planktonic larval stage lives in the water column and feeds on zooplankton and phytoplankton (GMFMC 2004a). Juvenile and adult reef fish are typically demersal and usually associated with bottom topographies on the continental shelf (<100m) which have high relief, i.e., coral reefs, artificial reefs, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings. However, several species are found over sand and soft-bottom substrates. For example, juvenile red snapper are common on mud bottoms in the northern Gulf, particularly off Texas through Alabama. Also, some juvenile snapper (e.g. mutton, gray, red, dog, lane, and yellowtail snappers) and grouper (e.g. Goliath grouper, red, gag, and yellowfin groupers) have been documented in inshore seagrass beds, mangrove estuaries, lagoons, and larger bay systems.

In the Gulf, fish habitat for adult red snapper consists of submarine gullies and depressions; coral reefs, rock outcroppings, and gravel bottoms; oilrigs; and other artificial structures (GMFMC 2004a). Detailed information pertaining to the closures and preserves is provided in the February 2010 Regulatory Amendment (GMFMC 2010).

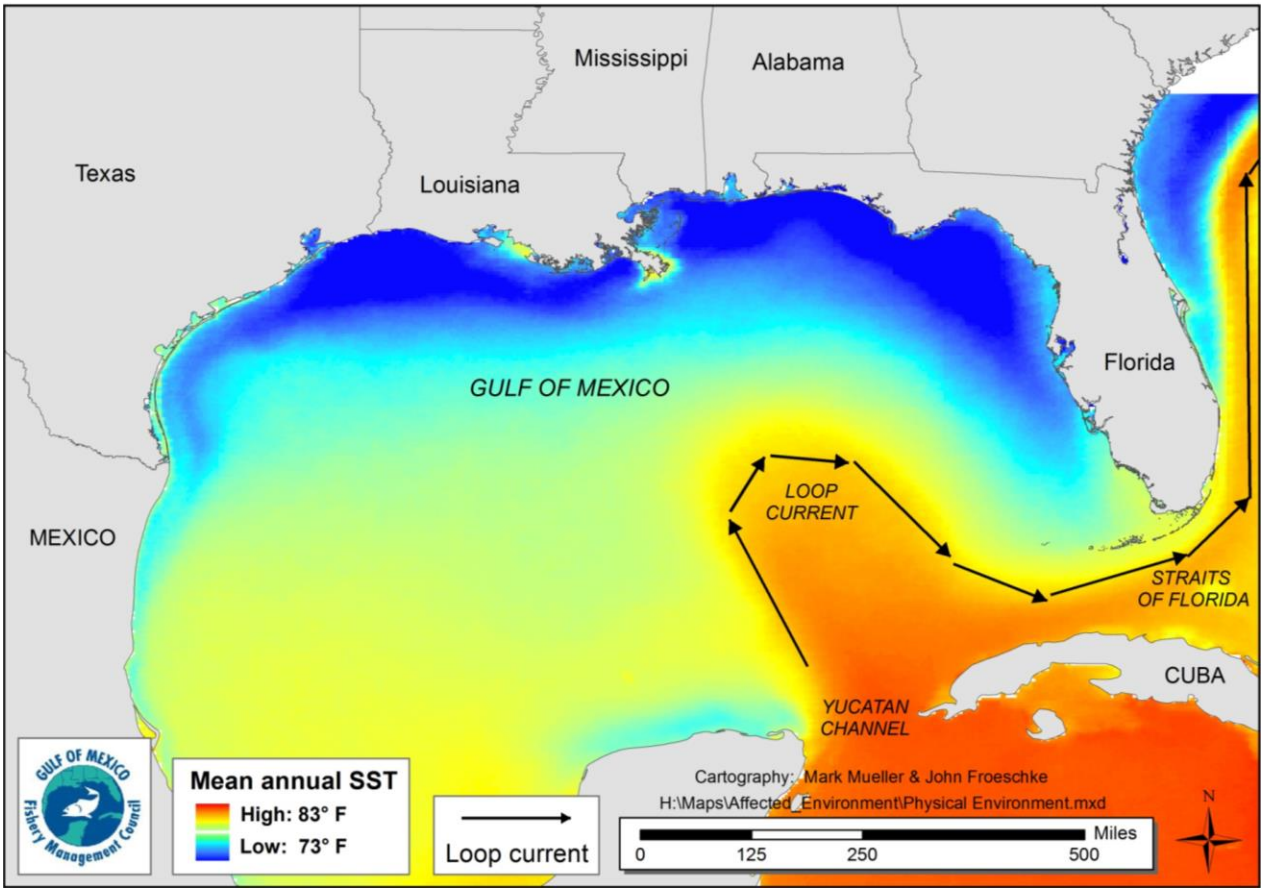

Figure 3.2.1. Physical environment of the Gulf including major feature names and mean annual sea surface temperature as derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (http://accession.nodc.noaa.gov/0072888)

3.3 Description of the Biological Environment

The biological environment of the Gulf, including the species addressed in this amendment, is described in detail in the final EISs for Generic EFH Amendment, the Generic ACL/AM Amendment, and Reef Fish Amendment 40 (refer to GMFMC 2004a; GMFMC 2011a; GMFMC 2014a) and is incorporated here by reference and further summarized below.

Red Snapper Life History and Biology

Red snapper demonstrate the typical reef fish life history pattern (Appendix C). Eggs and larvae are pelagic while juveniles are found associated with bottom features or over barren bottom. Spawning occurs over firm sand bottom with little relief away from reefs during the summer and fall. Most females are mature by age two and almost all are mature by age 5 (Woods et al. 2003). Red snapper have been aged up to 57 years (Wilson and Nieland 2001). In the late 1990s, most caught by the directed fishery were 2- to 4-years old (Wilson and Nieland 2001), but a recently completed stock assessment suggests that the age and size of red snapper in the directed fishery has increased in recent years (SEDAR 31 2013). A more complete description of red snapper life history can be found in the EIS for the Generic EFH Amendment (GMFMC 2004a).

Status of the Red Snapper Stock

Southeast Data Assessment and Review (SEDAR) 31 Benchmark Stock Assessment and 2014 update

Commercial harvest of red snapper from the Gulf began in the mid-1800s (Shipp 2001). In the 1930s, party boats built exclusively for recreational fishing began to appear (Chester 2001). The first stock assessment conducted by NMFS in 1986 suggested that the stock was in decline (Parrack and McLellan 1986) and since 1988 (Goodyear 1988) the stock biomass has been in an overfished condition.

A red snapper update assessment was conducted by the Southeast Fishery Science Center (SEFSC) in 2014 and presented to the Scientific and Statistical Committee (SSC) in January 2015 SSC[11]. This update assessment was based on the SEDAR 31 benchmark in 2012 and 2013 (SEDAR 31 2013). The primary assessment model selected for the SEDAR 31 Gulf red snapper stock evaluation assessment was Stock Synthesis (Methot 2010). Stock Synthesis is an integrated statistical catch-at-age model which is widely used for stock assessments in the United States and throughout the world. Commercial landings data included commercial handline and longline landings from the accumulated landings system from 1964 through 2011. For landings between 1880 and 1963, previously constructed historical landings were used. Total annual landings from the IFQ program for years 2007-2011 were used to reapportion 2007-2011

[11] The written report for the 2014 red snapper update assessment is in preparation. A version of the PowerPoint presentation describing the assessment was presented to the Council at its January 2015 meeting, and is available at the January 2015 briefing materials on the Council website (http://www.gulfcouncil.org) or by going directly to: http://www.gulfcouncil.org/council_meetings/Briefing%20Materials/BB-01-2015/B%20-%2014%20Red%20Snapper%202014%20Update%20Presentation.pdf

accumulated landings system data across strata. Recreational landings data included the Marine Recreational Information Program (MRIP) /Marine Recreational Fishery Statistics Survey (MRFSS) from 1981-2011, Southeast Headboat Survey for 1981-2011, and Texas Parks and Wildlife Department survey for 1983-2011. For the years 2004-2011, MRIP landings are available. For earlier years, MRFSS data were calibrated to MRIP estimates using a standardized approach for calculating average weight that accounts for species, region, year, state, mode, wave, and area.

Standardized indices of relative abundance from both fishery dependent and independent data sources were included in the model. The fishery dependent indices came from the commercial handline fleet, recreational headboats, and recreational private/for-hire sectors. Fishery independent indices came from the Southeast Area Monitoring and Assessment Program (SEAMAP) bottom trawl survey, SEAMAP reef fish video survey, NMFS bottom longline survey, and the SEAMAP plankton survey.

The benchmark stock assessment (SEDAR 31 2013) estimated dead discard rates separately for each sector. Note these same values were used in the recent 2014 update assessment and at this time are considered the best scientific information available. Red snapper discards in the Gulf were calculated from data collected by the self-reported commercial logbook data and the NMFS Gulf reef fish observer program. In addition to these directed fisheries discards, estimates of red snapper bycatch from the commercial shrimp fleet were also generated. Based on the commercial observer program, dead discard rate estimates were based on average depths, gear type (handline or longline), region (eastern or western Gulf), and season (open or closed). The assessment defined open season discard rates as those occurring on commercial fishing trips with IFQ allocation, while discards from trips without IFQ allocation were considered closed season dead discard rates. For the recreational sector, average depths at which discards occurred for each region (eastern or western Gulf) and season (open or closed) were calculated using self-reported discard data from the iSnapper program and reflected fishing depths, in general, reported by recreational anglers (SEDAR 31 2013). The stock assessment also estimated discard mortality rates before and after the implementation of the circle hook and venting tool requirement in 2008 for both sectors (GMFMC 2007). In August 2013, the Council decided to remove the venting tool requirement due to questions of its efficacy and also allow fishermen to use other methods to minimize barotrauma (e.g., fish descending devices; GMFMC 2013c). Fishermen may still continue to use venting tools.

For the commercial sector, estimates of discard mortality rates are higher compared to the recreational sector (Table 3.3.1) due to gear types and depth fished (GMFMC 2007; SEDAR 7 2005; SEDAR 31 2013). Since the implementation of the red snapper IFQ program, the overall rate of dead discards by the commercial sector has been reduced (GMFMC 2013b). Regardless of whether the recreational red snapper season is open or closed, the recreational discard mortality rates are lower than commercial rates because they fish in shallower depths and typically used hook and line gear (Table 3.3.1).

Table 3.3.1. Average depth fished and estimated discard mortality rates of red snapper by sector during the closed and open seasons in the eastern and western Gulf. The associated discard

mortality estimates for the recreational and commercial sector listed are based on use of circle hooks and the venting tool requirement.

Recreational sector		Commercial handline		Commercial bottom longline	
Open		Open		Open	
East	West	East	West	East	West
102 ft	105 ft	135 ft	159 ft	186 ft	312 ft
10%	10%	56%	60%	64%	81%
Closed		Closed		Closed	
East	West	East	West	East	West
99 ft	108 ft	126 ft	252 ft	198 ft	396 ft
10%	10%	55%	74%	66%	88%

Source: Tables 5.1 and 5.2 in SEDAR 31 2013

For the update assessment, the model and methods used were the same as SEDAR 31 except as follows.

1. Because recreational fishermen appear to be selecting for larger and older fish in recent years, a new selectivity timeblock (2011-2013) was added in the model for all recreational fleets to accommodate recent changes in fishing patterns.

2. The MRIP implemented new data collection methods beginning in March 2013. Due in part to the addition of dockside interviews in late afternoon and evening, which was beyond the time frame previously used, landings data collected under the new methodology appear to be higher than comparable landings in earlier years. An MRIP calibration workshop convened by NMFS in the summer of 2014 developed methods to rescale MRIP estimates from 2004-2012 to account for possible undersampling outside "peak hours". The "rescaled" MRIP (2004-2013) landings were then used in turn to rescale years prior to 2004 as in SEDAR 31. The east and west portions of the stock were modeled separately. The revised recreational landings are generally 10% to 20% higher than in SEDAR 31, and the revised discards show proportionately higher rates than in SEDAR 31.

The results of the 2014 update assessment indicated that overfishing was not occurring and the stock is continuing to rebuild, but it remains overfished. Based on the assessment, the SSC recommended overfishing limits (OFL) and acceptable biological catch (ABC) for the years 2015-2017. The OFL is the resulting yield when the fishing mortality (F) level is set to the rate that maximizes long-term yield (i.e., fishing at F_{MSY}, which results in attainment of the maximum sustainable yield (MSY)). The ABC was derived by determining a harvest rate ($F_{REBUILD\text{-}26\%\ SPR}$) that would rebuild the stock to a spawning potential ratio (SPR) of 26% of the unfished spawning potential ($B_{26\%SPR}$; a proxy for B_{MSY}) by 2032. To account for uncertainty in the true value of $F_{REBUILD\text{-}26\%\ SPR}$, a probability density function that reflects scientific uncertainty was developed. Based on Tier 1 of the Council's ABC control rule (GMFMC 2011a), a P* (acceptable probability of overfishing) of 0.427 was established to determine ABC for each year.

The original SSC recommendations for red snapper OFL and ABC were based on projections that assumed harvest in 2014 would be the same as in 2013. Provisional landings estimates for

2014 indicated that the recreational 2014 landings were less than in 2013. When the projections were re-run using the provisional 2014 landings, revised OFL and ABC yields were produced. The SSC reviewed the updated analysis at a webinar meeting in February 2015, and approved the revised 2015-2017 OFL and ABC yields[12]. In doing so, they noted three uncertainties in the projections including the final 2014 landings estimates would not be available until later in the year, there were questions about the accuracy of the average weight of recreationally caught fish from Texas (2014 average weights were lower than 2013 average weights), and 2014 discards were assumed to continue at 2013 rates. The original and revised OFLs and ABCs are listed in Table 3.3.2.

Table 3.3.2. SSC projections for red snapper OFL and ABC 2015-2017

Year	Original Projections		Projections with Provisional 2014 Landings	
	OFL	**ABC**	**OFL**	**ABC**
2015	14.73 mp	13.00 mp	16.13 mp	14.30 mp
2016	14.56 mp	13.21 mp	15.32 mp	13.96 mp
2017	14.40 mp	13.32 mp	14.80 mp	13.74 mp

Other analyses tiered off the 2014 update assessment

The SEFSC did additional analyses based on the 2014 update assessment that were requested by the Council and evaluated by the SSC. One analysis reviewed alternative F_{MSY} proxies for the Gulf red snapper stock including fishing mortality rates (Fs) based on several SPRs ($F_{40\%SPR}$ to $F_{20\%SPR}$)[13]. The SSC noted that "Over the long-term, fishing at target SPR levels less than 30% will result in declines in the eastern Gulf stock of red snapper, while in the west the SPR will increase at all SPR levels between 20% and 40%." They also noted that for at SPRs less than 26%, there were short-term increases in ABC; however target SPRs of 20% to 30% tended to converge to similar ABC levels over the long term. In the end, the SSC concluded that there was insufficient biological evidence for a better MSY proxy than what is currently used by the Council (i.e., the yield at 26% SPR).

Another SEFSC analysis reviewed by the SSC at the same meeting was a series of sensitivity runs to evaluate the effect of recalibrated recreational removals and recreational selectivity on OFL and ABC projections. The sensitivity runs consisted of using the update assessment base model with the following projections:

- Project the annual OFLs at $F_{26\%SPR}$ and the ABCs at $F_{REBUILD}$ from 2015-2032 using pre-MRIP recalibrated estimates.
- Project the annual OFLs at $F_{26\%SPR}$ and the ABCs at $F_{REBUILD}$ from 2015-2032 using pre-MRIP recalibrated estimates and no new recreational selectivity block for 2011-2013.

[12] Gulf of Mexico Fishery Management Council Standing and Special Scientific and Statistical Webinar Summary. February 19, 2015.
[13] Gulf of Mexico Fishery Management Council Standing and Special Scientific and Statistical Meeting Summary. May 20, 2015.

There is some evidence that recreational fishing selectivity in recent years has been shifting toward larger and older red snapper. Therefore, in these runs the model was allowed to re-estimate recreational selectivities in the most recent years (2011-2014). The runs suggested that there are two reasons why higher OFLs and ABCs were projected in the update assessment. The first was the use of the larger MRIP recalibrated estimates of recreational catch and the second was because of the recalibration of recreational selectivity in recent years.

The last analysis conducted by the SEFSC evaluated the effects of changing the commercial:recreational allocation on OFL and ABC yield streams. This analysis was also reviewed by the SSC at their May 20, 2015 meeting. The recreational allocation was adjusted from the current 49% up to 70% and included the recreational allocation of 51.5%, which was the preferred alternative (Alternative 8) at the time the analysis was conducted. The OFL and ABC yields for the directed fisheries presented to the SSC increased with increasing recreational allocation and achieve a Gulf-wide stock rebuilding to 26% SPR by 2032 (Tables 3.3.3 and 3.3.4). However, when looking at the projected regional stock SPRs, the western portion of the Gulf stock continued to increase while the SPR in the eastern Gulf declined (Figure 3.3.1). This decline for the eastern stock was exacerbated by increasing the recreational allocation. At a 70% recreational allocation, the eastern SPR is projected to decrease to 4% of the unfished condition by 2032.

Table 3.3.3. Red snapper overfishing level (OFL) yield streams and equilibrium yield for several allocations of recreational harvest and a target of 26% spawning potential ratio (SPR) by 2032.

OFL (Retained Yield Million of Pounds Whole Weight)						
YEAR	**Rec 49%**	**Rec 51.5%**	**Rec 55%**	**Rec 60%**	**Rec 65%**	**Rec 70%**
2015	16.10 mp	16.35	16.70	17.19	17.69	18.17
2016	15.31	15.50	15.72	16.06	16.39	16.71
2017	14.79	14.96	15.12	15.38	15.64	15.89
2018	14.25	14.40	14.54	14.77	15.00	15.23
2019	13.60	13.73	13.87	14.09	14.31	14.52
2020	13.17	13.29	13.43	13.65	13.86	14.07
Equil	12.91	13.00	13.11	13.27	13.42	13.57

Table 3.3.4. Red snapper acceptable biological catch (ABC) yield streams and equilibrium yield for several allocations of recreational harvest and a target of 26% spawning potential ratio (SPR) by 2032.

ABC (Retained Yield Million of Pounds Whole Weight)						
YEAR	**Rec 49%**	**Rec 51.5%**	**Rec 55%**	**Rec 60%**	**Rec 65%**	**Rec 70%**
2015	14.29	14.49	14.76	15.18	15.61	16.05
2016	13.96	14.13	14.31	14.62	14.93	15.24
2017	13.75	13.89	14.04	14.29	14.53	14.78
2018	13.39	13.52	13.65	13.87	14.09	14.32

2019	12.85	12.97	13.10	13.31	13.52	13.73
2020	12.49	12.60	12.73	12.94	13.15	13.35
Equil	12.40	12.48	12.59	12.73	12.87	12.98

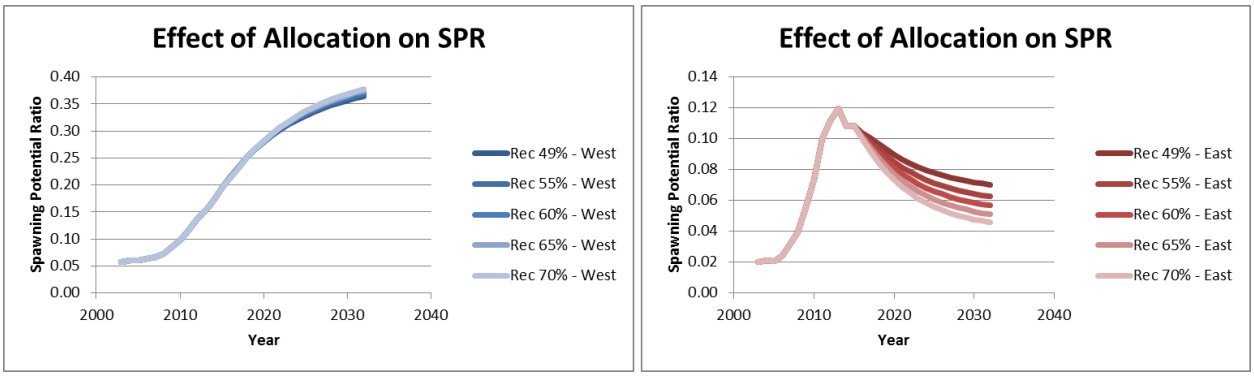

Figure 3.3.1. Regional trends in west and east red snapper spawning potential ratio (SPR) under various recreational allocations. Note that the graphs are drawn to different Y-axis scales.

The SEFSC attributed the differences in SPR changes between the eastern and western stocks to the distribution of the red snapper population and regional fishing effort. Increasing the recreational allocation disproportionately increases the fishing effort in the east (where most recreational fishing occurs) leading to an increased fraction of the population removed in the east as the recreational allocation increases thus leading to a depressed stock size. In addition, the selectivity patterns differ, with the recreational sector in the east selecting larger fish than the commercial sector.

General Information on Reef Fish Species

The National Ocean Service collaborated with NMFS and the Council to develop distributions of reef fish (and other species) in the Gulf (SEA 1998). The National Ocean Service obtained fishery-independent data sets for the Gulf, including SEAMAP, and state trawl surveys. Data from the Estuarine Living Marine Resources Program contain information on the relative abundance of specific species (highly abundant, abundant, common, rare, not found, and no data) for a series of estuaries, by five life stages (adult, spawning, egg, larvae, and juvenile) and month for five seasonal salinity zones (0-0.5, 0.5-5, 5-15, 15-25, and >25 parts per thousand). National Ocean Service staff analyzed these data to determine relative abundance of the mapped species by estuary, salinity zone, and month. For some species not in the Estuarine Living Marine Resources Program database, distribution was classified as only observed or not observed for adult, juvenile, and spawning stages.

In general, reef fish are widely distributed in the Gulf, occupying both pelagic and benthic habitats during their life cycle. Habitat types and life history stages are summarized in Appendix C and can be found in more detail in GMFMC (2004a). In general, both eggs and larval stages are planktonic. Larvae feed on zooplankton and phytoplankton. Exceptions to these generalizations include the gray triggerfish that lay their eggs in depressions in the sandy bottom, and gray snapper whose larvae are found around submerged aquatic vegetation. Juvenile and

adult reef fish are typically demersal, and are usually associated with bottom topographies on the continental shelf (<328 feet; <100 m) which have high relief, i.e., coral reefs, artificial reefs, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings. However, several species are found over sand and soft-bottom substrates. Juvenile red snapper are common on mud bottoms in the northern Gulf, particularly from Texas to Alabama. Also, some juvenile snappers (e.g. mutton, gray, red, dog, lane, and yellowtail snappers) and groupers (e.g. goliath grouper, red, gag, and yellowfin groupers) have been documented in inshore seagrass beds, mangrove estuaries, lagoons, and larger bay systems (GMFMC 1981). More detail on hard bottom substrate and coral can be found in the Fishery Management Plan (FMP) for Corals and Coral Reefs (GMFMC and SAFMC 1982).

Many of these species co-occur with red snapper and can be incidentally caught during red snapper fishing. In some cases, these fish may be discarded for regulatory reasons and thus are considered bycatch. Appendix D (bycatch practicability analysis) examines the effects of fishing on these species. In general, this analysis coupled with previous analyses has found that reducing bycatch provides biological benefits to managed species as well as benefits to the fishery through less waste, higher yields, and less forgone yield. However, in some cases, actions are approved that can increase bycatch through regulatory discards such as increased minimum sizes and closed seasons. In these cases, there is some biological benefit to the managed species that outweighs any increases in discards.

Status of Reef Fish Stocks

The Reef Fish FMP currently encompasses 31 species (Table 3.3.2). Eleven other species were removed from the FMP in 2012 through the Generic ACL/AM Amendment (GMFMC 2011a). Stock assessments and stock assessment reviews have been conducted for 13 species and can be found on the Council (www.gulfcouncil.org) and SEDAR (www.sefsc.noaa.gov/sedar) websites. The assessed species are:

- Red Snapper (SEDAR 7 2005; SEDAR 7 Update 2009; SEDAR 31 2013)
- Vermilion Snapper (Porch and Cass-Calay 2001; SEDAR 9 2006c; SEDAR 9 Update 2011a)
- Yellowtail Snapper (Muller et al. 2003; SEDAR 3 2003; O'Hop et al. 2012)
- Mutton Snapper (SEDAR 15A 2008)
- Gray Triggerfish (Valle et al. 2001; SEDAR 9 2006a; SEDAR 9 Update 2011b)
- Greater Amberjack (Turner et al. 2000; SEDAR 9 2006b; SEDAR 9 Update 2010; SEDAR 33 2014a)
- Hogfish (Ault et al. 2003; SEDAR 6 2004b; Cooper et al. 2013)
- Red Grouper (NMFS 2002; SEDAR 12 2007; SEDAR 12 Update 2009)
- Gag (Turner et al. 2001; SEDAR 10 2006; SEDAR 10 Update 2009; SEDAR 33 2014b)
- Black Grouper (SEDAR 19 2010)
- Yellowedge Grouper (Cass-Calay and Bahnick 2002; SEDAR 22 2011b)
- Tilefish (Golden) (SEDAR 22 2011a)
- Atlantic Goliath Grouper (Porch et al. 2003; SEDAR 6 2004a; SEDAR 23 2011)

The NMFS Office of Sustainable Fisheries updates its Status of U.S. Fisheries Report to Congress on a quarterly basis utilizing the most current stock assessment information. The most recent update can be found at: http://www.nmfs.noaa.gov/sfa/fisheries_eco/status_of_fisheries/. The status of both assessed and unassessed stocks as of the writing of this report is shown in Table 3.3.2.

Table 3.3.2. Species of the Reef Fish FMP grouped by family.

Common Name	Scientific Name	Stock Status
Family Balistidae – Triggerfishes		
Gray Triggerfish	*Balistes capriscus*	Overfished, overfishing
Family Carangidae – Jacks		
Greater Amberjack	*Seriola dumerili*	Overfished, overfishing
Lesser Amberjack	*Seriola fasciata*	Unknown
Almaco Jack	*Seriola rivoliana*	Unknown
Banded Rudderfish	*Seriola zonata*	Unknown
Family Labridae - Wrasses		
Hogfish	*Lachnolaimus maximus*	Unknown, overfishing
Family Malacanthidae - Tilefishes		
Tilefish (Golden)	*Lopholatilus chamaeleonticeps*	Not overfished, no overfishing
Blueline Tilefish	*Caulolatilus microps*	Unknown
Goldface Tilefish	*Caulolatilus chrysops*	Unknown
Family Serranidae - Groupers		
Gag	*Mycteroperca microlepis*	Not overfished, no overfishing
Red Grouper	*Epinephelus morio*	Not overfished, no overfishing
Scamp	*Mycteroperca phenax*	Unknown
Black Grouper	*Mycteroperca bonaci*	Not overfished, no overfishing
Yellowedge Grouper	**Hyporthodus flavolimbatus*	Not overfished, no overfishing
Snowy Grouper	**Hyporthodus niveatus*	Unknown
Speckled Hind	*Epinephelus drummondhayi*	Unknown
Yellowmouth Grouper	*Mycteroperca interstitialis*	Unknown
Yellowfin Grouper	*Mycteroperca venenosa*	Unknown
Warsaw Grouper	**Hyporthodus nigritus*	Unknown
**Atlantic Goliath Grouper	*Epinephelus itajara*	Unknown
Family Lutjanidae - Snappers		
Queen Snapper	*Etelis oculatus*	Unknown
Mutton Snapper	*Lutjanus analis*	Not overfished, no overfishing
Blackfin Snapper	*Lutjanus buccanella*	Unknown
Red Snapper	*Lutjanus campechanus*	Overfished, no overfishing
Cubera Snapper	*Lutjanus cyanopterus*	Unknown, no overfishing
Gray Snapper	*Lutjanus griseus*	Unknown, no overfishing
Lane Snapper	*Lutjanus synagris*	Unknown, no overfishing
Silk Snapper	*Lutjanus vivanus*	Unknown
Yellowtail Snapper	*Ocyurus chrysurus*	Not overfished, no overfishing
Vermilion Snapper	*Rhomboplites aurorubens*	Not overfished, no overfishing
Wenchman	*Pristipomoides aquilonaris*	Unknown

Notes: * In 2013 the genus for yellowedge grouper, snowy grouper, and warsaw grouper was changed by the American Fisheries Society from *Epinephelus* to *Hyporthodus* (American Fisheries Society 2013).

**Atlantic goliath grouper is a protected grouper and benchmarks do not reflect appropriate stock dynamics. In 2013 the common name was changed from goliath grouper to Atlantic goliath grouper by the American Fisheries Society to differentiate from the Pacific goliath grouper, a newly named species (American Fisheries Society 2013).

Protected Species

There are 40 species protected by federal law that may occur in the Gulf. Thirty-nine of these are under the jurisdiction of NMFS, while the West Indian manatee (*Trichechus manatus*) is managed by the U.S. Fish and Wildlife Service. Of the species under NMFS's jurisdiction, 27 are marine mammals that are protected under the Marine Mammal Protection Act (MMPA). The MMPA requires that each commercial fishery be classified by the number of marine mammals they seriously injure or kill. NMFS's List of Fisheries (LOF) classifies U.S. commercial fisheries into three categories based on the number of incidental mortality or serious injury they cause to marine mammals. More information about the LOF and the classification process can be found at: http://www.nmfs.noaa.gov/pr/interactions/lof/. Five of these marine mammal species are also listed as endangered under the Endangered Species Act (ESA) (i.e., sperm, sei, fin, blue, and humpback). In addition to those five marine mammals, five sea turtle species (Kemp's ridley, loggerhead, green, leatherback, and hawksbill), two fish species (Gulf sturgeon and smalltooth sawfish), and five coral species (elkhorn, staghorn, lobed star, mountainous star, and boulder star) are also protected under the ESA. Designated critical habitat for smalltooth sawfish, Gulf sturgeon, and the Northwest Atlantic Ocean distinct population segment of loggerhead sea turtles also occur within nearshore waters of the Gulf, though only loggerhead critical habitat occurs in federal waters.

NMFS has conducted specific analyses ("Section 7 consultations") to evaluate potential effects from the Gulf reef fish fishery on species and critical habitats protected under the ESA. On September 30, 2011, the Protected Resources Division released a biological opinion (Opinion), which concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback) or smalltooth sawfish (NMFS 2011a). The Opinion also concluded that other ESA-listed species are not likely to be adversely affected by the FMP. An incidental take statement was issued specifying the amount and extent of anticipated take, along with reasonable and prudent measures and associated terms and conditions deemed necessary and appropriate to minimize the impact of these takes. The Council addressed further measures to reduce take in the reef fish fishery's longline component in Amendment 31 (GMFMC 2009).

Subsequent to the completion of the biological opinion, NMFS published final rules listing 20 new coral species (September 10, 2014), and designating critical habitat for the Northwest Atlantic Ocean distinct population segment of loggerhead sea turtles (July 10, 2014). NMFS addressed these changes in a series of consultation memoranda. In a consultation memorandum dated October 7, 2014, NMFS assessed the continued operation of the Gulf reef fish fishery's potential impact on the newly-listed coral species occurring in the Gulf (3 species of *Orbicella* and *Mycetophyllia ferox*) and concluded the fishery is not likely to adversely affect any of the protected coral species. Similarly, in a consultation memorandum dated September 16, 2014, NMFS assessed the continued authorization of South Atlantic and Gulf of Mexico fisheries' potential impacts on loggerhead critical habitat and concluded the Gulf reef fish fishery is not likely to adversely affect the newly designated critical habitat. The effects of reef fish fishing on these species is further considered in a bycatch practicabilty analysis in Appendix D.

Marine Mammals
The gear used by the Gulf reef fish fishery is classified in the Marine Mammal Protection Act 2015 List of Fisheries as a Category III fishery (79 FR 77919). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to 1% of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. Dolphins are the only species documented as interacting with these fisheries. Bottlenose dolphins prey upon on the bait, catch, and/or released discards of fish from the reef fish fishery. They are also a common predator around reef fish vessels, feeding on the discards. Marine Mammal Stock Assessment Reports and additional information are available on the NMFS Office of Protected Species website: http://www.nmfs.noaa.gov/pr/sspecies/.

Turtles
Green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles are all highly migratory and travel widely throughout the Gulf. The following sections are a brief overview of the general life history characteristics of the sea turtles found in the Gulf region. Several volumes exist that cover the biology and ecology of these species more thoroughly (i.e., Lutz and Musick (eds.) 1997, Lutz et al. (eds.) 2003).

Green sea turtle hatchlings are thought to occupy pelagic areas of the open ocean and are often associated with *Sargassum* rafts (Carr 1987, Walker 1994). Pelagic stage green sea turtles are thought to be carnivorous. Stomach samples of these animals found ctenophores and pelagic snails (Frick 1976, Hughes 1974). At approximately 20 to 25 cm carapace length, juveniles migrate from pelagic habitats to benthic foraging areas (Bjorndal 1997). As juveniles move into benthic foraging areas a diet shift towards herbivory occurs. They consume primarily seagrasses and algae, but are also know to consume jellyfish, salps, and sponges (Bjorndal 1980, 1997; Paredes 1969; Mortimer 1981, 1982). The diving abilities of all sea turtles species vary by their life stages. The maximum diving range of green sea turtles is estimated at 110 m (360 ft) (Frick 1976), but they are most frequently making dives of less than 20 m (65 ft.) (Walker 1994). The time of these dives also varies by life stage. The maximum dive length is estimated at 66 minutes with most dives lasting from 9 to 23 minutes (Walker 1994).

The **hawksbill's** pelagic stage lasts from the time they leave the nesting beach as hatchlings until they are approximately 22-25 cm in straight carapace length (Meylan 1988, Meylan and Donnelly 1999). The pelagic stage is followed by residency in developmental habitats (foraging areas where juveniles reside and grow) in coastal waters. Little is known about the diet of pelagic stage hawksbills. Adult foraging typically occurs over coral reefs, although other hard-bottom communities and mangrove-fringed areas are occupied occasionally. Hawksbills show fidelity to their foraging areas over several years (van Dam and Diéz 1998). The hawksbill's diet is highly specialized and consists primarily of sponges (Meylan 1988). Gravid females have been noted ingesting coralline substrate (Meylan 1984) and calcareous algae (Anderes Alvarez and Uchida 1994), which are believed to be possible sources of calcium to aid in eggshell production. The maximum diving depths of these animals are not known, but the maximum

length of dives is estimated at 73.5 minutes. More routinely, dives last about 56 minutes (Hughes 1974).

Kemp's ridley hatchlings are also pelagic during the early stages of life and feed in surface waters (Carr 1987, Ogren 1989). Once the juveniles reach approximately 20 cm carapace length they move to relatively shallow (less than 50m) benthic foraging habitat over unconsolidated substrates (Márquez-M. 1994). They have also been observed transiting long distances between foraging habitats (Ogren 1989). Kemp's ridleys feeding in these nearshore areas primarily prey on crabs, though they are also known to ingest mollusks, fish, marine vegetation, and shrimp (Shaver 1991). The fish and shrimp Kemp's ridleys ingest are not thought to be a primary prey item but instead may be scavenged opportunistically from bycatch discards or from discarded bait (Shaver 1991). Given their predilection for shallower water, Kemp's ridleys most routinely make dives of 50 m or less (Soma 1985, Byles 1988). Their maximum diving range is unknown. Depending on the life stage a Kemp's ridleys may be able to stay submerged anywhere from 167 minutes to 300 minutes, though dives of 12.7 minutes to 16.7 minutes are much more common (Soma 1985, Mendonca and Pritchard 1986, Byles 1988). Kemp's ridleys may also spend as much as 96% of their time underwater (Soma 1985, Byles 1988).

Leatherbacks are the most pelagic of all ESA-listed sea turtles and spend most of their time in the open ocean. Although they will enter coastal waters and are seen over the continental shelf on a seasonal basis to feed in areas where jellyfish are concentrated. Leatherbacks feed primarily on cnidarians (medusae, siphonophores) and tunicates. Unlike other sea turtles, leatherbacks' diets do not shift during their life cycles. Because leatherbacks' ability to capture and eat jellyfish is not constrained by size or age, they continue to feed on these species regardless of life stage (Bjorndal 1997). Leatherbacks are the deepest diving of all sea turtles. It is estimated that these species can dive in excess of 1000 m (Eckert et al. 1989) but more frequently dive to depths of 50 m to 84 m (Eckert et al. 1986). Dive times range from a maximum of 37 minutes to more routines dives of 4 to 14.5 minutes (Standora et al. 1984, Eckert et al. 1986, Eckert et al. 1989, Keinath and Musick 1993). Leatherbacks may spend 74% to 91% of their time submerged (Standora et al. 1984).

Loggerhead hatchlings forage in the open ocean and are often associated with *Sargassum* rafts (Hughes 1974, Carr 1987, Walker 1994, Bolten and Balazs 1995). The pelagic stage of these sea turtles are known to eat a wide range of things including salps, jellyfish, amphipods, crabs, syngnathid fish, squid, and pelagic snails (Brongersma 1972). Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length they begin to live in coastal inshore and nearshore waters of the continental shelf throughout the U.S. Atlantic (Witzell 2002). Here they forage over hard- and soft-bottom habitats (Carr 1986). Benthic foraging loggerheads eat a variety of invertebrates with crabs and mollusks being an important prey source (Burke et al. 1993). Estimates of the maximum diving depths of loggerheads range from 211 m to 233 m (692-764ft.) (Thayer et al. 1984, Limpus and Nichols 1988). The lengths of loggerhead dives are frequently between 17 and 30 minutes (Thayer et al. 1984, Limpus and Nichols 1988, Limpus and Nichols 1994, Lanyon et al. 1989) and they may spend anywhere from 80 to 94% of their time submerged (Limpus and Nichols 1994, Lanyon et al. 1989).

All five species of sea turtles are adversely affected by the Gulf reef fish fishery. Incidental captures are relatively infrequent, but occur in all commercial and recreational hook-and-line and longline components of the reef fish fishery. Captured sea turtles can be released alive or can be found dead upon retrieval of the gear as a result of forced submergence. Sea turtles released alive may later succumb to injuries sustained at the time of capture or from exacerbated trauma from fishing hooks or lines that were ingested, entangled, or otherwise still attached when they were released. Sea turtle release gear and handling protocols are required in the commercial and for-hire reef fish fisheries to minimize post-release mortality.

Fish

Historically the **smalltooth sawfish** in the U.S. ranged from New York to the Mexico border. Their current range is poorly understood but believed to have contracted from these historical areas. In the South Atlantic region, they are most commonly found in Florida, primarily off the Florida Keys (Simpfendorfer and Wiley 2004). Only two smalltooth sawfish have been recorded north of Florida since 1963 (the first was captured off North Carolina in 1963 and the other off Georgia in 2002 (National Smalltooth Sawfish Database, Florida Museum of Natural History)). Historical accounts and recent encounter data suggest that immature individuals are most common in shallow coastal waters less than 25 meters (Bigelow and Schroeder 1953, Adams and Wilson 1995), while mature animals occur in waters in excess of 100 meters (Simpfendorfer pers. comm. 2006). Smalltooth sawfish feed primarily on fish. Mullet, jacks, and ladyfish are believed to be their primary food resources (Simpfendorfer 2001). Smalltooth sawfish also prey on crustaceans (mostly shrimp and crabs) by disturbing bottom sediment with their saw (Norman and Fraser 1938, Bigelow and Schroeder 1953).

Smalltooth sawfish are also affected by the Gulf reef fish fishery, but to a much lesser extent. Smalltooth sawfish primarily occur in the Gulf off peninsular Florida. Incidental captures in the commercial and recreational hook-and-line components of the reef fish fishery are rare events, with only eight smalltooth sawfish estimated to be incidentally caught annually, and none are expected to result in mortality (NMFS 2005). Fishermen in this fishery are required to follow smalltooth sawfish safe handling guidelines. The long, toothed rostrum of the smalltooth sawfish causes this species to be particularly vulnerable to entanglement in fishing gear.

Northern Gulf of Mexico Hypoxic Zone

Every summer in the northern Gulf, a large hypoxic zone forms. It is the result of allochthonous materials and runoff from agricultural lands by rivers to the Gulf increasing nutrient inputs from the Mississippi River and a seasonal layering of waters in the Gulf (see http://www.gulfhypoxia.net/). The layering of the water is temperature and salinity dependent and prevents the mixing of higher oxygen content surface water with oxygen-poor bottom water. For 2014, the extent of the hypoxic area was estimated to be 5,052 square miles and is similar the running average for over the past five years of 5,543 square miles Gulf (see http://www.gulfhypoxia.net/).

The hypoxic conditions in the northern Gulf directly impact less mobile benthic macroinvertebrates (e.g., polychaetes;) by influencing density, species richness, and community composition (Baustian and Rabalais 2009). However, more mobile macroinvertebrates and

demersal fishes (e.g., red snapper) are able to detect lower dissolved oxygen levels and move away from hypoxic conditions. Therefore, these organisms are indirectly effect by limiting prey availability and constraining available habitat (Baustian and Rabalais 2009, Craig 2012). For red snapper, Courtney et al. (2013) have conjectured that the hypoxic zone could have an indirect positive effect on red snapper populations in the western Gulf. They theorize that increased nutrient loading may be working in 'synergy' with abundant red snapper artificial habitats (oil platforms). Nutrient loading likely increases forage species biomass and productivity providing ample prey for red snapper residing on the oil rigs, thus increasing red snapper productivity.

Climate change

Kennedy et al. (2002) and Osgood (2008) have suggested global climate change could affect temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; change precipitation patterns and cause a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influence the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs. NOAA's Climate Change Web Portal (http://www.esrl.noaa.gov/psd/ipcc/ocn/) indicates the average sea surface temperature in the Gulf will increase by 1.2-1.4ºC for 2006-2055 compared to the average over the years 1956-2005. For reef fishes, Burton (2008) speculated climate change could cause shifts in spawning seasons, changes in migration patterns, and changes to basic life history parameters such as growth rates. Although there has been little change in latitudinal distribution of red snapper from 1985-2013, the OceanAdapt model (http://oceanadapt.rutgers.edu/regional_data/) shows a distributional trend towards deeper water later in the model's1985-2013 time series. This could be a response by red snapper to environmental factors such as increases in temperature.

The distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Hollowed et al. (2013) provided a review of projected effects of climate change on the marine fisheries and dependent communities. Integrating the potential effects of climate change into the fisheries assessment is currently difficult due to the time scale differences (Hollowed et al. 2013). The fisheries stock assessments rarely project through a time span that would include detectable climate change effects.

Deepwater Horizon MC252 Oil Spill

On April 20, 2010 an explosion occurred on the Deepwater Horizon MC252 oil rig approximately 36 nautical miles (41 statute miles) off the Louisiana coast. Two days later the rig sank. An uncontrolled oil leak from the damaged well continued for 87 days until the well was successfully capped by British Petroleum on July 15, 2010. The Deepwater Horizon MC252 oil spill affected at least one-third of the Gulf area from western Louisiana east to the Florida Panhandle and south to the Campeche Bank in Mexico (Figure 3.3.1).

As reported by the National Oceanic and Atmospheric Administration Office of Response and Restoration (NOAA 2010), the oil from the Deepwater Horizon MC252 spill is relatively high in

alkanes, which can readily be used by microorganisms as a food source. As a result, the oil from this spill is likely to biodegrade more readily than crude oil in general. The Deepwater Horizon MC252 oil is also relatively much lower in polyaromatic hydrocarbons. Polyaromatic hydrocarbons are highly toxic chemicals that tend to persist in the environment for long periods of time, especially if the spilled oil penetrates into the substrate on beaches or shorelines. Like all crude oils, MC252 oil contains volatile organic compounds (VOCs) such as benzene, toluene, and xylene. Some VOCs are acutely toxic but because they evaporate readily, they are generally a concern only when oil is fresh.[14]

In addition to the crude oil, over a million gallons of the dispersant, Corexit 9500A®, was applied to the ocean surface and an additional hundreds of thousands of gallons of dispersant was pumped to the mile-deep well head (National Commission 2010). No large-scale applications of dispersants in deep water had been conducted until the Deepwater Horizon MC252 oil spill. Thus, no data exist on the environmental fate of dispersants in deep water. However, a study found that, while Corexit 9500A® and oil are similar in their toxicity, when Corexit 9500A® and oil were mixed in lab tests, toxicity to microscopic rotifers increased up to 52-fold (Rico-Martínez et al. 2013). This suggests that the toxicity of the oil and dispersant combined may be greater than anticipated.

Oil could exacerbate development of the hypoxic "dead" zone in the Gulf as could higher than normal input of water from the Mississippi River drainage. For example, oil on the surface of the water could restrict the normal process of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column. In addition, microbes in the water that break down oil and dispersant also consume oxygen; this could lead to further oxygen depletion.

Changes have occurred in the amount and distribution of fishing effort in the Gulf in response to the oil spill. This has made the analysis of the number of days needed for the recreational sector to fill its quota more complex and uncertain, and will make the requirement to allow the recreational sector to harvest its quota of red snapper while not exceeding the quota particularly challenging. Nevertheless, substantial portions of the red snapper population are found in the northwestern and western Gulf (western Louisiana and Texas) and an increasing population of red snapper is developing off the west Florida continental shelf. Thus, spawning by this segment of the stock may not be impacted, which would mitigate the overall impact of a failed spawn by that portion of the stock located in oil-affected areas. An increase in lesions were found in red snapper in the area affected by the oil, but Murowski et al. (2014) found that the incidence of lesions had declined between 2011 and 2012. The 2013 stock assessment for red snapper (SEDAR 31, 2013) showed a steep decline in the 2010 recruitment; however, the recruitment increased in 2011 and 2012.

As a result of the Deepwater Horizon MC252 spill, a consultation pursuant to ESA Section 7(a)(2) was reinitiated. As discussed above, on September 30, 2011, the Protected Resources Division released a biological opinion, which after analyzing best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC252 oil release event in the northern Gulf), effects of the proposed action, and

[14] Source: http://sero.nmfs.noaa.gov/sf/deepwater_horizon/OilCharacteristics.pdf

cumulative effects, concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011a).

For additional information on the Deepwater Horizon MC252 oil spill and associated closures, see:
http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm.

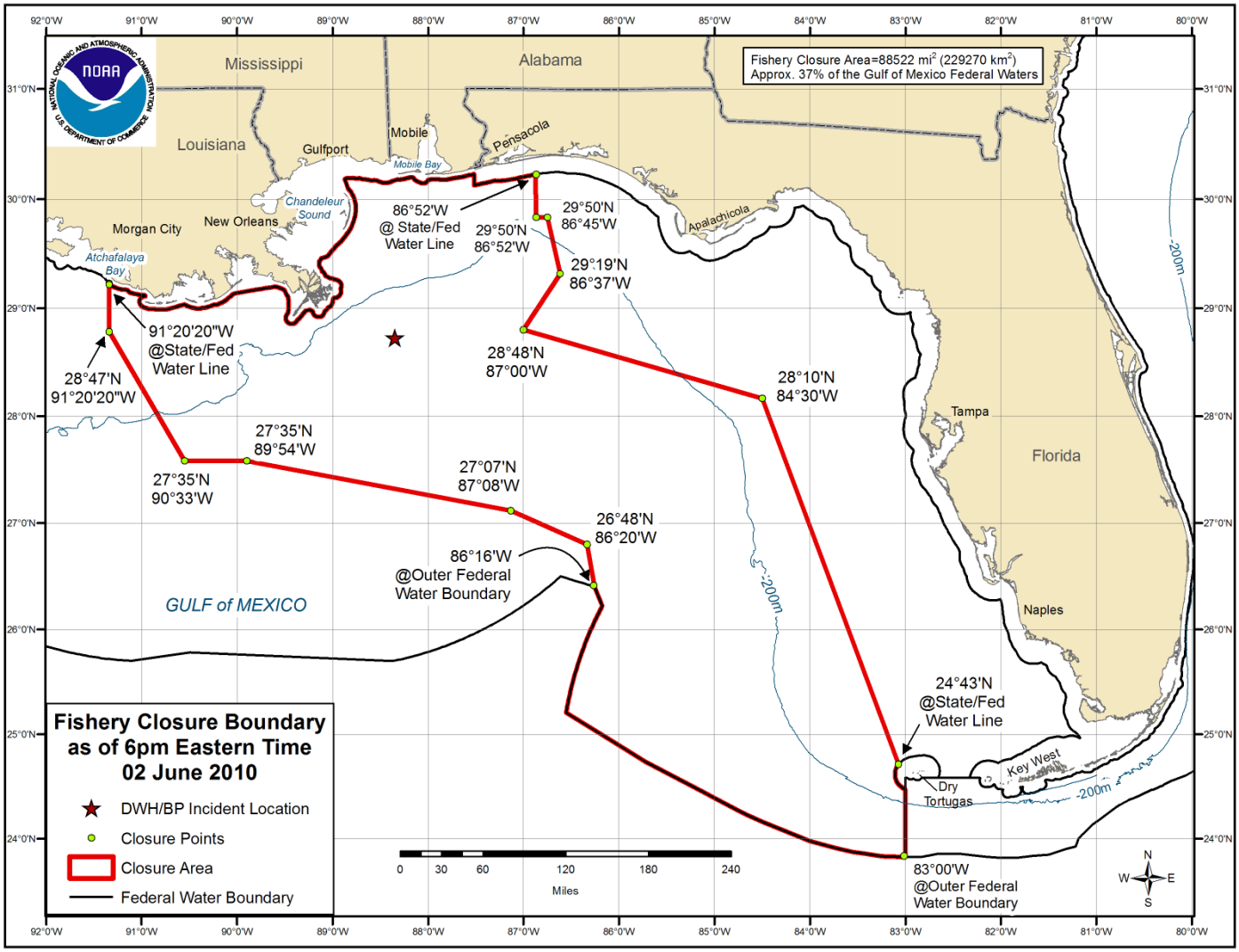

Figure 3.3.1. Fishery closure at the height of the Deepwater Horizon MC252 oil spill.

3.4 Description of the Social Environment

This section provides the conceptual and historical background for the proposed action which will be evaluated in Chapter 4.

Allocation is a social issue of assigning access to a scarce resource. Allocating between sectors is difficult to determine because the "characteristics, motivations, and output measures for participants differ dramatically" (Gislason 2006). Reallocation is inherently controversial when the result will benefit some and be detrimental to others. When considering allocations of fishing privileges, the Magnuson-Stevens Act requires fishery managers to examine social and economic factors as laid out in the National Standards. These include National Standard 4 which states if it becomes necessary to allocate fishing privileges among fishermen, the allocation will be fair and equitable, will promote conservation, and be carried out such that no particular entity receives an excessive share; National Standard 5 which states conservation and management measures will consider efficiency in the utilization of fishery resources except that no such measure will have economic allocation as its sole purpose; and National Standard 8 which states that conservation and management measures shall take into account the importance of fishery resources to fishing communities.

NMFS' technical memorandum on the principles and practice of allocation (Plummer et al. 2012) identifies two main criteria for the national standard mandates. Each criterion is based on a conceptual approach from distinct social sciences: economic efficiency and social equity. While a quantitative framework exists for analyzing economic efficiency, there is no such quantitiative framework for evaluating fairness and equity (Plummer et al. 2012).

Plummer et al.'s (2012) review of approaches to evaluate fairness focuses on critiques of the application of efficiency analyses to policy. Specifically, efficiency is critiqued for the decision to ignore issues of equity by reducing such social concerns to assumptions of "other things being equal" (Dietz and Atkinson 2010, Copes 1997, Bromley 1977), when in fact, they are not. Assuming "other things being equal," as used in efficiency analyses, may omit consideration of interdependencies that may be important for their distributional effects (Copes 1997:65). That other things are *not* equal, precisely reflects those components of the human environment that are at the center of equity considerations. Further, from the social perspective, willingness-to-pay studies measure perceptions and ideology of respondents more than actual behavior (Hausman 2012), overestimating any potential net benefits.

Although efficiency and fairness are often presented as a trade-off in environmental policy, research has shown that the public does not support prioritizing efficiency at the expense of equity (Dietz and Atkinson 2010:440), and that allocation fairness in the distribution of fishing rights is just as important as efficiency for making policy decisions (Bromley 1977). Ultimately, it is not possible to determine the expected net economic outcome resulting from the proposed sector reallocations, because inferences about economic efficiency are erroneous when each sector's quota is not efficiently allocated within the sector (Section 4.1.4

According to a review of all allocation decisions made by regional fishery management councils around the country (Plummer et al. 2012), nearly all allocation decisions have been based on

historical or current landings ratios. Following initial establishment of a sector allocation, seven stocks were identified as having undergone a revision to the original allocation; five of these examples are in the Gulf. One, vermilion snapper, had its sector allocation removed entirely. Of the remaining four Gulf examples, two stocks had their allocations shifted in favor of the recreational sector: greater amberjack (Amendment 30A, GMFMC 2008a) and red grouper (Amendment 30B, GMFMC 2008b). However, in both cases, an interim allocation was adopted and the selection of a new allocation was postponed until after the Council developed an allocation policy.

For greater amberjack, the action addressing sector allocation was moved to the considered but rejected section of the amendment; no reallocation was formally adopted. An interim allocation was agreed upon and the Council selected other management measures to reduce fishing effort by both sectors. For red grouper, the initial allocation decision in Amendment 1 (GMFMC 1989) set an aggregate grouper sector allocation, but did not establish allocations for individual grouper species. In 2004, a commercial red grouper quota was created, but the amendment specifically stated that no allocation decision was being made; the commercial quota represented 81% of the total allowable catch (GMFMC 2004b). As with greater amberjack, in 2008, the Council agreed upon an interim sector allocation and delayed further action until the Council could develop an allocation policy and consider the issue further. Thus, the two actions affected the distribution of access to the resource while postponing the formal establishment of a new sector allocation.

The other two Gulf examples concern species for which management is shared between the Gulf and South Atlantic Councils: king and Spanish mackerel. Since it was first established in 1987, the allocation for the Atlantic stock of Spanish mackerel has been changed twice, once toward the recreational sector and once toward the commercial sector. Initially established at 76% commercial and 24% recreational, the allocation was changed in 1989 to 50%:50%, due to a determination that the allocation was based on a time period of overfishing and low recreational participation. In 1998, the commercial allocation was increased because the recreational sector was not harvesting its quota. The 2% change in the king mackerel allocation towards the commercial sector was an adjustment to account for the sale of recreational catches that counted against the commercial quota. The allocations of both these species are scheduled to be reviewed in Coastal Migratory Pelagics Amendment 24, currently under development.

Finally, the remaining two cases come from the Pacific Fishery Management Council's management of salmon, Amendments 7 (PFMC 1986) and 9 (PFMC 1988). In contrast to nearly all allocation decisions that have been based on landings ratios, the rationale for these two cases was to provide more stability to the recreational sector. For both stocks, the recreational component is a directed fishery while the commercial component is provided for bycatch. In both examples, the reallocation was based on the recommendations from a working group of commercial and recreational fishermen and is an example of negotiation-based allocation. Also in this case, the sector allocations shift depending on the size of the quota, similar in design to Alternatives 5 and 6 in this amendment.

Context of red snapper management in the Gulf

In the Gulf, the commercial and recreational sectors are managed differently and separately. The existing allocation for red snapper was implemented in 1990 alongside the establishment of a total allowable catch, and corresponding management measures intended to reduce landings by 20% for each sector (GMFMC 1989). Thus, at the time the allocation was established, there was already great demand for red snapper by both sectors. Since that time, the number of both recreational anglers and seafood consumers has increased, along with the volume of tourists and participation of other stakeholder groups in fishery management. The issue of reallocating red snapper is driven by competing visions of who should have access privileges to the resource: recreational, commercial, and/or others.

A minimum size limit of 13" was adopted for both sectors, alongside a recreational bag limit of 7 fish per angler per day, and a commercial quota of 3.1 mp. Since then, both sectors have been subject to additional measures to reduce harvests and effort (Figure 3.4.1) which have been insufficient to restrict harvests before reaching the quota for either sector (Figure 3.4.2).

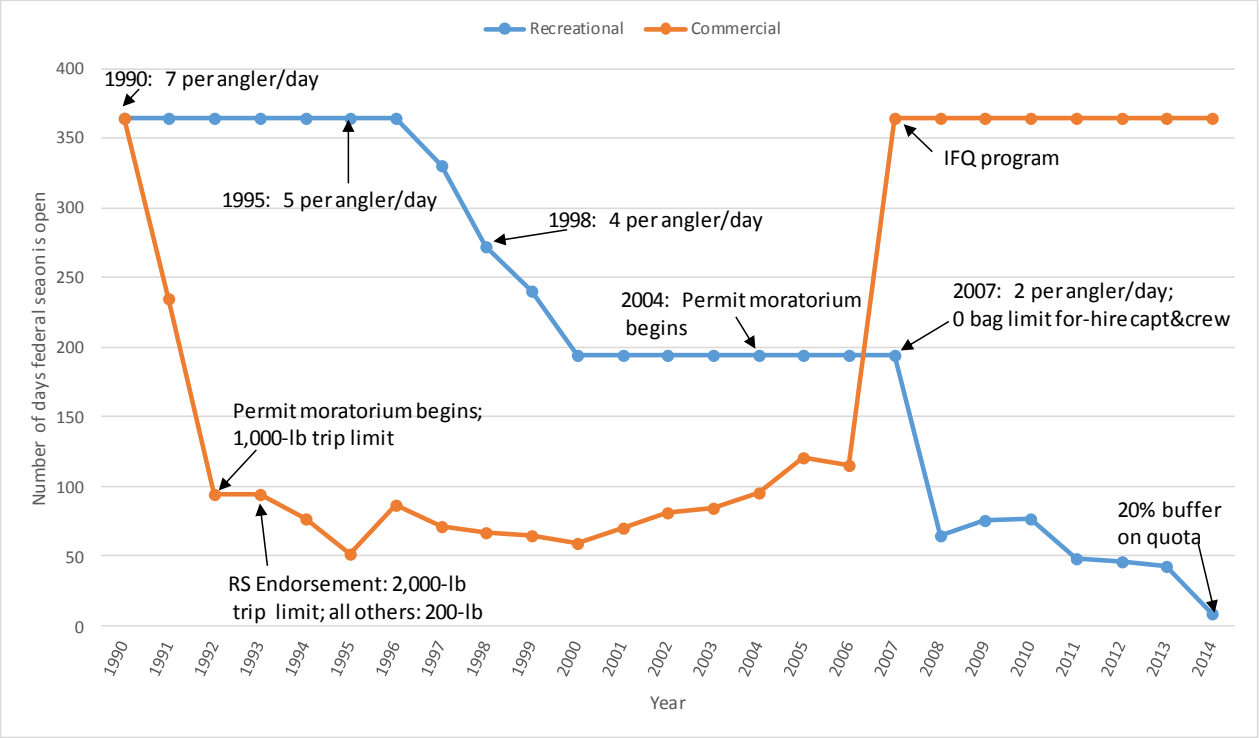

Figure 3.4.1. Length of fishing season in federal waters for commercial and recreational sectors (1990-2014), with changes in bag limits, trip limits, and implementation dates of limited access regulations. The timeline does not include minimum size limits or additional requirements such as use of a vessel monitoring system.

For the **commercial sector**, the year the allocation was established (1990) was the last year commercial fishing was open year round until implementation of the IFQ program in 2007 (Figure 3.4.1). Entry to the commercial sector was capped in 1992, when the commercial reef fish permit moratorium began. No additional commercial permits have been available since that

time, effectively capping sector participation. The following year, the system of red snapper endorsements for commercial permit holders was adopted. A red snapper endorsement allowed the holder a 2,000-lb trip limit, while all other commercial permit holders were allowed a 200-lb trip limit.

Despite the adoption of endorsements and trip limits to constrain harvests, from the early 1990's until implementation of the IFQ program, the commercial fishing seasons were best described as "derbies," where vessels raced to fish before each harvest closure. During this time, the commercial harvest was usually open only 10 days at a time. The IFQ program was implemented in 2007 to address two identified problems in commercial red snapper fishing: the derby fishing conditions and "overcapacity" in the commercial sector.

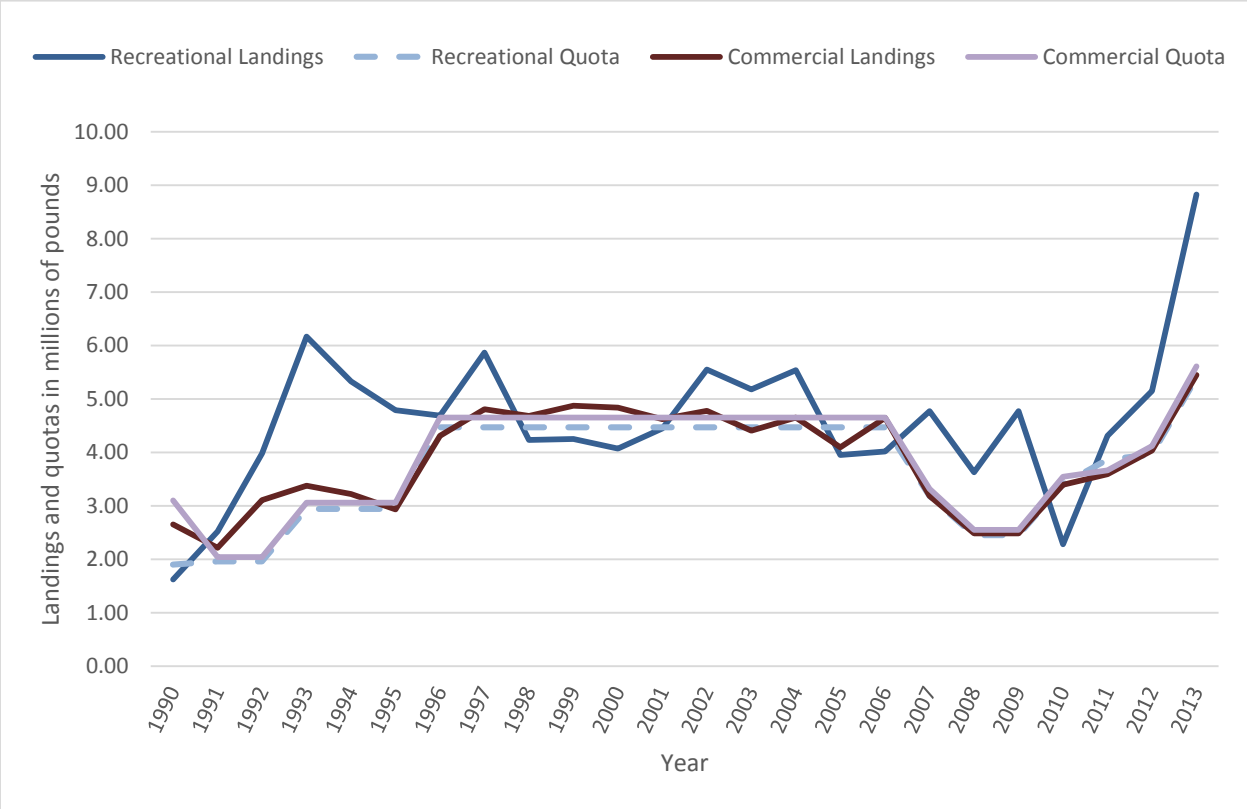

Figure 3.4.2. Recreational and commercial landings (solid lines) and quotas (dotted lines).

The IFQ program fundamentally restructured commercial fishing for red snapper. The opportunity for any permitted commercial vessel to harvest a trip limit of red snapper during a short open season was replaced by a system in which a reef-fish permit holder must obtain allocation prior to landing red snapper. Thus, the system of attempting to constrain commercial harvest to a quota using trip limits and closed seasons was replaced by a system based on the distribution and exchange of portions of the red snapper commercial quota. This has effectively eliminated the occurrence of quota overages. From the sector-wide perspective, this has enabled the fishing season to remain open year round and for total landings to remain within the quota.

The implementation of the IFQ program has resolved both issues of subtractability and excludability, within the sector (see below). Though these controls appear to have improved the problems they were designed to address, the program has benefited some fishermen and been a detriment to others.

Although the **recreational sector** is often described as "open access," open entry is more accurate as a true open access resource lacks rules of usage (Feeny et al. 1990). For the recreational sector, harvest constraints are implemented primarily by reductions to the bag limit and shortening of the fishing season. The bag limit has been reduced from seven red snapper per angler per day in 1990 (when the sector allocation was established), to five fish in 1995, four fish in 1998, and two fish in 2007 (Figure 3.4.1). In 1997, the recreational season in federal waters was shortened for the first time from year round and has been getting shorter ever since. From 2008 through 2012, the recreational season in federal waters averaged 62 days in length. In 2014, the season lasted nine days in federal waters; additional fishing opportunities were provided by the Gulf States in respective state territorial waters.

The practice in recent years of projecting season length for a given quota based on past effort has not prevented the quota from being exceeded (Figure 3.4.2). Without attending measures to actually stop harvest when the quota is met, a quota does not on its own constitute an output control. There is a disjunction between management measures used to constrain the rate of recreational harvest, and attempts to estimate the rate of harvest under such measures, as anglers modify their fishing activity in response to new access restrictions. Even with additional quota, continuing to rely on existing management measures to slow harvest may allow two problems to continue. First, the harvest coming from the recreational sector will continue to face the problems of "subtractability" and "excludability," where the resource is open to anyone able to access it during a particular time. Without rules governing who has access to the resource (excludability), the effects of smaller returns are shared among all participants (subtractability; Feeny et al. 1990; McCay and Acheson 1987).

The second problem concerns the quota overages. Alongside the short seasons and lag time to calculate landings from MRIP, quota overages are likely to continue under the system of predicting season length based on past fishing effort. Faced with a shorter season for a desired target species, individual anglers rationally adjust their effort and fishing activity. With no restrictions on entry to the fishery (excludability), new participants join as well. This has resulted in an inverse relationship between season length and effort, where the shorter the length of the recreational fishing season, the more red snapper have been landed per day, as angler effort is consolidated into a shorter time. However, it cannot be assumed that the pattern would reverse, where an increase in the length of the season would correspond with a proportional reduction in effort. An increasing proportion of the total recreational quota has been landed outside of the federal season under less restrictive state regulations. Compounding this problem, the average weight of a red snapper has increased under the rebuilding plan meaning that each angler's bag limit weighs more. Thus, the rate at which the quota is caught accelerates. That recreational anglers as a sector are said to "exceed the quota" is not a reflection of individual angler compliance, but rather, reflects rational changes to fishing activity under situations of decreased access, and the inability of the existing management system to close harvest before the quota is met. To reduce the likelihood of further quota overages, the Council recently adopted

accountability measures that establish 1) a 20% buffer to the recreational quota, on which the season length would be projected; and 2) an overage adjustment which would decrease the recreational quota in the year following a quota overage by the amount of the overage (GMFMC 2014a). Preliminary landings for 2014 show that recreational landings remained well below the sector's quota.

Recreational anglers can access red snapper fishing by private vessels and for-hire vessels. Both modes share the same bag limit and fishing season; however, additional restrictions are placed on the for-hire fleet, to which private vessels are not subject. Since 2007, captain and crew of for-hire vessels have been prohibited from retaining a bag limit, and there are mandatory reporting requirements for headboats to report all landings and discards. In 2004, a moratorium was put in place on the issuance of federal for-hire permits. As with commercial permits, no new federal for-hire permits may be issued, but existing permits may be transferred. There is no mechanism to limit entry by private recreational vessels. Also, since 2009, federally permitted for-hire vessels are prohibited from landing red snapper outside of the federal season, such as during extended state water seasons.

Thus, the issue of excludability described above reflects private recreational vessels only. During the open season, participation is limited to a finite number of for-hire vessels, but there is no restriction to the number of private vessels that may harvest red snapper. Since the permit moratorium became effective, the number of federally permitted for-hire vessels has decreased, while the number of private fishing licenses has increased. The proportion of red snapper landed by each component of the recreational sector has shifted toward private vessel landings representing a greater proportion of the recreational quota (Figure 3.4.3). For the years 1991-2011, private-angler landings of red snapper represent 45.5% of recreational landings, but represent 56% for just the last six years. For-hire vessel landings of red snapper have decreased proportionally for these same years, from 54.5% to 44% of the recreational landings.

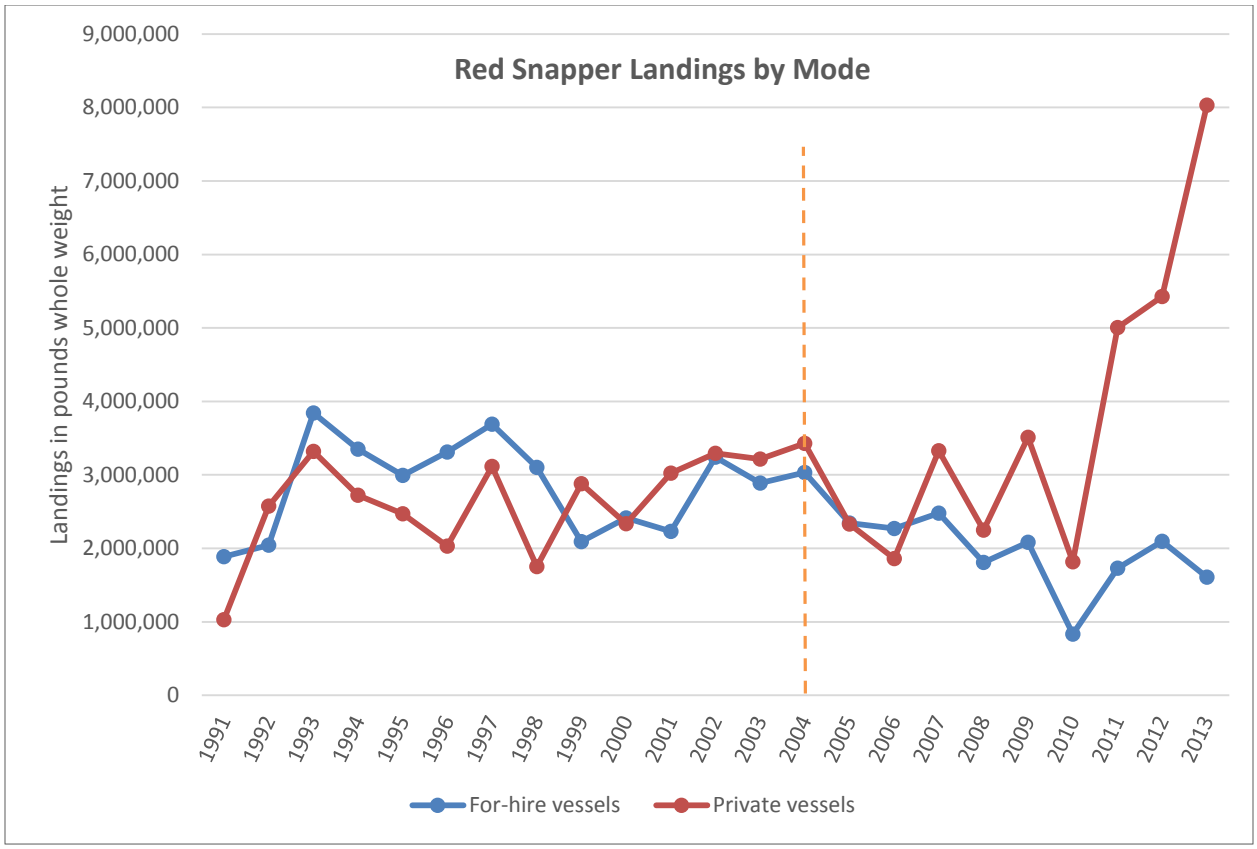

Figure 3.4.3. Red snapper recreational landings by private vessels and for-hire vessels (includes charter boats and headboats). Source: Calibrated MRIP landings, SEFSC Recreational ACL database.

In part as a response to this trend, separate allocations were recently established for the private angling component and the federal for-hire component of the recreational sector (GMFMC 2014b). These component allocations will be the basis for projecting the season lengths in federal waters for anglers utilizing private vessels and state-licensed guideboats (private angling component) and those fishing from federally permitted for-hire vessels (for-hire component). The component allocations and seasons will be in place for the years 2015-2017, unless otherwise modified by the Council.

3.4.1 Fishing Communities

This section provides a description of where recreational and commercial fishing for red snapper occurs. The description is based on the geographical distribution of landings and the relative importance of red snapper for commercial and recreational communities. This spatial approach enables discussion of fishing communities and the importance of fishery resources to those communities, as required by National Standard 8.

Commercial Fishing Communities

To identify commercial reliance, a regional quotient (RQ) measure was used. The RQ measures the relative importance of a given species across all communities in the region and represents the proportional distribution of commercial landings of a particular species. This proportional measure does not provide the number of pounds or the value of the catch; data that might be confidential at the community level for many places. The RQ is calculated by dividing the total pounds (or value) of a species landed in a given community, by the total pounds (or value) for that species for all communities in the region. The measure is a way to quantify the importance of red snapper to communities around the Gulf coast and suggest where impacts from management actions are more likely to be experienced. The data used for the RQ measure were assembled from the accumulated landings system (ALS), which includes commercial landings of all species from both state and federal waters and is based on dealers' reports. Because of this, the address of a dealer may not be the coastal community where the dealer's facility is located.

Commercial red snapper fishing is prosecuted throughout the Gulf region with the majority of landings occurring in the northern Gulf. Based on the RQ measure, the top 15 commercial red snapper fishing communities are identified in Figure 3.4.1.1. A community's proportion of total landings is not static and changes over time. Thus, the figure provides rankings by RQ value for four years: 2000, 2005, 2008, and 2011. The top three communities in terms of commercial landings are Galveston, Texas; Destin, Florida; and Golden Meadow, Louisiana (Figure 3.4.1.1). While in 2000, Panama City, Florida ranked first for commercial red snapper landings Gulf-wide, the community has since been replaced by Destin, Florida in terms of commercial landings of red snapper. Data are not available concerning location of red snapper consumers, such as the proportion of Gulf red snapper that is consumed within the region or elsewhere in the U.S.

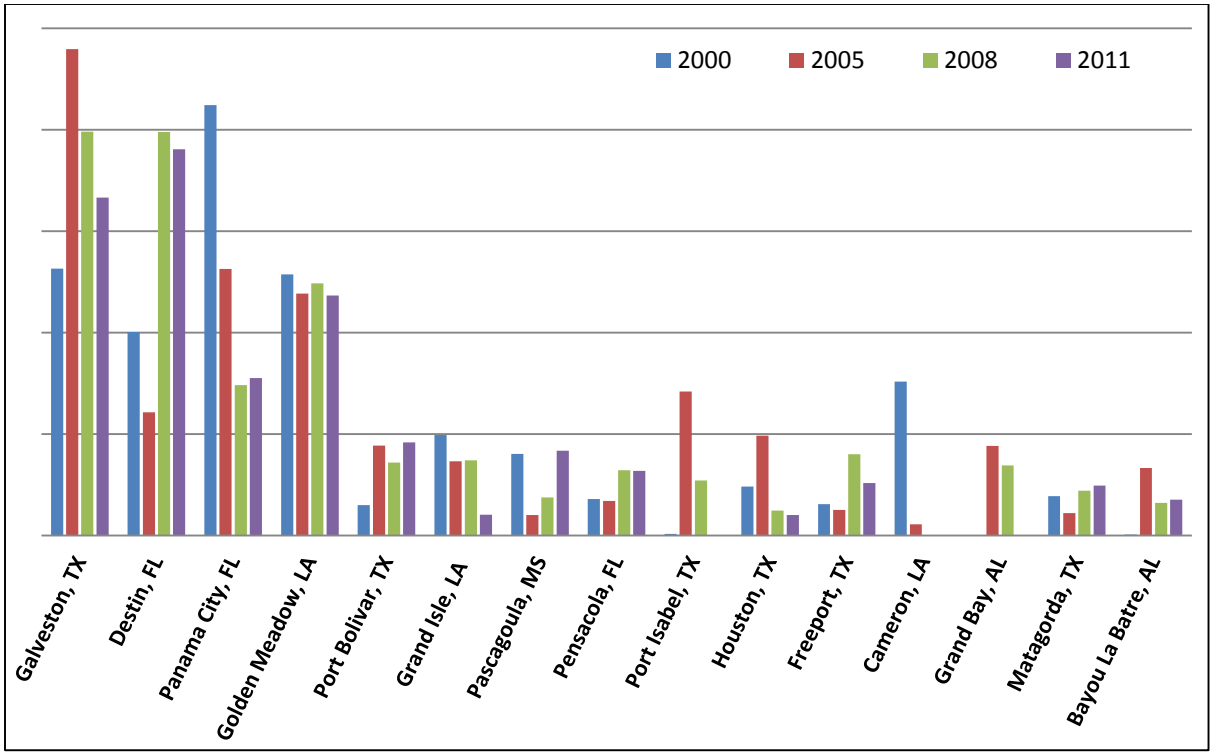

Figure 3.4.1.1. Top 15 commercial red snapper fishing communities by RQ value for four years.

Source: Southeast Fisheries Science Center, accumulated landings system (2011).
To better understand how Gulf fishing communities are engaged and reliant on fishing, indices were created using secondary data from permit and landings information for the commercial and recreational sectors (Jepson and Colburn 2013; Jacob et al. 2012). Fishing engagement is primarily the absolute numbers of permits, landings, and value. Fishing reliance has many of the same variables as engagement divided by population to give an indication of the per capita impact of this activity.

Using a principal component and single solution factor analysis each community receives a factor score for each index to compare to other communities. With the selected communities from both sectors, factor scores of both engagement and reliance were plotted onto bar graphs. Factor scores are denoted by colored bars and are standardized, therefore the mean is zero. Two thresholds of one and ½ standard deviation above the mean are plotted onto the graphs to help determine a threshold for significance. Because the factor scores are standardized a score above 1 is also above one standard deviation. Using the thresholds of fishing dependence of ½ and one standard deviation, Figure 3.4.1.2 suggests that several communities are substantially engaged or reliant or both on commercial fishing.

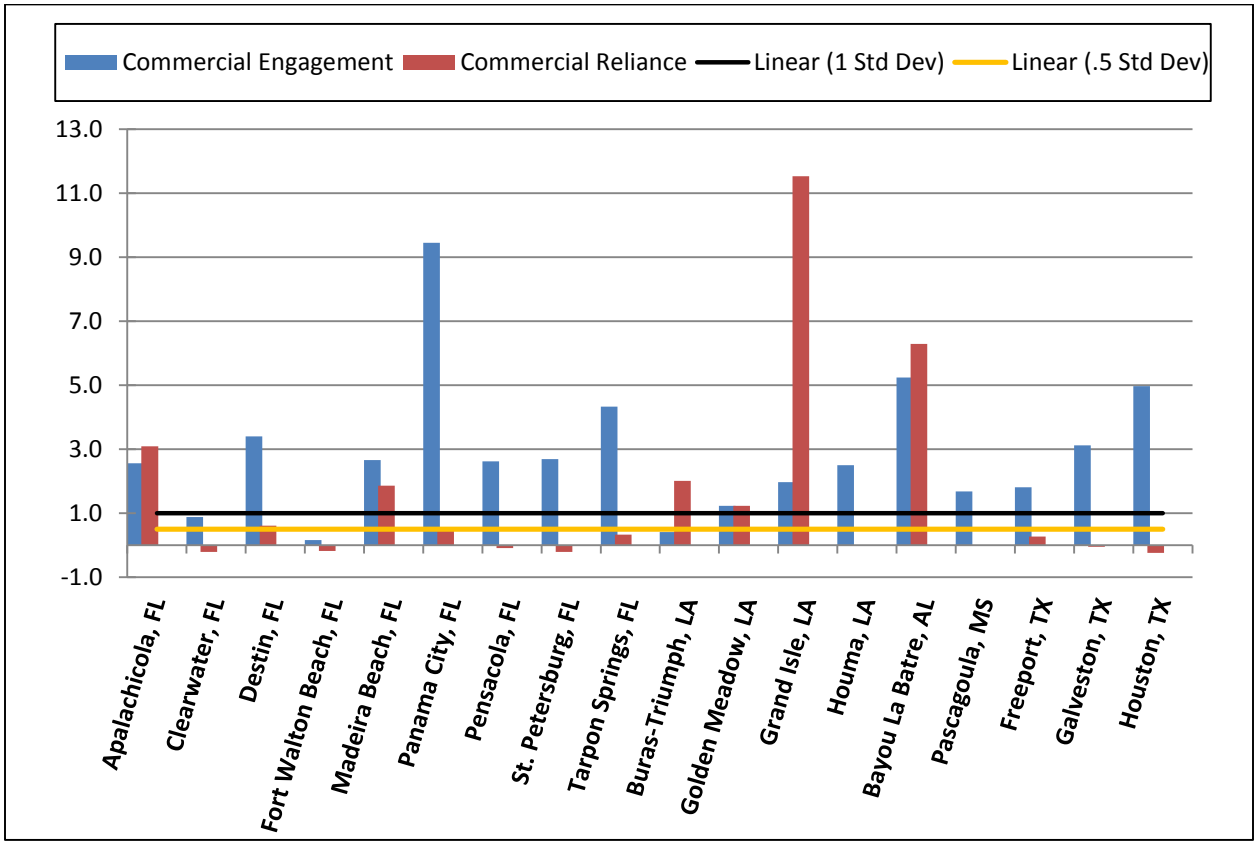

Figure 3.4.1.2. Top 18 red snapper fishing communities' commercial engagement and reliance.
Source: Southeast Regional Office, social indicators database (2012).

Recreational Fishing Communities

Red snapper is harvested recreationally in all states in the Gulf. However, as the red snapper stock has continued to rebuild, the proportion of landings made up by the eastern Gulf States (Alabama and western Florida) has increased compared to the western Gulf States (Texas and Louisiana). Most of the recreational catch is now landed in the eastern Gulf (Table 3.4.1.1). Fishermen in other Gulf States are also involved in recreational red snapper fishing, but these states represent a smaller percentage of the total recreational landings.

Table 3.4.1.1. Percentage of total recreational red snapper landings by state for 2013.

State	Landings
AL	43.9%
FL (Gulf Coast)	40.8%
LA	6.0%
MS	4.5%
TX	4.9%

Source: SERO Calibrated MRIP landings (Dec 2014).

Red snapper landings for the recreational sector are not available at the community level, making it difficult to identify communities as dependent on recreational fishing for red snapper. Data reflecting commercial landings of red snapper may or may not reflect areas of importance for recreational fishing of red snapper. It cannot be assumed that the proportion of commercial red snapper landings among other species in a community would be similar to its proportion among recreational landings within the same community because of sector differences in fishing practices and preferences.

While there are no landings data at the community level for the recreational sector, Table 3.4.1.2 offers a ranking of communities based upon the number of reef fish charter permits and reef fish charter permits divided by population. This is a crude measure of the reliance upon recreational reef fish fishing and is general in nature and not specific to red snapper. Ideally, additional variables quantifying the importance of recreational fishing to a community would be included (such as the amount of recreational landings in a community, availability of recreational fishing related businesses and infrastructure, etc.); however, these data are not available at this time. Because the analysis used discrete geo-political boundaries, Panama City and Panama City Beach had separate values for the associated variables. Calculated independently, each still ranked high enough to appear in the list suggesting a greater importance for recreational fishing in that region. At this time it is impossible to examine the intensity of recreational fishing activity at the community level for a specific species. However, it is likely that those communities that have a higher rank in terms of charter activity and have a dynamic commercial fishery for red snapper will likely have a vigorous recreational red snapper fishery. The communities that meet those criteria are: Destin, Panama City, and Pensacola, Florida; Port Bolivar and Freeport, Texas; and Venice and Grand Isle, Louisiana.

Table 3.4.1.2. Average community rank by total number of reef fish charter permits and divided by community population (SERO 2012).

State	Community	Reef Fish charter permits	Permit Rank	Pop	Permit/Pop	Permit/Pop rank	Combined rank
AL	Orange Beach	105	2	5185	0.0203	3	5
LA	Venice	36	7	202	0.1782	1	8
FL	Destin	114	1	12307	0.0093	10	11
AL	Dauphin Island	19	12	1375	0.0138	5	17
TX	Port Aransas	33	9	3444	0.0096	9	18
LA	Grand Isle	14	17	597	0.0235	2	19
TX	Freeport	40	5	12183	0.0033	15	20
TX	Port O'Connor	15	15	1253	0.0120	7	22
FL	Panama City	60	3	36795	0.0016	20	23
FL	Steinhatchee	13	19	1047	0.0124	6	25
FL	Pensacola	43	4	52903	0.0008	22	26
FL	Panama City Beach	32	10	11364	0.0028	16	26
FL	Apalachicola	17	14	2357	0.0072	12	26
FL	Naples	35	8	20405	0.0017	19	27
LA	Chauvin	15	15	3220	0.0047	13	28
TX	Galveston	38	6	49990	0.0008	23	29
FL	Cedar Key	8	27	463	0.0173	4	31
TX	Matagorda	8	27	710	0.0113	8	35
MS	Biloxi	26	11	43921	0.0006	25	36
FL	Mexico Beach	9	25	1181	0.0076	11	36
FL	Carrabelle	10	23	2612	0.0038	14	37
FL	Sarasota	18	13	52877	0.0003	26	39
FL	Madeira Beach	11	21	4335	0.0025	18	39
FL	Port St Joe	10	23	3560	0.0028	17	40
FL	Tarpon Springs	14	17	23071	0.0006	24	41
FL	St Petersburg	12	20	245715	0.0000	27	47
FL	Treasure Island	8	27	6847	0.0012	21	48
TX	Houston	11	21	2068026	0.0000	29	50
TX	Corpus Christi	9	26	299324	0.0000	28	54

Destin and Panama City are likely more reliant with regard to recreational fishing as they have numerous charter operations. When visiting charter service websites from these two communities photos of red snapper are very prominent and advertised as a key target species (http://www.fishdestin.com/fishinggallery.html; and http://www.jubileefishing.com/). Panacea is less reliant upon red snapper and located in a more rural area than the other communities. In terms of occupation it has the lowest percentage working in farming, forestry, and fishing, yet it does have the largest percentage class of worker in that category. All of these communities are considered to be primarily involved in fishing based upon their community profiles (Impact Assessment, Inc. 2005).

The Orange Beach Red Snapper World Championship Tournament, billed as "Alabama's state celebration of recreational saltwater fishing,"[15] was an annual event in March. Dauphin Island, Alabama also has a number of charter services that specialize in bottom fishing, especially for red snapper[16]. All three Alabama communities are considered primarily involved in fishing as noted in their fishing communities' profiles (Impact Assessment, Inc. 2006). Red snapper fishing is featured at Pascagoula charter websites[17] and the community is regarded as primarily involved in fishing according to its community profile (Impact Assessment, Inc. 2006).

Venice and Grand Isle, Louisiana, are also ranked among the top recreational fishing communities. A sampling of charter service websites from these communities indicates they do feature red snapper as a target species but not as prominently as charter services from other states.

Red snapper are also an important species for charter fishing in Galveston and Freeport, Texas. Many of the charter services include photos of red snapper catches on their website and note that this species is one of their prime target species.[18] Although, many inshore species like trout and redfish are more prominently displayed. Matagorda and Freeport are noted as being primarily involved in fishing while Galveston is secondarily involved.

The following figure was produced from the indicator database as described above for the commercial sector. Figure 3.4.1.3 identifies recreational communities engaged and reliant upon fishing in general. Using thresholds of fishing dependence of ½ standard deviation and one standard deviation, Figure 3.4.1.3 suggests that several communities are substantially engaged in recreational fishing.

[15] http://www.cityoforangebeach.com/pages_2007/pdfs/events/2009/2009_Snapper_Tournament.pdf
[16] http://gulfinfo.com/fishing.htm
[17] http://www.jkocharters.com/1938863.html
[18] http://www.texassaltwaterfishingguide.com/ or http://www.matagordabay.com/

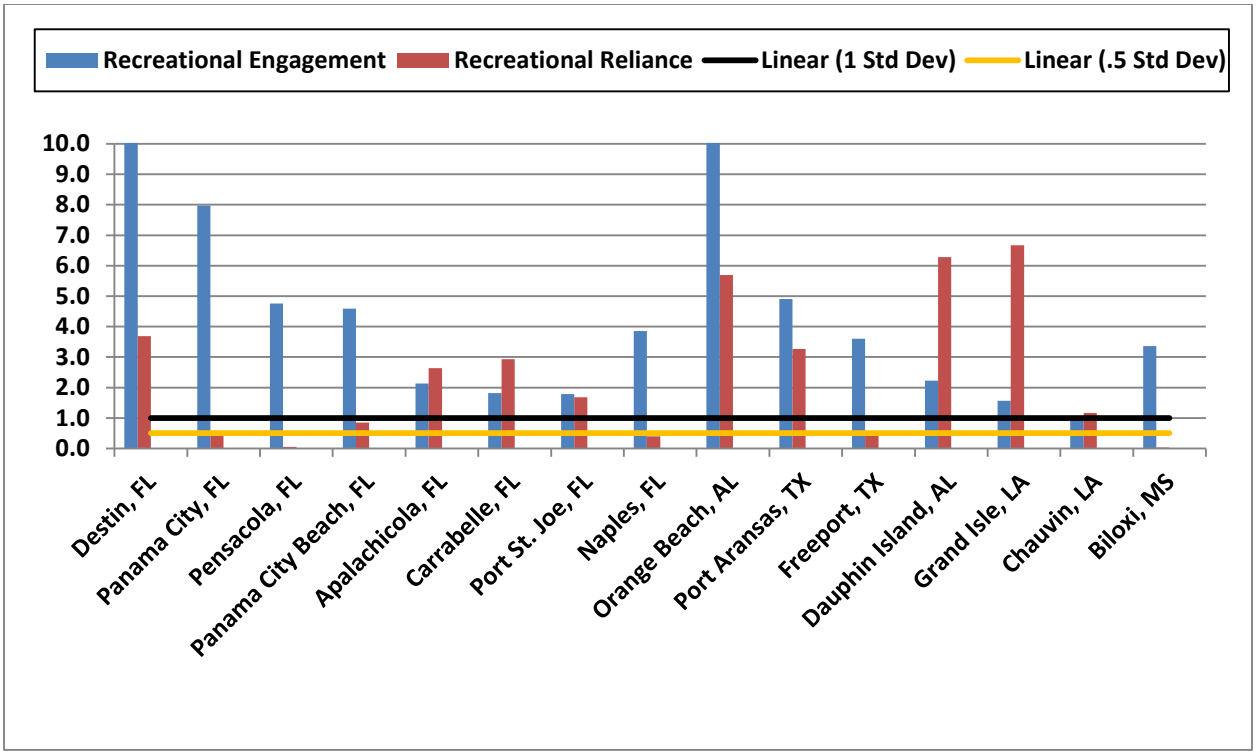

Figure 3.4.1.3. Top 15 recreational fishing communities' engagement and reliance.
Source: Southeast Regional Office, social indicators database (2012).

3.4.2 Environmental Justice Considerations

Executive Order 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. The main focus of Executive Order 12898 is to consider "the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories…" This executive order is generally referred to as environmental justice (EJ).

Commercial red snapper fishermen and associated businesses and communities along the coast are likely to be impacted by this proposed action. However, information on race, ethnicity, and income status for groups at the different participation levels and roles is not available, because these types of data are not collected by NMFS or other agencies. To identify potential areas of EJ concern, this analysis uses a suite of indices created to examine the social vulnerability of coastal communities (Jepson and Colburn 2013). The three indices are poverty, population composition, and personal disruptions. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community's vulnerability. Indicators such as increased poverty rates for different groups, more single

female-headed households and households with children under the age of five, disruptions such as higher separation rates, higher crime rates, and unemployment all are signs of populations experiencing vulnerabilities. Communities that exceed the threshold for one or more of the indices would be expected to exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change.

The commercial communities most engaged and reliant on red snapper fishing are identified in Figure 3.4.1.2, including each community's score for the three social vulnerability indices. The communities of Apalachicola and Panama City, Florida; Golden Meadow, Grand Isle, and Houma, Louisiana; Bayou La Batre, Alabama; Pascagoula, Mississippi; and Freeport, Galveston, and Houston, Texas exceed the threshold of ½ standard deviation above the mean for at least one of the social vulnerability indices. It would be expected that these communities may exhibit vulnerabilities to social or economic disruption because of regulatory change, and would be the communities most likely subject to EJ concerns. Those communities that exhibit several index scores exceeding the threshold would be the most vulnerable. These include Apalachicola, Florida; Golden Meadow, Louisiana; Bayou La Batre, Alabama; Pascagoula, Mississippi; and Freeport, Galveston, and Houston, Texas. Five communities exceed the threshold of ½ standard deviation for all three indices (Bayou La Batre, Alabama; Pascagoula, Mississippi; and Freeport, Galveston, and Houston, Texas). Social effects resulting from action taken in this plan amendment are likely to be greatest in these communities.

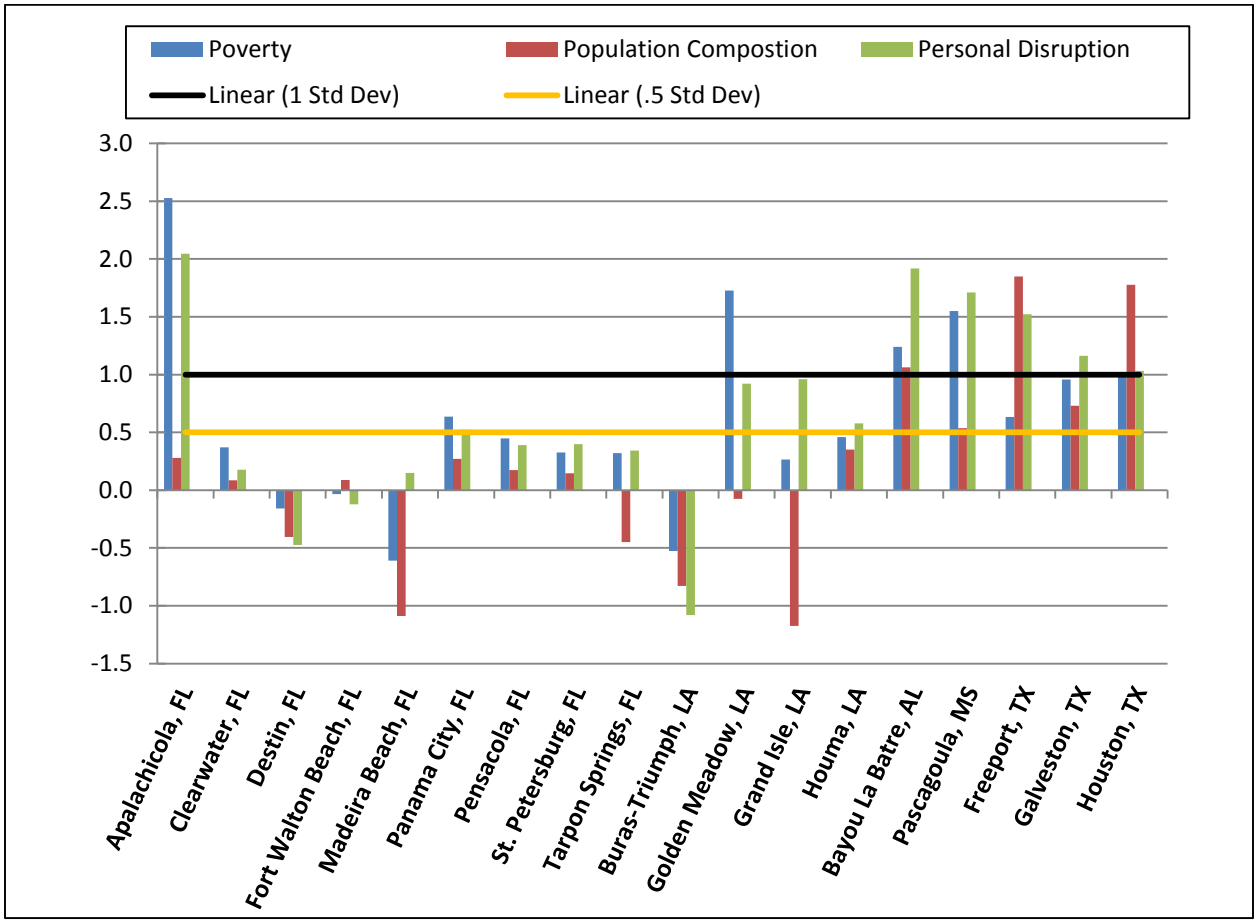

Figure 3.4.2.1. Social vulnerability indices for red snapper commercial fishing communities

Source: Southeast Regional Office, social indicators database (2012).

Recreational red snapper fishermen and associated businesses and communities along the coast are expected to benefit from this proposed action. Thus, no EJ concerns are expected for participants in the recreational sector. Figure 3.4.2.2 provides the scores of the social vulnerability indices for the top recreational fishing communities identified in Figure 3.4.1.3. Communities that exceed the threshold for one or more indices would be expected to exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change, and greater vulnerability is suggested by exceeding the thresholds for multiple indices. However, regulatory change that would impact recreational participants in these communities is not expected.

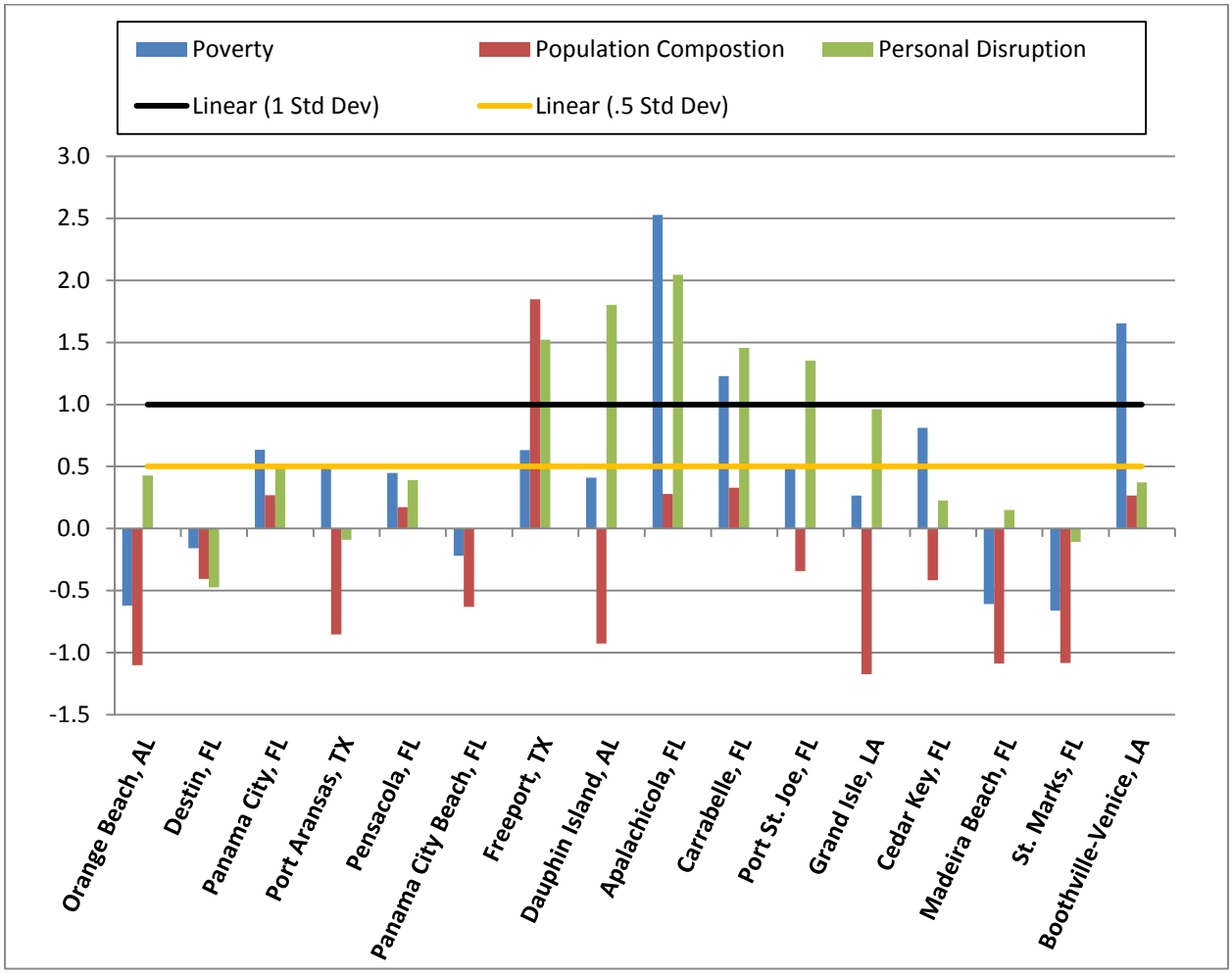

Figure 3.4.2.2. Social vulnerability indices for recreational fishing communities.
Source: Southeast Regional Office, social indicators database (2012).

These indicators of vulnerability have been developed using secondary data at the community level because it does not exist for fishermen individually and is not collected through permit application or other programs that might be vehicles for this type of data. Because these types of data are not collected at the individual level by NMFS or other agencies, it is difficult to

understand the social vulnerabilities that might exist on either a household or individual basis. Therefore, it is hard to recognize or attribute impacts that will directly affect individuals who are fishermen or work in a related business because we do not know what those specific vulnerabilities may be. Therefore, our measure of vulnerability is a broader measure at the community level and not specific to fishermen or the related businesses and their employees. Finally, there are no known claims for customary usage or subsistence consumption of Gulf red snapper by any population including tribes or indigenous groups.

3.5 Description of the Economic Environment

3.5.1 Commercial Sector

3.5.1.1 Vessel Activity

A description of the red snapper individual fishing quota (IFQ) program is contained in NMFS (2014) and is available at: http://sero.nmfs.noaa.gov/sustainable_fisheries/lapp_dm/index.html. This description is incorporated herein by reference and is summarized below. Tables 3.5.1.1.1 and 3.5.1.1.2 contain summary vessel and trip counts, landings, and revenue information from vessels landing at least one pound of red snapper from 2008 through 2014. Data for 2014 is preliminary and data from years prior to the implementation of the IFQ program are not representative of current conditions.

The tables contain vessel counts from the NMFS Southeast Fisheries Science Center (SEFSC) logbook (logbook) data (vessel count, trips, and landings) and the NMFS Southeast Regional Office (SERO) Limited Access Privilege Program (LAPP) data (vessel count). Dockside values were generated using landings information from logbook data and price information from the NMFS SEFSC Accumulated Landings System (ALS) data. The logbook and LAPP data programs serve different purposes and use different data collection methods. Consequently, comparative analysis of data from these programs may produce different results, as evidenced by the vessel counts provided in Table 3.5.1.1.1. However, this assessment utilizes logbook data because the logbook program collects data on all species harvested on trips on which red snapper are harvested, as well as harvests by these vessels on trips without red snapper.

On average, 3545 vessels per year landed red snapper (Table 3.5.1.1.1). These vessels, combined, averaged 2,773 trips per year on which red snapper was landed and 1,848 trips without red snapper (Table 3.5.1.1.1). The average annual total dockside revenue (2014 dollars) was approximately $12.04 million from red snapper, approximately $13.13 million from other species co-harvested with red snapper (on the same trip), and approximately $10.57 million from other species harvested on trips on which no red snapper were harvested (Table 3.5.1.1.2). Total average annual revenues were approximately $35.733 million, or approximately $102,000 per vessel (Table 3.5.1.1.2).

Table 3.5.1.1.1. Summary of vessel counts, trips, and logbook landings (pounds gutted weight (lbs gw)) or vessels landing at least one pound of red snapper, 2008-2014.

Year	Number of Vessels, Logbook Data	Number of Vessels, LAPPs Data	Number of Trips that Caught Red Snapper, Logbook Data	Red Snapper Landings (lbs gw)	"Other Species" Landings Jointly Caught with Red Snapper (lbs gw)	Number of Trips that Only Landed "Other Species"	"Other Species" Landings on Trips without Red Snapper (lbs gw)
2008	308	297	2,274	2,163,312	3,755,670	2,552	4,085,616
2009	296	294	2,329	2,163,632	3,883,389	2,425	4,430,510
2010	375	384	2,970	2,939,254	4,040,460	1,717	3,106,308
2011	368	362	3,389	3,073,697	5,539,520	1,959	4,422,791
2012	365	371	3,432	3,469,118	5,525,735	2,026	4,818,703
2013	359	368	3,389	4,424,324	5,257,821	1,699	3,632,756
2014	410	401	1,628	2,735,798	2,217,577	560	1,008,224
Average	354	354	2,773	2,995,591	4,317,167	1,848	3,643,558

2014 data is preliminary; initial estimate using LAPPs data indicates 2014 red snapper landings of 5,016,056 lbs gw.
Source: NMFS SEFSC Logbook and NMFS SERO LAPPs data.

Table 3.5.1.1.2. Summary of vessel counts and revenue (thousand 2014 dollars) for vessels landing at least one pound of red snapper, 2008-2014.

Year	Number of Vessels, Logbook Data	Dockside Revenue from Red Snapper	Dockside Revenue from "Other Species" Jointly Caught with Red Snapper	Dockside Revenue from "Other Species" Caught on Trips without Red Snapper	Total Dockside Revenue	Average Total Dockside Revenue per Vessel
2008	308	$8,769	$10,415	$11,132	$30,317	$98
2009	296	$8,500	$10,382	$11,559	$30,441	$103
2010	375	$11,054	$12,045	$8,599	$31,699	$85
2011	368	$11,530	$16,698	$12,707	$40,935	$111
2012	365	$13,785	$17,140	$14,443	$45,368	$124
2013	359	$19,261	$17,538	$12,295	$49,095	$137
2014	410	$11,356	$7,681	$3,239	$22,276	$54
Average	354	$12,036	$13,128	$10,568	$35,733	$102

2014 data is preliminary. Source: NMFS SEFSC Logbook and ALS data.

As can be gleaned from Tables 3.5.1.1.1 and 3.5.1.1.2, commercial fishing for red snapper in 2010 appeared to be unaffected, from a landings and revenue perspective, by conditions associated with the Deepwater Horizon MC252 oil spill. This was not the case for the recreational sector as will be shown below.

Share, Allocation, and Ex-vessel Prices

Price information is an important component for evaluating the performance of a catch share program. Economic theory states that as fishermen no longer have to out-compete other fishermen for a share of the catch, the profits will increase as fishermen adjust the scale and scope of their operations to take advantage of market conditions. This results in increased market stability and value for shares and allocations, as more efficient fishermen are willing to pay higher prices to purchase additional shares and/or allocation from less efficient operators. Theoretically, allocation prices should reflect the expected annual net profit from harvesting one unit of quota, whereas share prices should reflect the present value of the flow of expected net returns from harvesting one unit of quota. Dockside or ex-vessel prices are the price the vessel receives at the first sale of harvest. In 2013, the median share price per pound of red snapper was $40.00 (average price $36.24), the median allocation price per pound was $3.00 (average price $2.98), and the median ex-vessel price per pound was $4.75 (average price $4.46). Similar final data for 2014 are not currently available and data from previous years can be found in NMFS (2014).

3.5.1.2 Commercial Sector Business Activity

Estimates of the business activity (economic impacts) in the U.S. associated with the Gulf red snapper commercial harvests were derived using the model developed for and applied in NMFS (2011b) and are provided in Table 3.5.1.2.1. Business activity for the commercial sector is characterized in the form of full-time equivalent (FTE) jobs, income impacts (wages, salaries, and self-employed income), and output (sales) impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting. The estimates of economic activity include the direct effects (effects in the sector where an expenditure is actually made), indirect effects (effects in sectors providing goods and services to directly affected sectors), and induced effects (effects induced by the personal consumption expenditures of employees in the direct and indirectly affected sectors).

Table 3.5.1.2.1. Average annual business activity associated with the harvests of vessels that harvest red snapper, 2008-2014.

Species	Average Annual Dockside Revenue (thousands)[1]	Total Jobs	Harvester Jobs	Output (Sales) Impacts (thousands)[1]	Income Impacts (thousands)[1]
Red snapper	$12,036	2,127	277	$158,475	$67,540
All species[2]	$35,733	6,315	824	$470,470	$200,510

[1]2014 dollars.

[2]Includes dockside revenues and economic activity associated with the average annual harvests of all species, including red snapper, harvested by vessels that harvested red snapper.

In addition to red snapper harvests, as discussed above, vessels that harvested red snapper also harvested other species on trips where red snapper were harvested. These vessels also took trips during the year where only species other than red snapper were caught. All revenues from all species on all these trips contributed towards making these vessels economically viable and contribute to the economic activity associated with these vessels. The average annual total ex-vessel revenues from all species (including red snapper) harvested during this period (2008-2014) by vessels that harvested red snapper was approximately $35.73 million (2014 dollars). In terms of business activity, these revenues are estimated to support 6,315 FTE jobs (824 in the harvesting sector) and are associated with approximately $470.47 million in output (sales) impacts and approximately $200.51 million in income impacts.

3.5.1.3 Dealers

Commercial vessels landing red snapper can only sell their catch to federally permitted fish dealers. On February 5, 2015, 69 dealers possessed the necessary federal dealer permit and the IFQ endorsement necessary to receive Gulf LAPP species (LAPP data). Because there are no income or sales requirements to acquire a federal dealer permit or IFQ endorsement, the total number of dealers can vary over the course of the year and from year to year. In addition to red snapper, grouper and tilefish are Gulf LAPP species and not all dealers authorized to receive Gulf LAPP species purchase red snapper. The following results are based on assessment of ALS data. In 2012, 92 dealers reported red snapper purchases. Seventy-three of these dealers were in Florida, six in Texas, six in Louisiana, four in Alabama, and three in Mississippi. Total red snapper purchased by these dealers in 2011 had an ex-vessel value of approximately $13.89 million (2014 dollars), or approximately 12.84% of the total revenues, approximately $108.20 million (2014 dollars), from all marine resource purchases by these dealers. Dependency on red snapper sales varies by dealer, with the percentage of red snapper purchases (value, not pounds) to total purchases varying from less than 1% to 100%. Red snapper purchases in 2012 comprised 10% or more of total purchases for 40 of these dealers, 50% or more for 11 dealers, and 5% or less for 38 dealers. Average red snapper dependency (measured as the percentage of red snapper ex-vessel value relative to the total value of all seafood purchases) was highest for Mississippi and Texas dealers, approximately 34% and 28%, respectively, followed by Alabama (approximately 21%), Florida (approximately 10%), and Louisiana (approximately 8%).

3.5.1.4 Imports

Information on the imports of all snapper and grouper species, either fresh or frozen, are available at: http://www.st.nmfs.noaa.gov/st1/trade/cumulative_data/TradeDataProduct.html. Information on the imports of individual snapper or grouper species is not available. In 2012, imports of all snapper and grouper species (fresh and frozen) were approximately 44.51 million pounds valued at approximately $132.19 million (2014 dollars). These amounts are contrasted with the domestic harvest of all snapper and grouper in the U.S. in 2012 of approximately 19.60 mp valued at approximately $62.41 million (2014 dollars; data available at: http://www.st.nmfs.noaa.gov/commercial-fisheries/publications/index). Although the levels of domestic production and imports are not totally comparable for several reasons, including considerations of different product form such as fresh versus frozen, and possible product

mislabeling, the difference in the magnitude of imports relative to amount of domestic harvest is indicative of the dominance of imports in the domestic market. Final comparable data for more recent years is not currently available.

3.5.2 Recreational Sector

3.5.2.1 Angler Effort

Recreational effort derived from the MRFSS/MRIP database can be characterized in terms of the number of trips as follows:

1. Target effort - The number of individual angler trips, regardless of duration, where the intercepted angler indicated that the species or a species in the species group was targeted as either the first or second primary target for the trip. The species did not have to be caught.

2. Catch effort - The number of individual angler trips, regardless of duration and target intent, where the individual species or a species in the species group was caught. The fish did not have to be kept.

3. Total recreational trips - The total estimated number of recreational trips in the Gulf, regardless of target intent or catch success.

Other measures of effort are possible, such as the number of harvest trips (the number of individual angler trips that harvest a particular species regardless of target intent), and directed trips (the number of individual angler trips that either targeted or caught a particular species), among other measures, but the three measures of effort listed above are used in this assessment. Estimates of the average annual red snapper effort (in terms of individual angler trips) for the charter and private/rental boat modes in the Gulf for 2008-2014 are provided in Table 3.5.2.1.1 for target trips and Table 3.5.2.1.2 for catch trips. Estimates of red snapper target effort for additional years, and other measures of directed effort, are available at http://www.st.nmfs.noaa.gov/recreational-fisheries/access-data/run-a-data-query/queries/index.

Because of the Deepwater Horizon MC252 oil spill, 2010 was not a typical year for recreational fishing due to the extensive closures and associated decline in fishing in much of the Gulf. For information on the Deepwater Horizon MC252 oil spill and associated closures, see: http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm. Recreational effort for Alabama and Louisiana was affected by the 2010 oil spill incident more than that for Florida. This holds true for both the charter (target and catch effort) and private modes (target and catch effort).

Table 3.5.2.1.1. Number of red snapper recreational target trips, by mode, 2008-2014*.

	Alabama	West Florida	Louisiana	Mississippi	Total
	Charter Mode				
2008	14,330	29,166	8,270	0	51,766
2009	14,894	30,987	7,916	0	53,797
2010	2,789	16,466	0	208	19,463
2011	19,010	29,642	1,424	0	50,076
2012	16,609	24,653	7,204	74	48,540
2013	23,638	32,689	7,191	38	63,556
2014	9,050	7,358	0	0	16,408
Average	14,331	24,423	4,572	46	43,372
	Private/Rental Mode				
2008	24,995	131,300	23,594	8,877	188,766
2009	60,689	191,048	34,196	7,622	293,555
2010	20,759	129,748	3,338	5,451	159,296
2011	116,886	113,021	19,900	16,790	266,597
2012	72,030	136,594	43,547	13,515	265,686
2013	222,245	461,349	24,691	21,586	729,871
2014	56,918	165,498	0	7,555	229,971
Average	82,075	189,794	21,324	11,628	304,820
	All Modes				
2008	39,325	160,466	31,864	8,877	240,532
2009	75,583	222,035	42,112	7,622	347,352
2010	23,548	146,214	3,338	5,659	178,759
2011	135,896	142,663	21,324	16,790	316,673
2012	88,640	161,247	50,751	13,589	314,227
2013	245,883	494,038	31,882	21,624	793,427
2014	65,968	172,856	0	7,555	246,379
Average	96,406	214,217	25,896	11,674	348,193

* Texas information unavailable. Source: MRIP database, NMFS, SERO.
Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.
Note: There were no target trips recorded from the shore mode.

Table 3.5.2.1.2. Number of red snapper recreational catch trips, by mode, 2008-2014*.

	Alabama	West Florida	Louisiana	Mississippi	Total
	Charter Mode				
2008	33752	136059	16238	343	186392
2009	30692	122842	14284	0	167818
2010	12,495	57,662	205	261	70,623
2011	43,550	101,500	3,066	221	148,337
2012	25,252	105,385	10,501	74	141,212
2013	52,331	107,466	12,321	38	172,156
2014	36,340	66,559	0	0	102,899
Average	33,487	99,639	8,088	134	141,348
	Private/Rental Mode				
2008	52,430	338,514	46,264	11,499	448,707
2009	77,838	343,635	59,071	17,685	498,229
2010	46,017	252,300	5,764	6,964	311,045
2011	130,500	203,567	31,957	6,169	372,193
2012	83,783	282,332	51,377	13,515	431,007
2013	227,889	537,469	55,679	29,250	850,287
2014	110,593	233,265	0	10,254	354112
Average	104,150	313,012	35,730	13,619	466,511
	All Modes				
2008	86,182	474,573	62,502	11,842	635,099
2009	108,530	466,477	73,355	17,685	666,047
2010	58,512	309,962	5,969	7,225	381,668
2011	174,050	305,067	35,023	6,390	520,530
2012	109,035	387,717	61,878	13,589	572,219
2013	280,221	644,935	68,000	29,288	1,022,444
2014	146,933	299,824	0	10,254	457,011
Average	137,637	412,651	43,818	13,753	607,860

* Texas information unavailable. Source: MRIP database, NMFS, SERO.
Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.
Note: There were no catch trips recorded from the shore mode.

Headboat data do not support the estimation of target or catch effort because target intent is not collected and the harvest data (the data reflect only harvest information and not total catch) are collected on a vessel basis and not by individual angler. Table 3.5.2.1.3 contains estimates of the number of headboat angler days for all Gulf States for 2008-2014. As with charter boats, headboats were also affected by the Deepwater Horizon MC252 oil spill in 2010, particularly in

Alabama/West Florida and Louisiana. The oil spill's impacts on Texas headboats appear to be relatively small.

Table 3.5.2.1.3. Headboat angler days, 2008-2014.

Year	W Florida/Alabama	Louisiana	Mississippi	Texas	Total
2008	130,176	2,945	0	41,188	174,309
2009	142,438	3,268	0	50,737	196,443
2010	111,018	217	*	47,154	158,389
2011	157,025	1,886	1,771	47,284	207,966
2012	161,973	1,839	1,840	51,771	217,423
2013	174,800	1,579	1,827	55,749	233,955
2014	191,365	1,634	1,623	51,231	245,853
Average	152,685	1,910	1,177	49,302	204,905

*Confidential. Source: NMFS Southeast Region Headboat Survey (HBS).

3.5.2.2 Permits

The for-hire sector is comprised of charter boats and headboats (party boats). Although charter boats tend to be smaller, on average, than headboats, the key distinction between the two types of operations is how the fee is determined. On a charter boat trip, the fee charged is for the entire vessel, regardless of how many passengers are carried, whereas the fee charged for a headboat trip is paid per individual angler.

A federal for-hire vessel permit has been required for reef fish since 1996 and the sector currently operates under a limited access system. On April 25, 2015, there were 1,159 valid (non-expired) or renewable Gulf of Mexico Charter/Headboat Reef Fish Permits. A renewable permit is an expired permit that may not be actively fished, but is renewable for up to one year after expiration. Although the for-hire permit application collects information on the primary method of operation, the resultant permit itself does not identify the permitted vessel as either a headboat or a charter boat, operation as either a headboat or charter boat is not restricted by the permitting regulations, and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the NMFS Southeast Region Headboat Survey (HBS). Participation in the HBS is based on determination by the SEFSC that the vessel primarily operates as a headboat. Sixty-nine vessels were registered in the SHRS as of April 24, 2015 (K. Fitzpatrick, NMFS SEFSC, pers. comm.). The majority of these headboats were located in Florida (37), followed by Texas (16), Alabama (9), and Mississippi/Louisiana (7).

Information on Gulf charter boat and headboat operating characteristics, including average fees and net operating revenues, is included in Savolainen et al. (2012) and is incorporated herein by reference.

There are no specific federal permitting requirements for recreational anglers to fish for or harvest reef fish. Instead, anglers are required to possess either a state recreational fishing permit

that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. As a result, it is not possible to identify with available data how many individual anglers would be expected to be affected by this proposed amendment. (Note: although it is not a federal permit, Louisiana has developed an offshore angler permit. Tabulation of these permits would be expected to provide an estimate of only a small portion of the total number of individual anglers expected to be affected by this proposed amendment.)

3.5.2.3 Economic Value

Economic value can be measured in the form of consumer surplus (CS) per additional red snapper kept on a trip for anglers (the amount of money that an angler would be willing to pay for a fish in excess of the cost to harvest the fish). The estimated value of the CS per fish for a second red snapper kept on a trip is approximately $81 (Carter and Liese 2012; values updated to 2014 dollars[19]).

With regards to for-hire businesses, economic value can be measured by producer surplus (PS) per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of the PS per for-hire passenger trip are not available. Instead, net operating revenue (NOR), which is the return used to pay all labor wages, returns to capital, and owner profits, is used as a proxy for PS. The estimated NOR value is $153.45 (2014 dollars) per charter angler trip (Liese and Carter 2012). The estimated NOR value per headboat angler trip is $52.97 (2014 dollars) (C. Liese, NMFS SEFSC, pers. comm.). Estimates of NOR per red snapper target trip are not available.

3.5.2.4 Recreational Sector Business Activity

Estimates of the business activity (economic impacts) associated with recreational angling for red snapper were derived using average impact coefficients for recreational angling for all species, as derived from an add-on survey to the MRFSS to collect economic expenditure information, as described and utilized in NMFS (2011a). Estimates of these coefficients for target or catch behavior for individual species are not available. Estimates of the average expenditures by recreational anglers are also provided in NMFS (2011a) and are incorporated herein by reference.

Business activity for the recreational sector is characterized in the form of fulltime equivalent (FTE) jobs, output (sales) impacts (gross business sales), and value-added impacts (difference between the value of goods and the cost of materials or supplies). Job and output (sales) impacts are equivalent metrics across both the commercial and recreational sectors. Income impacts (commercial sector) and value-added impacts (recreational sector) are not equivalent, though similarity in the magnitude of multipliers generated and used for the two metrics may result in roughly equivalent values. Similar to income impacts, value-added impacts should not be added to output (sales) impacts because this would result in double counting.

[19] Converted to 2014 dollars using the 2014 annual Consumer Price Index (CPI) for all US urban consumers provided by the Bureau of Labor and Statistics (BLS).

Estimates of the average red snapper effort (2008-2014) and associated business activity (2014 dollars) are provided in Table 3.5.2.4.1. Red snapper target effort (trips) was selected as the measure of red snapper effort. More individual angler trips catch red snapper than target red snapper, however, as shown in Tables 3.5.2.1.1 and 3.5.2.1.2. Estimates of the business activity associated with red snapper catch trips can be calculated using the ratio of catch trips to target trips because the available estimates of the average impacts per trip are not differentiated by trip intent or catch success. For example, if the estimated number of catch trips is three times the number of target trips for a particular state and mode, the estimate of the business activity associated with these catch trips would equal three times the estimated impacts of target trips.

The estimates of the business activity associated with red snapper recreational trips are only available at the state level. Addition of the state-level estimates to produce a regional or national total will underestimate the actual amount of total business activity because summing the state estimates will not capture business activity that leaks outside the individual states. A state estimate only reflects activities that occur within that state and not related activity that occurs in another state. For example, if a good is produced in Alabama but sold in Florida, the measure of business activity in Florida associated with the its sale in Florida does not include the production process in Alabama. Assessment of business activity at the national (or regional) level would capture activity in both states and include all activity except that which leaks into other nations.

It is noted that these estimates do not, and should not be expected to, represent the total business activity associated with a specific recreational harvest sector in a given state or in total. For example, these results do not state, or should be interpreted to imply, that there are only 154 jobs associated with the charter sector in Alabama. Instead, as previously stated, these results relate only to the business activity associated with target trips for red snapper. Because of the seasonal nature of red snapper fishing, few, if any businesses or jobs, would be expected to be devoted solely to red snapper fishing. The existence of these businesses and jobs, in total, is supported by the fishing for, and expenditures on, the variety of marine species available to anglers throughout the year.

Table 3.5.2.4.1. Summary of red snapper target trips (2008-2014 average) and associated business activity (2014 dollars). Output and value added impacts are not additive.

	Alabama	West Florida	Louisiana	Mississippi	Texas
	Private/Rental Mode				
Target Trips	86,379	199,748	22,442	12,238	*
Output Impact	$4,507,527	$10,429,860	$1,637,848	$415,894	*
Value Added Impact	$2,439,327	$5,905,958	$787,050	$211,537	*
Jobs	50	93	13	4	*
	Charter Mode				
Target Trips	15,083	25,704	4,812	48	*
Output Impact	$9,306,752	$18,200,595	$2,247,124	$18,932	*

Value Added Impact	$6,369,045	$12,168,075	$1,545,170	$13,337	*
Jobs	94	166	18	0	*
	All Modes				
Target Trips	101,462	225,452	27,254	12,286	*
Output Impact	$13,814,279	$28,630,455	$3,884,972	$434,827	*
Value Added Impact	$8,808,372	$18,074,032	$2,332,219	$224,874	*
Jobs	144	260	31	4	*

*Because target information is unavailable, associated business activity cannot be calculated.
Note: There were no target trips recorded from the shore mode.
Source: effort data from the MRIP, economic impact results calculated by NMFS SERO using the model developed for NMFS (2011b).

Estimates of the business activity (impacts) associated with headboat red snapper effort are not available. The headboat sector in the Southeast is not covered in the MRFSS/MRIP, so estimation of the appropriate impact coefficients for the headboat sector has not been conducted. While appropriate impact coefficients are available for the charter sector, potential differences in certain factors, such as the for-hire fee, rates of tourist versus local participation, and expenditure patterns, may result in significant differences in the business impacts of the headboat sector relative to the charter sector.

3.6 Description of the Administrative Environment

3.6.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801 *et seq*.), originally enacted in 1976 as the Fishery Conservation and Management Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the exclusive economic zone, an area extending 200 nautical miles from the seaward boundary of each of the coastal states, and authority over U.S. anadromous species and continental shelf resources that occur beyond the exclusive economic zone.

Responsibility for federal fishery management is shared by the Secretary of Commerce (Secretary) and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for promulgating regulations to implement proposed plans and amendments after ensuring management measures are consistent with the Magnuson-Stevens Act and with other applicable laws summarized in Appendix A. In most cases, the Secretary has delegated this authority to NMFS.

The Council is responsible for fishery resources in federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The length of the Gulf coastline is approximately 1,631 miles. Florida has the longest coastline of 770 miles along its Gulf coast, followed by Louisiana (397 miles), Texas (361 miles), Alabama (53 miles), and Mississippi (44 miles).

The Council consists of seventeen voting members: 11 public members appointed by the Secretary; one each from the fishery agencies of Texas, Louisiana, Mississippi, Alabama, and Florida; and one from NMFS. The public is also involved in the fishery management process through participation on advisory panels and through Council meetings that, with few exceptions for discussing personnel matters, are open to the public. The regulatory process is also in accordance with the Administrative Procedures Act, in the form of "notice and comment" rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

Regulations contained within FMPs are enforced through actions of the National Oceanic and Atmospheric Administration's Office of Law Enforcement, the United States Coast Guard, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the Magnuson-Stevens Act. These activities are being coordinated by the Council's Law Enforcement Advisory Panel and the Gulf States Marine Fisheries Commission's Law Enforcement Committee, which have developed joint enforcement agreements and cooperative enforcement programs (www.gsmfc.org).

The red snapper stock in the Gulf is classified as overfished, but no longer undergoing overfishing. A rebuilding plan for red snapper was first implemented under Amendment 1 (GMFMC 1989), and has undergone several revisions. The current rebuilding plan was established in Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007), and calls for rebuilding the stock to a level capable of supporting maximum sustainable yield on a continuing basis by 2032. Periodic adjustments to the ACL and other management measures needed to affect rebuilding are implemented through regulatory amendments.

3.6.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf States exercises legislative and regulatory authority over their respective state's natural resources through discrete administrative units. Although each agency is the primary administrative body with respect to the states' natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources. A more detailed description of each state's primary regulatory agency for marine resources is provided in Amendment 22 (GMFMC 2004b).

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 Action 1 – Allocation of Red Snapper

4.1.1 Direct and Indirect Effects on the Physical Environment

Sections 3.1, 3.2, and GMFMC (2004a, 2004c, and 2007) describe the physical environment and habitat used by red snapper. In summary, adult red snapper are found around low relief bottom structure, hard bottom, and artificial structures; eggs and larvae are pelagic; and juveniles are found associated with bottom inter-shelf habitat (Szedlmayer and Conti 1998) and prefer shell habitat over sand (Szedlmayer and Howe 1997). Adult red snapper are closely associated with artificial structures in the northern Gulf of Mexico (Gulf) (Szedlmayer and Shipp 1994; Shipp and Bortone 2009) and larger individuals have been found to use artificial habitats, but move further from the structure as they increase in size and based on the time of day (Topping and Szedlmayer 2011). In terms of red snapper fishing, most commercial red snapper fishermen use handlines (mostly bandit rigs and electric reels, occasionally rod-and-reel) with a small percentage (generally <5% annually) caught with bottom longlines (see section 3.1). Recreational red snapper fishing almost exclusively uses vertical-line gear, most frequently rod-and-reel (See section 3.1). The following describes the effects of common fishing gear on the physical environment.

Handline gear (bandit gear, rod-and-reel, and electric reels) used in fishing for reef fish is generally suspended over hard bottom because many managed reef fish species occur higher over this type of substrate than over sand or mud bottoms (GMFMC 2004a). Handline gear is less likely to contact the bottom than longlines, but still has the potential to snag and entangle bottom structures and cause tear-offs or abrasions (Barnette 2001). In using bandit gear, a weighted line is lowered to the bottom, and then the lead is raised slightly off the bottom (Siebenaler and Brady 1952). The gear is in direct contact with the bottom for only a short period of time. Barnette (2001) suggests that physical impacts may include entanglement and minor degradation of benthic species from line abrasion and the use of weights (sinkers). Commercial or recreational fishing with rod-and-reel also lays gear on the bottom. The terminal part of the gear is either lifted off the bottom like fishing with bandit gear, or left contacting the bottom. Sometimes the fishing line can become entangled on coral and hard bottom outcroppings. The subsequent algal growth can foul and eventually kill the underlying coral (Barnette 2001). Researchers conducting studies in the restricted fishing area at Madison-Swanson reported seeing lost fishing line on the bottom, much of which appeared to be fairly old and covered with growth (A. David, Southeast Fisheries Science Center, pers. comm.), a clear indication that bottom fishing has had an impact on the physical environment prior to fishing being prohibited in the area (GMFMC 2003).

Anchor damage is also associated with handline fishing vessels, particularly by the recreational sector where fishermen may repeatedly visit well marked fishing locations. Hamilton (2000) points out that "favorite" fishing areas such as reefs are targeted and revisited multiple times, particularly with the advent of global positioning technology. The cumulative effects of repeated anchoring could damage the hard bottom areas where fishing for red snapper occurs.

Bottom longline gear is deployed over hard bottom habitats using weights to keep the gear in direct contact with the bottom. Its potential for adverse impact is dependent on the type of habitat it is set on, the presence or absence of currents, and the behavior of fish after being hooked. In addition, this gear upon retrieval can abrade, snag, and dislodge smaller rocks, corals, and sessile invertebrates (Hamilton 2000; Barnette 2001). Direct underwater observations of longline gear in the Pacific halibut fishery by High (1998) noted that the gear could sweep across the bottom. Some halibut were observed pulling portions of longlines 15 to 20 feet over the bottom. Although the gear was observed in contact with or snagged on a variety of objects including coral, sturdy soft corals (e.g., gorgonians) usually appeared unharmed while stony corals often had portions broken off. However, in a different study where deployed bottom longline gear was directly observed (Atlantic tilefish fishery), no evidence of gear movement was documented, even when placed in strong currents (Grimes et al. 1982). This was attributed to anchors set at either end of the bottom longline as well as sash weights along the line to prevent movement. Based on these direct observations, it is logical to assume that bottom longline gear would have a minor impact on sandy or muddy habitat areas. However, due to the vertical relief that hardbottom and coral reef habitats provide, it would be expected that bottom longline gear may become entangled, resulting in potential negative impacts to habitat (Barnette 2001). Because bottom longlines are a minor gear type used in harvesting red snapper by the commercial sector, any effects to the physical environment by this gear as a result of this action would likely be minor.

The action would have no direct effect on the physical environment. This action could indirectly affect the physical environment if changes in allocation result in an increase or decrease in the amount of fishing gear used to harvest the respective commercial and recreational quotas. However, any effects under **Alternatives 2-9** would likely be minimal. One reason is the overall red snapper combined quotawould not be effected by this action. Thus any beneficial effects from reducing the commercial quota (reduced fishing effort) would likely be offset by adverse effects from increasing the recreational quota (increased fishing effort). Additionally, changes in overall commercial and recreational fishing effort is likely to be small because fishermen target other species besides red snapper. Thus, for example, an angler who could schedule additional red snapper fishing trips under an alternative that increases the recreational quota (more red snapper fishing days), could still take those fishing trips under a smaller quota, but the fishing trips would target some other species besides red snapper (e.g., gag). Likewise, a commercial fisherman who might not take a trip targeting red snapper because of less IFQ allocation based on a lower commercial quota, might schedule another trip targeting some other species such as vermilion snapper, which is not managed under an IFQ program.

The no action (**Alternative 1**) would continue the current allocation. **Alternatives 2-9** would reduce the commercial red snapper allocation and increase the recreational red snapper allocation. Assuming that commercial vessels in general are more efficient at catching red snapper due to vessel type, experience, and equipment, then a likely result of having greater recreational allocation could be an increase in overall red snapper effort as a result of lower recreational efficiency. Thus, **Alternative 6** that increases the recreational allocation the most (by >17% totaling 66.1-67.5%), would have the greatest indirect effect on the physical environment compared to **Alternative 1**, no action (49%). Moving this logic forward, then

Alternative 4 (59%) would have the next greatest effect, followed by **Alternative 5** (57.7-58.4%), **Alternative 9** (57.3-57.7%), **Alternative 7** (56.1-56.8%), **Alternative 3** (54%), **Alternative 2** (52%), and **Preferred Alternative 8** (51.4-51.6%) when compared to **Alternative 1**.

4.1.2 Direct and Indirect Effects on the Biological Environment

Direct and indirect effects from fishery management actions have been discussed in detail in Reef Fish Amendment 22 and Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2004b and 2007) and in several red snapper framework actions (GMFMC 2010, 2012a, 2013a) and are incorporated here by reference. Potential impacts of the 2010 Deepwater Horizon MC252 oil spill on the biological/ecological environment are discussed in Section 3.3 and the January 2011 Framework Action (GMFMC 2011c) and are also incorporated here by reference. These impacts may include recruitment failure and reduced fish health. Management actions that affect this environment mostly relate to the impacts of fishing on a species' population size, life history, and the role of the species within its habitat. Removal of fish from the population through fishing reduces the overall population size. Fishing gears have different selectivity patterns which refer to a fishing method's ability to target and capture organisms by size and species. This would include the size distribution of fish caught by the gear as well as the number of discards, mostly sublegal fish or fish caught during seasonal closures, and the mortality associated with releasing these fish.

Fishing can affect life history characteristics of reef fish such as growth and maturation rates. For example, Fischer et al. (2004) and Nieland et al. (2007) found that the average size-at-age of red snapper had declined and associated this trend with fishing pressure. Woods (2003) found that the size at maturity for Gulf red snapper had also declined and speculated this change may also have been due to increases in fishing effort. The reef fish fishery can also affect species outside the reef fish complex. Specifically, sea turtles have been observed to be directly affected by the longline component of the Gulf reef fish fishery. These effects occur when sea turtles interact with fishing gear and result in an incidental capture injury or mortality and are summarized in GMFMC (2009). However, for sea turtles and other listed species, the most recent biological/ecological opinion for the Reef Fish Fishery Management Plan concluded authorization of the Gulf reef fish fishery managed in the reef fish plan is not likely to jeopardize the continued existence of sea turtles, smalltooth sawfish, or table coral species (NMFS 2011a). In addition, the primary gear used by the recreational sector (hook-and-line) was classified in the 2015 List of Fisheries (79 FR 77919) as a Category III fishery with regard to marine mammal species, indicating this gear has little effect on these populations (see Section 3.3 for more information).

The action in this amendment is not expected to have any direct effects on the biological environment because the Council is not considering changes to the total quota or fishing gear. Therefore, any biological effects from these alternatives are expected to be indirect. Indirect effects from this action on the biological environment could occur if there are changes in the overall size frequency of fish caught by the reef fish fishery, total number of red snapper killed (landed or discarded dead) by either sector, any changes to the frequency or magnitude of any quota overages due to modifications to the red snapper allocation, or reductions in the stock's

spawning potential ratio (SPR) from differential fishing effort. Gear types used by the commercial and recreational sectors and their expected effects are discussed in Sections 3.1 and 4.1.1 of this document.

Selectivity

As mentioned in Sections 1.1 and 3.3, updated Marine Resource Information Program showed a shift in selectivity to larger, older fish by recreational fisherman[20]. Because **Alternatives 2-9** would increase the recreational allocation, this could increase the number of larger fish contributing to the overall catch. Older and larger females are the biggest egg producers (SEDAR 31 2013), so removal of these fish through fishing could negatively affect the stock recovery. However, this would also result in fewer fish being caught by this sector to reach its annual catch limit, thus somewhat mitigating any negative effects of catching larger fish. At this time it is unclear what the effect of this change in recreational selectivity would have on the stock and will likely be addressed in the next stock assessment.

Discards

Discards and discard mortality rates are described in Section 3.3. Overall, discard mortality rates are higher in the commercial sector than the recreational sector, in part because of depths fished and gear used to harvest red snapper. By shifting allocation from the commercial sector to the recreational sector (**Alternatives 2-9**), the number of recreational red snapper dead discards is likely to decrease because fish that would have been discarded would be kept under higher annual catch limits. However, even with a higher annual catch limit, the federal recreational season that would result from higher allocations are not expected to extend the federal season by many days. Using the 2014 daily federal catch rate of approximately 230,000 lbs whole weight (NMFS 2015), the additional 2.469 and 2.356 mp for 2016 and 2017 recreational annual catch limits, respectively, from **Alternative 6** that would shift the allocation the most, would only yield at most an additional 10-11 days to the federal season. Thus, the number of regulatory discards and their associated discard mortality from the closed season is not expected to substantially change.

For the commercial sector, the overall rates of dead discards by the commercial sector have been reduced since the implementation of the red snapper IFQ program (GMFMC 2013b). However, SEDAR 31 (2013) reported that in the western Gulf where commercial landings are higher, the discard mortality rate for vessels using handline gear without IFQ shares was greater than the discard mortality rate for handline vessels with IFQ shares (Table 3.1.1). Thus, in the western Gulf, a decrease in allocation could result in more trips without red snapper allocation and more dead discards. In the eastern Gulf, there did not seem to be a different discard mortality rate between commercial vessels with IFQ shares and those without (Table 3.1.1). However, if allocation is shifted away from the commercial sector under **Alternatives 2-9**, it is likely that the number of dead discards would increase as fish that might have been kept, must be discarded due

[20]The written report for the 2014 red snapper update assessment is in preparation. A version of the PowerPoint presentation describing the assessment was presented to the Council at its January 2015 meeting, and is available at the January 2015 briefing materials on the Council website (http://www.gulfcouncil.org) or by going directly to: http://www.gulfcouncil.org/council_meetings/Briefing%20Materials/BB-01-2015/B%20-%2014%20Red%20Snapper%202014%20Update%20Presentation.pdf

to less IFQ allocation. As the red snapper stock expands into the eastern Gulf, the incidence of red snapper being encountered should increase as catch rates increase (Boen and Keithly 2012). But because of the reduced commercial allocation and subsequent quota reduction from **Alternatives 2** through **9**, fewer red snapper could be kept and more fish would need to be discarded.

It should be noted that for both the commercial and recreational sectors, the reef fish fishery is a multispecies fishery. Therefore, if red snapper are not available for harvest due to season closures or lack of IFQ allocation, fishing effort will likely shift to other species rather than decline. Therefore, red snapper regulatory discards and associated discard mortality will likely continue regardless of which alternative is selected as preferred.

Quota overages

Quota overages can adversely affect red snapper by slowing the stock recovery. Changing allocations could increase the likelihood of overages if it becomes harder to monitor and control harvests. With the introduction of the IFQ program, no overages of the commercial annual catch limit have occurred and are not likely to occur in the near future. For the recreational sector, annual catch limit overages have occurred frequently in recent years and could adversely affect the stock's recovery if they continue (NMFS 2013d; SEDAR 31 2013). Recreational quota overages have occurred because of difficulties assessing past fishing patterns and projecting them into the future to estimate season length (NMFS 2013). However, to reduce the likelihood of quota overages, the projected recreational season is now based on the annual catch target (ACT) set 20% below the quota (GMFMC 2014b, NMFS2014). The use of the ACT appears to be beneficial for holding the recreational harvest to the annual catch limit. Harvest information for 2014 indicates the recreational annual catch limit was not exceeded; therefore, it is unlikely changing the red snapper allocation would result in overages[21].

Spawning potential ratio

As described in Section 3.3, analyses examining the effect of increasing the recreational allocation could allow the OFL, and consequently the ABC, to be increased[22]. However, the effects of increasing the ABC would have adverse effects on the eastern portion of the stock. The analyses indicated the SPR of the eastern part of the stock could decrease to as low as 4%. With an increase in the recreational annual catch limit as a result of the greater recreational allocation, fishing effort in the east, where most recreational fishing occurs, would increase. This would lead to an increased fraction of the eastern population to be removed and cause the eastern SPR to decline.

Conclusions

Given the discussion above, if the recreational annual catch limit were increased through reallocation from **Alternatives 2-9**, increasing the recreational allocation would likely increase

[21] National Marine Fisheries Service, Southeast Regional Office, 2014 Gulf of Mexico Recreational Landings and Annual Catch Limits. http://sero.nmfs.noaa.gov/sustainable_fisheries/acl_monitoring/recreational_historical/gulf_recreational_historical/2014/index.html

[22] Gulf of Mexico Fishery Management Council Standing and Special Scientific and Statistical Meeting Summary. May 20, 2015.

the number of larger fish being caught, decrease recreational discards, increase commercial discards, have little effect on the likelihood of annual catch limit overages, and decrease the SPR for the eastern portion of the red snapper stock. Based on the information discussed above, **Alternative 6** would be expected to have the greatest effect on the biological environment compared to **Alternative 1** (**no action**), because this alternative would result in the greatest recreational allocation (66.7% for 2016 and 66.1% for 2017). **Alternative 4** (59%) and **Alternative 5** (58.0% for 2016 and 57.7% for 2017) would be expected to have the next greatest effects (either beneficial or adverse) on the biological environment. **Alternative 9** (57.5%)**, Alternative 7** (56.4% for 2016 and 56.1% for 2017)**, Alternative 3** (54%), and **Alternative 2** (52%) are expected to have intermediate impacts. The allocation under **Preferred Alternative 8** (51.5%) is closest to the **Alternative 1** and so would have the least effect of **Alternatives 2-9**.

The relationships among species in marine ecosystems are complex and poorly understood, making the nature and magnitude of ecological effects difficult to predict with any accuracy. The most recent red snapper stock assessment (SEDAR 31 2013) indicated the stock is rebuilding. Consequently, it is possible that forage species and competitor species could decrease in abundance in response to an increase in red snapper abundance. This action, regardless of the alternative, should not affect the red snapper recovery, thus any effects on forage species and competitor species would not likely be different from no action. Changes in the bycatch of red snapper are not expected to directly affect other species in the ecosystem. Although birds, dolphins, and other predators may feed on red snapper discards, there is no evidence that any of these species rely on red snapper discards for food. Changes in the prosecution of the reef fish fishery are not expected from this action, so no additional effects to protected resources (see Section 3.3.1) are anticipated.

4.1.3 Direct and Indirect Effects on the Social Environment

Alternative 1 (**no action**) would retain the current sector allocations for red snapper and would have no impact upon the commercial sector as their allocation would remain the same. The shortened recreational fishing seasons over the past few years have been exacerbated by differential management between some states and their adjoining federal waters. This varied management has allowed for continued harvest, including when federal waters are closed, which then translates into shortened seasons because season length is based on total harvest in state and federal waters.

A direct result of the shortened seasons has been dissatisfaction with current management for the recreational sector. This dissatisfaction has, in part, prompted the Council to revisit the red snapper allocation to potentially provide some relief to the shortening seasons, which in turn has increased tension among the recreational and commercial sectors. While the red snapper stock has rebounded, the appearance of good year classes has resulted in an abundance of larger fish which has allowed the recreational quota to be caught faster, as each angler's bag limit weighs more and thus represents more of the quota. Without addressing the problem of shortened seasons, there will continue to be dissatisfaction with management and continued quota overages by the recreational sector, although new accountability measures have recently been adopted to reduce the likelihood of quota overages. Modifying the red snapper allocation could potentially provide some temporary relief to the shortened recreational fishing seasons. However, with the

2014 federal season only nine days long, allocating the total red snapper quota to the recreational sector would still allow less than one month of red snapper harvest in federal waters. Nevertheless, the scope of this action is to evaluate reallocation, rather than addressing the broader issues of managing the recreational harvest of red snapper.

Alternative methods of allowing for transfer of quota between the sectors, such as incentive-based mechanisms, rather than the regulatory-based alternatives provided in this amendment might avoid some of the disparities that occur with the regulatory approach used here, and have been recommended by the Socio-economic Scientific and Statistical Committee (SESSC). With the commercial sector already under an IFQ program, such incentive-based mechanisms would allow for trading of quota between the two sectors, thereby allowing market mechanisms to determine efficiency. Incentive-based approaches would more likely result in actual increases in efficiency, but would face similar concerns for social impacts resulting from unequal distributional effects (see Section 3.4). Reallocation of quota through the regulatory-based approaches in **Alternatives 2-9** would be the quickest manner of providing some additional fishing opportunities to the recreational sector; yet, the season is extended only nominally and would be matched by negative impacts in the commercial sector, as discussed below.

Because **Alternatives 2-9** all transfer a certain amount of quota from the commercial sector to the recreational sector, the types of effects on the social environment would be similar among the alternatives. The effects would vary in scope and strength relative to the amount of quota that is reallocated. It is difficult to quantify social effects because a quantitative social benefits model is not available. As a result, the discussion that follows will be qualitative in its approach and identify possible direct and indirect effects that might accrue from reallocation under the different alternatives. Most generally, the quality of social impacts differs between the sectors, in that a loss of commercial access to red snapper could affect the livelihoods of commercial fishermen, especially small-scale owner-operators, hired captains and crew who do not own red snapper shares, and the well-being of commercial communities. In addition, some negative effects would be expected for red snapper consumers if decreased commercial access is associated with decreased availability. For the recreational sector, the gains in recreational quota would provide additional recreational opportunities to retain red snapper.

Red snapper is an iconic Gulf species, and the issue of red snapper reallocation is affected by the conflict between the commercial and recreational sectors over rights to the resource. The commercial sector currently retains the majority share of the resource (51%), although for most years, the majority of landings have been made by the recreational sector. Compared with no action, under all the **Alternatives 2-9**, the recreational sector will assume the majority share, a benefit sought after by the recreational sector, regardless of the poundage corresponding to the selected reallocation. This is a primary and repeated theme in public comments submitted by private recreational anglers. A sector allocation is a policy designation of the rights to access, but the reallocation of red snapper also has socio-cultural significance as a symbol of the struggle over a highly sought after resource with the recreational sector now in the majority.

From a social perspective, the potential economic gains estimated in an economic efficiency analysis assume certain aspects of the economy are equal, which may not be the case. The distributional effects of how dollars lost and gained from reallocation move through the various

value chains and other targeted fisheries, including fishing communities and the larger Gulf coast economy, should be taken into consideration. While it might be expected that any net benefits from a purely economic efficiency standpoint should continue to provide net gains, there is concern that gains and losses may be experienced differently and appear with other types of analysis (Copes 1997). This point was made by the SEFSC as there are other aspects within the current economic and social climate that are not taken into consideration in the analysis. Some of the factors that might contribute to resulting impacts and how impacts are distributed through the economy include differential value chains, a sluggish economy, a high unemployment rate, the recovery from the recent Deepwater Horizon MC252 oil spill, different property rights structures, and the general differences in community well-being that currently exist.

Further, the net benefits estimated by the economic efficiency analysis ignore distributional impacts (Bromley 1977). Should net gains in economic efficiency be realized as a result of reallocation, there is no reason to expect that the gains or losses would be equally distributed among fishing communities. Jacob et al. (2013) found that when shifting allocation between recreational and commercial fishing communities, highly dependent fishing communities experienced greater positive or negative effects on well-being than those communities that were less dependent. Although this research was not specific to red snapper or the Gulf coast, it did look at reallocation and reinforces the idea that any shift may have unintended consequences not accounted for in an economic efficiency analysis (Appendix G).

Current measures of community well-being (Section 3.3) also suggest that commercial dependent fishing communities exhibit greater vulnerability than recreational-dependent fishing communities, in that more index thresholds are exceeded for commercially dependent communities than recreationally dependent communities (Figures 3.4.2.1 & 3.4.2.2). Of the commercially dependent communities discussed in Section 3.3, five exceed the social vulnerability threshold on all three measures and three exceed the thresholds for two social vulnerability measures. For the recreationally dependent communities discussed in Section 3.3, only one community exceeds the social vulnerability threshold for all three measures and three communities exceed at least two measures of social vulnerability. Again, these social vulnerability measures are not specific to red snapper but suggest the nature of differences among other parts of the economy outside of red snapper fishing. The communities that are experiencing higher social vulnerabilities may be less able to absorb negative social effects from a change in resource access resulting from reallocation due to having higher levels of poverty, unemployment, and a higher proportion of vulnerable populations. The losses to commercial fishing communities may be compounded because of increased vulnerabilities that are not captured in the economic efficiency analysis, as discussed above.

Reallocating 3% of the red snapper quota to the recreational sector (**Alternative 2**) would provide the recreational sector with a limited number of additional fishing days. With a larger shift in allocation of 10% (**Alternative 4**), the projected fishing season could possibly be extended further. However, these additional fishing opportunities for recreational fishing communities would not extend the season near the six months advocated by many anglers (https://docs.google.com/spreadsheet/ccc?key=0Atgbk2rxQkqhdHByby1ad0F0THZiMGtoVTdIVDJ6cWc#gid=0). Furthermore, assuming the daily rate of harvest will increase as the season becomes shorter (Figure 3.4.3), and the increasing proportion of the recreational quota caught during

extended state water seasons, estimations of additional fishing days may be over generous, as changes in effort or participation are likely for an open entry sector.

Conversely, the increase in fishing opportunities provided to the recreational sector from reallocation would correspond with negative impacts to the commercial sector by reducing their access to the red snapper resource. **Alternatives 2-9** will not increase the stability of red snapper fishing for the recreational sector but, these alternatives would be expected to trigger some instability in the IFQ market as a result of restructuring existing fishing privileges. Although the commercial harvest of red snapper has been open year round since inception of the IFQ program, a commercial fisherman's ability to harvest red snapper depends on the ability to acquire quota. The commercial sector consists of numerous participation roles that may incur differential impacts from this management action. For example, some captains own and fish from their own vessel, and other captains work vessels for owners, including dealers. Commercial red snapper allocation can cost upwards of 75% of ex-vessel price (GMFMC 2013b; Appendix G) for those who must purchase allocation from others. Although IFQ shares were initially distributed based on historical landings, since implementation of the program, red snapper IFQ shares have been bought by fishermen who did not initially receive them representing direct economic investment in the IFQ program. Because frustration has been expressed in public testimony by those opposed to the sale of red snapper quota allocation in the IFQ program, it must be noted that for every pound of allocation sold, another commercial fisherman paid to land that red snapper.[23]

One concern about reallocation under current management is that the quota has been increasing, but may not continue to do so in the future. If the quota decreases, the losses and benefits that accrue would be much different and could shift the direction of how those benefits accrue. Even with a stable quota, net benefits could change over time as other factors related to either sector or other parts of the economy can change.

The concerns discussed above highlight many of the issues that might be raised with this choice of reallocation alternatives. As mentioned earlier, the shortened seasons and quota overages occurring in the recreational sector suggest the need for a revision to current management. As discussed, other alternative management strategies have been suggested that include incentive-based mechanisms that would require a more complex management regime. The various reallocation alternatives under consideration may provide some temporary relief to a challenge in the recreational sector that needs a long-term solution.

Another aspect of reallocation is the effect on perceptions of management. Existing management has led to considerable dissatisfaction among the recreational sector. However, with a reallocation of quota from the commercial sector, considerable dissatisfaction and instability in commercial participants' confidence in the IFQ market would be expected to result, because there would be no mitigation to the commercial sector for the loss of access to red snapper quota. Although the efficiency analysis suggests potential net gains from a shift in allocation, all losses accrue to the commercial sector. Prior to implementation of the IFQ program for the commercial sector, there were many years during which commercial fishermen experienced similar

[23] In the IFQ program, 'shares' refer to a percentage of the entire commercial quota; shares may be bought and sold by any U.S. citizen. 'Allocation' refers to the pounds of red snapper represented by those shares, based on the current year's quota. Allocation may only be purchased and landed by a permitted commercial vessel.

dissatisfaction with management due to trip limits and shortened seasons that led to derby fishing (Figure 3.4.1). Doubtless, painful social impacts accompanied the transition to the incentive-based management regime, including reductions in participation; however, seven years later, commercial red snapper fishing has stabilized, both in terms of the season length (year round), prices, and avoiding quota overages. Nevertheless, the commercial red snapper IFQ program is still considered overcapitalized (GMFMC 2013b). A reallocation from the commercial quota would be expected to negatively affect the stability of the commercial sector in terms of long-term access to red snapper allocation and confidence in the IFQ program. These effects are different than would be expected from a quota decrease deemed necessary for biological concerns, which would also result in less quota availability, but would not be expected to negatively affect participants' confidence in the IFQ market and their ability to continue participating. Given the history of the commercial sector's derby seasons prior to the IFQ program's implementation, reallocating commercial quota to the recreational sector may be seen as unfair and create new tensions with management, as quota overages and shortened seasons would be expected to continue in the recreational sector.

Although the allocation is currently set at 51% commercial, 49% recreational, the proportion of actual landings by each sector has consistently departed from the established allocation (Tables 2.1.1 and 2.1.2). That is, since the allocation was established in 1990, in all but five years the recreational sector's annual landings have represented a larger proportion of total landings than their allocation. With a 3% reallocation, **Alternative 2** would be expected to result in the second least negative direct or indirect effects upon the commercial sector while providing fewer additional opportunities for the recreational sector to retain red snapper among **Alternatives 2-7, and 9**. With a 5% reallocation, **Alternative 3** would result in slightly more negative direct and indirect social effects upon the commercial sector compared with **Alternative 2**, assuming that any gains and losses move through all sectors proportionately in strength and scope. With a 10% reallocation, **Alternative 4** would provide greater fishing opportunities to the recreational sector, but also result in the greater negative direct and indirect social effects on the commercial sector. For the current quota, **Alternative 6** would result in the greatest quota increase for the recreational sector, and consequently, the greatest decrease for the commercial sector. **Alternative 6** has the potential to provide the greatest benefits to the recreational sector and the most adverse effects on the commercial sector, including social aspects of the IFQ program.

Given the progress of red snapper rebuilding, as evidenced by larger fish and quota increases, the preceding discussion largely focused on impacts assuming a stable or increasing quota. However, it is possible the quota may decrease in future years, for example, if recruitment declines. Under **Alternatives 2-4**, quota decreases would compound the problems of the commercial sector's loss of access to red snapper from reallocation. **Alternative 5** and **Alternative 6** propose reallocations only on any quota above 9.12 mp, and **Alternative 7** would reallocate only that portion of the quota above 10.0 mp. **Preferred Alternative 8** and **Alternative 9** reallocate portions of the quota linked to the MRIP calibration of recreational landings and to changes in size selectivity in the recreational sector. As a result, these alternatives (**Alternatives 5-9**) result in different sector allocations depending on the total amount of the red snapper quota.

By limiting reallocation of 75% of any quota over 9.12 mp to the recreational sector (**Alternative 5)**, no negative social effects on the commercial sector would occur when the quota is at or below 9.12 mp, because the sectors' proportions of the quota would remain the same as under **Alternative 1**. However, with a current 2015 quota of 14.30 mp, the potential increased benefits associated with the increased quota under **Alternative 5** to the recreational sector could be appreciable compared to **Alternative 1**. In turn, the commercial quota would be decreased by the same amount, and attending adverse impacts would result from decreased access to the red snapper resource. Yet, if the red snapper stock continues to rebuild, quota increases could benefit both sectors, but provide more additional quota to the recreational sector.

By allocating 100% of all quota above 9.12 mp to the recreational sector (**Alternative 6)**, the negative social effects to the commercial sector would be greater than under **Alternative 5**, but remain the same as **Alternative 1** when the quota is equal or less than 9.12 mp. Setting the baseline above which to reallocate at 10.0 mp, **Alternative 7** would reallocate a lesser amount of quota compared with **Alternative 5. Alternative 7** would therefore be expected to provide less potential benefits to the recreational sector relative to **Alternative 5.** However, the baseline is lower than the current quota (**Alternative 1**), meaning that adverse impacts would still be expected for the commercial sector.

With **Preferred Alternative 8** and **Alternative 9** the reallocation is based upon calibration of the MRIP catch estimates and changes in size selectivity that were factored into the new stock assessment which resulted in higher estimates for the stock ACL. The resulting increase to the annual catch limit from the calibration would be added to the recreational sector's quota in its entirety with **Preferred Alternative 8**. The change in allocation is averaged over the time periods from 2015 to2017 which results in 51.5% of the annual catch limit attributed to the recreational sector and 48.5% to the commercial sector. This reallocation scenario would shift the least amount away from the commercial sector except for **Alternative 1** and therefore have the least negative social effects to that sector, among **Alternatives 2-9**. By taking the changes in recreational selectivity and adding those gains to the increases from the calibration to the recreational sector in **Alternative 9**, the percentage shift of ACL to the recreational sector is greater than in **Alternatives 1, 2, 3, 7 and 8**. Therefore, the negative social effects which would be expected to accrue to the commercial sector from **Alternative 9** would also be expected to be greater than the negative effects resulting from those alternatives.

This section has primarily addressed the recreational sector as a whole; however, fishing opportunities are not distributed evenly Gulf-wide. Prior to 2014, three of the five Gulf States allowed some additional harvest of red snapper in their state waters when the retention of red snapper from federal waters was prohibited. In 2014, all five Gulf States allowed additional fishing days for red snapper in state waters. The result is fewer red snapper fishing opportunities for 1) all anglers in federal waters during the federal season, 2) all anglers in states with compatible regulations, and 3) federal for-hire vessels operating from states with incompatible regulations. It is unknown whether a reallocation decision will affect the practice of states adopting incompatible regulations, by either increasing compliance, or resulting in greater state regulatory inconsistency. Nevertheless, those states with incompatible regulations provide additional fishing opportunities for anglers in their state waters, which shortens the recreational fishing season for other anglers. For the 2014 red snapper fishing season, an estimated 2.04 mp

of the recreational red snapper quota was expected to be harvested in state waters outside of the federal season. This is approximately half of the 4.312 mp ACT implemented by emergency rule for the 2014 recreational red snapper season (NMFS 2014). Thus, it cannot be assumed that additional fishing opportunities provided through reallocation would benefit all recreational anglers through a longer federal season, as some portion of the quota would be expected to be landed in state waters outside of the federal season.

4.1.4 Direct and Indirect Effects on the Economic Environment

This action considers alternative reallocations of the red snapper quota between the recreational and the commercial sectors. The current partition of the resource grants 49 percent of the quota to the recreational sector and 51 percent to the commercial sector. Reallocation alternatives considered in this action vary the recreational share of the quota from 49 percent (**Alternative 1**) to 59 percent in **Alternative 4**. Conversely, the commercial share of the red snapper quota ranges from a minimum of 41 percent to a maximum of 51 percent for **Alternative 4** and **Alternative 1**, respectively. The commercial and recreational red snapper allocations, in pounds and percentage of the quota, are provided in Table 2.1.3.

Alternative 1 (no action) would maintain the current split of the red snapper quota between the commercial and recreational sectors (51% commercial and 49% recreational[24]). Therefore, direct economic effects are not expected to result from **Alternative 1** because changes to harvests or other customary uses of red snapper are not expected to result from the no action alternative. However, in a study evaluating the economic efficiency of red snapper allocation between the commercial and recreational sectors, Agar and Carter (2013, Appendix G) concluded that the existing allocation was not economically efficient. Based on this finding, the continued apportionment of red snapper resources according to the status quo allocation between the sectors could potentially be expected to result in indirect adverse economic effects that would stem from forgone opportunities to enhance economic efficiency and thus generate more economic benefits. Improvements in economic efficiency would increase the economic value derived from the red snapper resources if the current allocation is moved closer to the optimal allocation, which is unknown.

All remaining alternatives (**Alternatives 2-9**) considered in this amendment would increase the percentage of the red snapper quota allocated to the recreational sector (and decrease the commercial sector's share by an equivalent percentage). Therefore, the implementation of any one of these alternatives would be expected to result in economic losses to the commercial sector and potentially generate economic benefits for the recreational sector. For each reallocation alternative, the relative magnitude of the expected losses to the commercial sector and potential gains to the recreational sector would determine the net economic effects.

Alternatives 2, **3,** and **4** would add 3%, 5%, and 10% of the red snapper quota to the recreational allocation, respectively. Adjustments proposed in **Alternative 5** and **Alternative 6** would only reapportion quota amounts in excess of 9.12 mp and would either grant 75% of the amounts in excess of 9.12 mp (**Alternative 5**) or 100% of the amount in excess of 9.12 mp (**Alternative 6**)

[24] The status quo allocation was established in Amendment 1 (GMFMC, 1989) and was based on historical landings during the base period 1979-1987.

to the recreational sector. The status quo allocation ratio would apply if the quota were 9.12 mp or lower. **Alternative 7** would allocate 75% of quota amounts in excess of 10.0 mp to the recreational sector, and the remaining 25% to the commercial sector. The status quo allocation ratio would apply if the quota were 10.0 mp or lower. **Preferred Alternative 8** would allocate quota amounts attributable to the recalibration of MRIP catch estimates to the recreational sector. **Alternative 9** would allocate the quota amounts attributable to the recalibration of MRIP catch estimates and to the change in size selectivity to the recreational sector. Based on the red snapper quotas between 2015 and 2017, of all the alternatives considered in this amendment, **Alternative 6** would allocate the greatest percentage of the red snapper quota to the recreational sector (ranging from 66.1% in 2017 to 67.5% in 2015). For each alternative, red snapper allocations to the commercial and recreational sector (in pounds and in perentage of the quota) between 2015 and 2017 are provided in Table 2.1.4.

Resulting percentages allocated to each sector would be fixed in **Alternatives 2-4** but would fluctuate in **Alternative 5** and **Alternatives 6-7** based on the magnitude of the red snapper quota. **Alternative 5** and **Alternatives 6-7** could potentially result in the reallocation of large portions of the red snapper quota as the red snapper stock recovers and red snapper quotas are increased.

To account for changes due to MRIP recalibration or to the to the changes in size selectivity in the recreational sector, percentages of the red snapper quota allocated to each sector on an annual basis would fluctuate based on the quota and on the amounts attributed to the recalibration and to the selectivity changes. However, for **Preferred Alternative 8,** and **Alternative 9** the Council based the commercial and recreational allocations on the average percentages of the red snapper quota that would be allocated to each sector between 2015 and 2017.

Estimates for mean net economic benefit per pound of red snapper are provided by Agar and Carter (2013, Appendix G). Aggregate net benefits estimates are also provided in Appendix G. In general, for commercial fisheries managed under an IFQ program, e.g., red snapper, changes in economic value in the commercial sector could be evaluated using IFQ allocation prices because for well-functioning IFQ markets, allocation prices can be used to measure net economic benefits. The estimates of economic value to the commercial sector provided in Appendix G were derived following the approach suggested in Newell et al. (2005a and 2005b), which provide discussions on IFQ markets and on the determinants of allocation prices in individual fishing quota markets. For commercial red snapper harvesters, the mean net benefit per pound of red snapper is estimated to range from $2.75 to $2.95, for a commercial red snapper quota of 5.06 mp and 4.06 mp, respectively (Agar and Carter, 2013, Appendix G). These net benefit estimates are limited to red snapper IFQ participants, including harvesters and individuals/ entities who elect to lease their annual allocation. Producer surplus received by economic agents operating between the harvest and the final consumption of red snapper, e.g., dealers and retailers, were not included. The consumer surplus enjoyed by red snapper consumers was also not included in the estimates provided. However, if there are many substitutes for red snapper (e.g., other domestic or imported reef fish), then the surplus to the retail consumer would be expected to be small. For a discussion on substitution between red snapper and imports, see, for example, Norman-López (2009).

In the recreational sector, due to the absence of market transactions for recreationally-caught fish, the evaluation of economic benefits typically relies on non-market valuation techniques such as revealed preference methods or stated preference approaches. Following Carter and Liese (2012), estimates of economic value cited in this analysis were derived based on a 2003 stated preference choice experiment survey administered by the SEFSC. For recreational anglers who prefer to fish for red snapper, the estimated benefit of keeping 2 red snapper per trip instead of keeping 2 of the next preferred species is $142.11 (in 2012 dollars). On a per pound basis, this estimate corresponds to a mean net benefit of $11.21 per pound (based on an average weight of 6.34 lbs per red snapper). This estimate does not include producer surplus to the for-hire entities (charter and headboat owners and operators).

The economic effects expected to result from reallocations of the red snapper quota between the recreational and commercial sectors are usually evaluated based on aggregate (sum of recreational and commercial) changes in economic benefit relative to a baseline allocation (51% commercial and 49% recreational). Although it logically follows that the allocation of greater proportions of the red snapper quota to a given sector would be expected to result in greater economic benefits for that sector and lower economic benefits for the other sector, inferences about overall changes in economic efficiency are not provided here because it cannot be assumed that the resource allocation within each sector is efficient. The resource allocation within the commercial sector, which is managed under an IFQ system, would constitute a reasonable approximation for an efficient resource allocation (despite the limitations to the transfer of IFQ shares and allocation due, for example, to ownership caps). However, the open access management approach in the recreational sector cannot be conducive to an efficient allocation of red snapper within the recreational sector. As suggested by Holzer and McConnell (2014), by Abbott (2015) and in a recent report (OECD 2014), changes in net benefit estimates based on the generally accepted application of the equimarginal principle and associated inferences about economic efficiency are erroneous when each sector's quota is not efficiently allocated within the sector (i.e., quota is not assigned to those participants that have the highest willingness to pay for the resource). As a result, policy prescriptions based on such inferences would not be valid, and therefore, not useful. Therefore, it is not possible to provide policy-relevant rankings of the reallocation alternatives in this amendment based on the expected net benefits to the nation, i.e., the sum of the change in economic benefits to the recreational and commercial sectors. It can only be stated that greater percentages of the red snapper quota allocated to the recreational sector would be expected to increase economic benefits to the recreational sector and decrease benefits to the commercial sector.

In addition to the preceding discussion relative to the economic changes of the proposed alternatives, several other factors should be considered in the evaluation of the potential economic effects that would be expected to result. These factors include the Magnuson-Stevens Act mandates, discrepancies between Council-determined allocations and actual percentages of total red snapper landings attributed to each sector, potential impacts of the reduced availability of IFQ allocation, and considerations relative to which sectors may be better or worse off following a reallocation.

Provisions of the Magnuson-Stevens Act prohibit management measures, including allocation decisions, from having economic efficiency as their sole purpose (National Standard 5). Other

factors that must be considered include the promotion of conservation, the prevention from acquiring an excessive share, and the fairness and equity of the measure (National Standard 4). Relative to fairness and equity considerations, the Magnuson-Stevens Act also stipulates that, should the reallocation maximize overall benefits, fairness and equity does not mean that the status quo allocation should be maintained. A concise summary of the Magnuson-Stevens Act considerations as they relate to allocation is provided by Plummer et al (2012). The purpose and need for this proposed action indicates that economic efficiency does not constitute the sole purpose for this amendment. It would not be expected that the range of allocation shifts considered would grant any one sector, entity, or individual an excessive share of the resource. However, it is not clear that the proposed reallocation alternatives would promote conservation, in light of the repeated and sizeable harvest overages recorded for the recreational sector. It is noted that recently implemented accountability measures for the recreational sector, i.e., annual catch target (ACT) are expected to mitigate the occurrence and size of overages (GMFMC, 2014). Fairness and equity considerations are discussed in the social effects section (Section 4.1.3).

The frequency and magnitude of recorded overages have resulted in sizeable discrepancies between the Council-mandated allocation (51% commercial and 49% recreational) and the percentages of red snapper landings attributed to each sector (Figure 2.1.2). Given the Council's limited success in constraining landings to the mandated allocation, the relevance of reallocation efforts may be improved by management measures ensuring that a mandated apportionment would be reached and, as stated by the Socioeconomic SSC[25], by giving more consideration to management approaches that would strengthen the property rights structure within the recreational sector and foster the use of rights-based instruments.

The decrease in the amount of IFQ allocation available to IFQ participants following a reallocation could be expected to put upward pressure on the price of allocation. The model explaining the variability of allocation prices as a function of the commercial quota and other explanatory variables presented in Appendix G suggests that a one million pound drop in commercial red snapper quota would result in approximately a $0.20 increase in the per pound price of allocation. However, the extent to which the decreased availability of red snapper IFQ annual allocation would impact the behavior of participants in the market for IFQ allocation is not known. For example, the willingness to sell allocation could be reduced, especially in the Eastern gulf, possibly contributing to increased discards. Additional challenges to small IFQ shareholders who typically purchase allocation during the year and to potential new entrants could also result from the limited availability. All of the proposed alternatives to the status quo (**Alternative 1**) consider increases in the recreational red snapper quota. However, because none of the proposed alternatives would allow or require actual compensation to the commercial sector, recreational anglers would be better off and commercial fishermen worse off.

4.1.5 Direct and Indirect Effects on the Administrative Environment

The setting of an allocation is an administrative action and it will have direct effects on the

[25] For example, during its November 2013 meeting, the SESSC unanimously approved a motion to encourage the Council to look at first best i.e., incentive based mechanisms vs. second best, i.e. regulatory actions when making allocation decisions away from the current allocation.

administrative environment through additional rulemaking. Because **Alternative 1** (no-action) would not require rulemaking, it would have no effect on the administrative environment. The act of setting the allocation under **Alternatives 2-4** and **Preferred Alternative 8** and **Alternative 9** is a one-time event, and thus these alternatives would have an equivalent burden though the minor direct administrative impacts associated with rulemaking to implement the new allocations. **Alternatives 5 - 7** would require the allocations to be changed each time the red snapper allowable biological catch (ABC) is changed. Therefore, it will trigger an additional administrative burden to the Council and NMFS to set the revised allocations and associated quotas. Under these conditions, **Alternatives 5 - 7** would have the greatest negative direct effect on the administrative environment, followed by **Alternatives 2, 3, 4, Preferred Alternative 8** and **Alternative 9**, which would have similar effects. **Alternative 1** would have no effect.

Indirect effects of setting allocations require monitoring of the resultant quotas, enforcement of the quotas. However, regardless of which alternative is selected, these management and enforcement activities need to continue. Therefore, the indirect effects from each alternative should be similar.

4.2. Cumulative Effects Analysis (CEA)

As directed by NEPA, federal agencies are mandated to assess not only the indirect and direct impacts, but cumulative impacts of actions as well. NEPA defines a cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 C.F.R. 1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect is when the combined effects are greater than the sum of the individual effects.

This section uses an approach for assessing cumulative effects that was initially used in Amendment 26 to the Reef Fish FMP and is based upon guidance offered in CEQ (1997). The report outlines 11 items for consideration in drafting a CEA for a proposed action.

1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals.
2. Establish the geographic scope of the analysis.
3. Establish the timeframe for the analysis.
4. Identify the other actions affecting the resources, ecosystems, and human communities of concern.
5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.
6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.
7. Define a baseline condition for the resources, ecosystems, and human communities.
8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.
9. Determine the magnitude and significance of cumulative effects.

10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.
11. Monitor the cumulative effects of the selected alternative and adapt management.

Cumulative effects on the biophysical environment, socio-economic environment, and administrative environments are analyzed below.

1. Identify the significant cumulative effects issues associated with the proposed actions and define the assessment goals.

The CEQ cumulative effects guidance states this step is accomplished through three activities as follows:

I. The direct and indirect effects of the proposed actions (Section 4.1);
II. Which resources, ecosystems, and human communities are affected (Section 3 and Appendix C); and
III. Which effects are important from a cumulative effects perspective (information revealed in this CEA).

2. Establish the geographic scope of the analysis.

The primary effects of the actions in this amendment would affect the social, economic, and administrative environments of the Gulf. The physical and biological/ecological environments would be less affected as described in Section 4.1.

The geographic scope affected by these actions is described in detail in Reef Fish Amendments 22 and 27 (GMFMC 2004c and 2007) and pertains directly to the Gulf. Red snapper are one of the most sought after species in the reef fish fishery. This species occurs on the continental shelves of the Gulf and the U. S. Atlantic coast to Cape Hatteras, N. C. (Moran 1988). Eggs and larvae are pelagic and juveniles are found associated with bottom features or bare bottom. In the Gulf, adults are found in submarine gullies and depressions; natural vertical relief structures such as coral reefs, rock outcroppings, and gravel bottoms; and artificial structures such as oilrigs and artificial reefs (GMFMC 2004c).

Commercial reef fish vessels and dealers are primarily found in Gulf States (GMFMC 2008b, 2013b). Based on mailing addresses or home ports given to the Southeast Regional Office (SERO) as of January 6, 2014,[26] 100% of historical charter captain reef fish, 97% of for-hire reef fish, 98.5% of commercial reef fish permitted vessels, and 100% of vessels with reef fish longline endorsements are found in Gulf States. For permitted reef fish dealers, 94.5 percent are found in Gulf States. All dealers who are able to process IFQ transactions are located in Gulf States (Section 3.5.1.3). With respect to eligible red snapper individual fishing quota shareholders actually holding red snapper shares, 98% have mailing addresses in Gulf States (GMFMC 2013b). According to NMFS (2013b), the Gulf accounted for approximately 35% of trips and 42% of the catch in 2012 for U. S. marine recreational fishing trips by approximately 3.1 million Gulf anglers catching, with visitors, 161 million fish.

[26]http://sero.nmfs.noaa.gov/operations_management_information_services/constituency_services_branch/freedom_of_information_act/common_foia/index.html

3. Establish the timeframe for the analysis

The timeframe for this analysis is 1984 through 2017. Red snapper have been managed in the Gulf since the implementation of the Reef Fish Fishery Management Plan in **1984** which put in place a 13-inch minimum size limit total length (TL). The red snapper stock has been periodically assessed since 1988. The 2013 SEDAR 31 red snapper stock assessment was the last benchmark assessment and this assessement was updated in 2014. The 2014 assessment update used the same methodology as the 2013 SEDAR 31 assessment and included reconstructed data for analysis for the commercial sector from 1872 through 1962 (Porch et al. 2004), data from 1963-2011 for commercial landings, and data from 1981-2013 for recreational landings (calibrated MRIP) with provisional 2014 landings. In addition, catch effort for the Gulf shrimp fishery (SEDAR 31 2013), including reconstructed data from 1948-1972 (Porch and Turner 2004), was used to estimate juvenile red snapper discards from this fishery. Based on projected harvests from the assessment, the Council set red snapper quotas through **2017**.

The following is a list of reasonably foreseeable future management actions. These are described in more detail in Step 4.

- The next assessment for red snapper through SEDAR is an update scheduled to occur in **2017** as a standard assessment. Other reef fish species scheduled for assessments include: red grouper, vermilion snapper, mutton snapper, gray triggerfish, goliath grouper, and black grouper in 2015; and gag, greater amberjack, and data poor stocks in 2016; and gray snapper, scamp, yellowedge grouper, red snapper, and yellowtail snapper in 2017.

- The Council is currently developing several actions that will affect the reef fish fishery. Actions affecting red snapper include: Amendment 36 (IFQ program revision), Amendment 39 (red snapper regional management), and a generic minimum stock size threshold for low natural mortality stocks amendment. In addition, the Council is working on reef fish actions that update ACLs with new MRIP numbers, look at gag regional management, and require electronic reporting for charter boats. These actions are described in more detail in Step 4 of this CEA.

4. Identify the other actions affecting the resources, ecosystems, and human communities of concern.

a. Past actions affecting red snapper fishing are summarized in Sections 1.4 and 3.1. The following list identifies more recent actions (Note actions taken prior to Amendment 32, the last EIS done for the Reef Fish FMP are described in detail in that amendment (GMFMC 2011b) and are incorporated here by reference).

- The following are past actions are specific to red snapper:
- In January 2011, the Council submitted a framework action (GMFMC 2011c) to NMFS to increase the red snapper total allowable catch to 7.185 mp, with a 3.521 mp recreational quota and a 3.664 mp commercial quota. The final rule from this action

established a 48-day recreational red snapper season was June 1 through July 18.

- On August 12, 2011, NMFS published an emergency rule that, in part, increased the recreational red snapper quota by 345,000 pounds for the 2011 fishing year and provided the agency with the authority to reopen the recreational red snapper season later in the year, if the recreational quota had not been filled by the July 19 closing date. However, in August of that year, based on headboat data plus charter boat and private recreational landings through June, NMFS calculated that 80% of the recreational quota had been caught. With the addition of July landings data plus Texas survey data, NMFS estimated that 4.4 to 4.8 mp were caught, well above the 3.865 mp quota. Thus, no unused quota was available to reopen the recreational fishing season.
- On May 30, 2012, NMFS published a final rule to implement a framework action submitted by the Council to increase the commercial and recreational quotas and establish the 2012 recreational red snapper fishing season (GMFMC 2012a). The recreational season opened on June 1 through July 11. However, the north-central Gulf experienced extended severe weather during the first 26 days of the 2012 recreational red snapper fishing season, including Tropical Storm Debby. Because of the severe tropical weather, the season was extended by six days and closed on July 17.
- On May 29, 2013, NMFS published a final rule to implement a framework action submitted by the Council to increase the commercial and recreational quotas (GMFMC 2013c). The combined quotas were raised from 8.080 million pounds whole weight to 8.460 lbs whole weight. The recreational fishing season was set differently for waters off different states because of non-compatible regulations. However, a federal court ruled against different seasons, so the season for federal waters was from June 1 through July 5. Later in 2013, NMFS approved a framework action (GMFMC 2013a) to increase the combined quotas from 8.46 mp to 11 mp. This allowed an additional recreational fishing season from October 1 through October 15.
- An exempted fishing permit was given to the Gulf of Mexico Headboat Collaborative Pilot program that began on January 1, 2014. NMFS authorized the 2-year pilot program to assess the viability of an allocation-based management strategy for achieving conservation and economic goals more effectively than current management. The Headboat Collaborative was allocated a portion of the red snapper and gag recreational quotas based on historical landings data and participating headboats are able to use the allotted quota to harvest red snapper and gag outside the normal recreational fishing seasons.
- In response to a decision by the U.S. District Court for the District of Columbia (Court) in Guindon v. Pritzker, 2014 WL 1274076 (D.D.C. Mar. 26, 2014), NMFS took emergency action May 15, 2014 (79 FR 27768) to address recent recreational red snapper quota overages. At their April 2014 meeting, the Council requested an emergency rule to implement an in-season accountability measure for the recreational harvest of red snapper in the Gulf that would apply to the 2014 season that opened on June 1, 2014. The action set an ACT equal to 80% of the 5.390 mp quota (ACT = 4.312 mp). The resultant 9-day season was based on the ACT and has only a 15% probability of exceeding the quota.
- A framework action (GMFMC 2014b)was submitted by the Council to establish a recreational red snapper ACT and overage adjustment as accountability measures for the recreational sector. A final rule was published on March 19,2015.

- On April 22, 2015, the final rule for Amendment 40 was published. Amendment 40 (GMFMC 2014a) contained measures to establish two components within the recreational sector (federal for-hire and private angling) with a three-year sunset provision; allocated the recreational red snapper quota between the components; and established separate season closure provisions for the federal for-hire component and the private angling component.
- On April 22, 2015, a final rule for a framework action that sets the recreational and commercial quotas was published. The purpose of the action was to is to revise the quotas for commercial and recreational harvest of red snapper in the Gulf consistent with the red snapper rebuilding plan and allow each sector to harvest the additional quota.

b. The following are recent reef fish actions not summarized in Section 1.4 or 3.1 but are important to the reef fish fishery in general (Note actions taken prior to Amendment 32 are described in detail in that amendment (GMFMC 2011b) and incorporated here by reference).

- A rule effective April 2, 2012, that adjusted the 2012 commercial quota for greater amberjack, based on final 2011 landings data. For 2011, the commercial quota was exceeded by 265,562 pounds. Therefore, NMFS adjust the 2012 commercial quota to account for the overage resulting in a quota of 237,438 pounds.
- A temporary rule effective May 14, 2012, reduced the gray triggerfish annual catch limits and commercial and recreational annual catch targets. The temporary rule was put in place to reduce overfishing while the Council worked on long-term measures to end overfishing and rebuild the stock in Amendment 37.
- A framework action effective on November 19, 2012, eliminated the earned income qualification requirement for the renewal of Gulf commercial reef fish permits and increased the maximum number of crew members for dual-permitted (commercial and charter) vessels. The Council determined the existing earned income requirement in the reef fish fishery is no longer necessary and relaxing the number of crew on dual-permitted vessels increased the safety on commercial trips, particularly for commercial spear fishermen.
- Amendment 38 (GMFMC 2012c), effective March 1, 2013, allows NMFS to shorten the season for gag and red grouper if landings exceeded the catch limit in the previous year. The amendment also changed the trigger method for recreational accountability measures to an annual comparison of landings to the catch limit rather than using a three-year moving average. Finally, the amendment allows the establishment or modification of accountability measures through the faster framework procedure rather than through slower plan amendments.
- Amendment 37 (GMFMC 2012b), rulemaking effective June 10, 2013, was developed to end overfishing of gray triggerfish and rebuild the gray triggerfish stock. The amendment adjusted the commercial and recreational gray triggerfish annual catch limits and annual catch targets, established a 12-fish commercial gray triggerfish trip limit and a 2-fish recreational daily bag limit, established an annual fishing season closure from June 1 through July 31 for the commercial and recreational sectors, and established an overage adjustment for the recreational sector.

- A framework action effective July 5, 2013, adjusted the recreational gag season to July 1 through December 3, 2013, the time projected to harvest the recreational annual catch target of 1.287 mp. The framework action also restricted the geographical extent of the fixed February 1 through March 31 shallow-water grouper closed season to apply only to waters seaward of the 20-fathom boundary. This allows grouper fishing to occur year-round while providing some protection to species that spawn during February and March.
- A framework action effective September 3, 2013, set a 10-vermilion snapper bag limit within the 20-fish aggregate reef fish bag limit as a precautionary measure to reduce the chance of overfishing for this species. The action also increased the Gulf yellowtail snapper annual catch limit from 725,000 pounds to 901,125 pounds based on a recent stock assessment. Finally, the action eliminated the requirement to use venting tools when fishing for reef fish as 1) some scientific studies have questioned the usefulness of venting tools in preventing barotrauma in fish and 2) the action would give more flexibility to fishermen on when to vent or to use some other device like fish descenders.
- A framework action effective August 30, 2013, simplified for-hire permit renewals and transfers as well as allow more flexibility to the for-hire industry in how they use their vessels.
- Accountability measures for red grouper and gray triggerfish were implemented. For red grouper recreational fishing, the bag limit was reduced from four to three fish on May 5, 2014, and a season closure was projected for September 16, 2014. For gray triggerfish, the recreational season was closed on May 1, 2014.

c. The following are reasonably foreseeable future actions (RFFA) important to red snapper and the reef fish fishery in general[27].

- The Council is currently developing the following actions for red snapper.
    - Amendment 36 would revise the IFQ program based on recommendations from the red snapper IFQ program. These recommendations would be based on a review of the program completed in 2013 (GMFMC 2013b).
    - Amendment 39 would allow regional management of red snapper for the recreational sector. This regional management could be set at the state level or be based on broader regions (e.g., eastern and western Gulf).
    - A reef fish amendment (unnumbered) addressing the minimum stock size threshold (MSST) for stocks with low natural mortality rates. The purpose of the amendment is to set MSST for reef fish stocks taking into consideration natural mortality rates, and to establish MSST for all stocks in the reef fish fishery management unit.
    - A framework action to withhold a portion of the red snapper 2016 commercial quota equivalent to the difference between the current 2016 quota and the 2016 quota that would result from Amendment 28. This action would allow the disbursement of 2016 IFQ allocation to IFQ shareholders as well as allow the 2016 commercial quota reduction from Amendment 28 to be implemented.
- The Council is working on other reef fish actions. These are as follow:

[27] Information on these developing actions can be found on the Council's website at www.gulfcouncil.org.

- A framework action to update ACLs with new MRIP numbers for grouper and tilefish stocks managed under IFQ programs. The action proposes to update ACLs developed in the Generic ACL/AM Amendment that used MRFSS landings data with the new MRIP landing estimates.
- An abbreviated framework action for definition & intent of for-hire fishing in the EEZ.
- An amendment for regional management for the recreational harvest of gag to provide greater flexibility in regionally managing this species.
- An amendment to require electronic reporting for charter boats to improve the quality and timeliness of landings data for this sector.

d. The following are non-FMP actions which can influence the reef fish fishery.

In addition, Amendment 32 (GMFMC 2011a) discussed in detail a 2005 red tide event on the west-Florida shelf and the resultant oil spill from the explosion on the Deepwater Horizon MC252 oil rig. The red tide event may have affected reef fish, including red snapper populations. It has only been in the last 10 years that mortalities of higher vertebrates have been indisputably demonstrated to be due to acute red tide blooms and their brevetoxins (Landsberg et al. 2009). The extent of this event and possible effects of fish community structure has been described in Gannon et al. (2009).

Millions of barrels of oil were released into the Gulf from the Deepwater Horizon MC252 event (see http://response.restoration.noaa.gov/deepwaterhorizon). The effects on the environment on reef fish and the reef fish fisheries may not be known for several years when affected year classes of larval and juvenile fish enter the adult spawning population orfishery. For red snapper, this occurs at approximately 3 years of age, so a year class failure in 2010 may not be detected in the spawning populations or by harvesters of red snapper until 2013 at the earliest. The results of the studies detecting these impacts on recruitment should be available soon and will be taken into consideration in the next SEDAR assessment. In addition to impacts on recruitment, adult reef fish may also have been negatively affected by the oil spill. For example, Weisberg et al. (2014) suggested the hydrocarbons associated with Deepwater Horizon MC252 oil spill did transit onto the Florida shelf and may be associated with the occurrences of reef fish (including red snapper) with lesions and other deformities. The overall impact of the oil spill may not be realized for quite some time and study results are just now becoming available.

There is a large and growing body of literature on past, present, and future impacts of global climate change induced by human activities (Kennedy et al. 2002). Some of the likely effects commonly mentioned in relation to marine resources are sea level rise, ocean acidification, coral bleaching, increased frequency of severe weather events, and change in air and water temperatures (Kennedy et al. 2002; Osgood 2008). The Environmental Protection Agency's climate change Web page provides basic background information on these and other measured or anticipated effects. In addition, the Intergovernmental Panel on Climate Change has numerous reports addressing its assessments of climate change (http://www.ipcc.ch/publications_and_data/publications_and_data.shtml). Additional reports are provided on the Global Climate Change website http://climate.nasa.gov/scientific-consensus. NOAA's Climate Change Web Portal (http://www.esrl.noaa.gov/psd/ipcc/ocn/) indicates the

average sea surface temperature in the Gulf will increase by 1.2-1.4ºC for 2006-2055 compared to the average over the years 1956-2005.

Global climate changes could affect Gulf fisheries; however, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (Kennedy et al. 2002; Osgood 2008). An area of low oxygen, known as the dead zone, forms in the northern Gulf each summer, and has been increasing in recent years (see Section 3.3). Climate change may contribute to this spread by increasing rainfall that brings allochthonous materials and runoff from agricultural lands by rivers to the Gulf increasing nutrient inputs. This increased nutrient load causes algal blooms that, when decomposing, reduce oxygen in the water (Needham et al. 2012; Kennedy et al. 2002). It is unclear how climate change would affect reef fishes and likely would affect species differently. Climate change can affect factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. Burton (2008) speculated climate change could cause shifts in spawning seasons, changes in migration patterns, and changes to basic life history parameters such as growth rates. The OceanAdapt model (http://oceanadapt.rutgers.edu/regional_data/) shows that for red snapper, although there is little change in latitudinal distribution from 1985-2013, there does appear to be a distributional trend towards deeper water later in the 1985-2013 time series. In addition, the distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Hollowed et al. (2013) provided a review of projected effects of climate change on the marine fisheries and dependent communities. Integrating the potential effects of climate change into the fisheries assessment is currently difficult due to the time scale differences (Hollowed et al. 2013). The fisheries stock assessments rarely project through a time span that would include detectable climate change effects. Climate change may significantly affect Gulf reef fish species in the future, but the level and time frame of these effects cannot be quantified at this time. Actions from this amendment are not expected to significantly contribute to climate change through the increase or decrease in the carbon footprint from fishing.

5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.

This step should identify the trends, existing conditions, and the ability to withstand stresses of the environmental components. According to the CEQ guidance describing stress factors, there are two types of information needed. The first are the socioeconomic driving variables identifying the types, distribution, and intensity of key social and economic activities within the region. The second are the indicators of stress on specific resources, ecosystems, and communities.

Reef Fish Fishery

Data used to monitor commercial reef fish effort includes the number of vessels with landings, the number of trips taken, and trip duration. Declines in effort may be a signal of stress within the fishery. For the red snapper component of the commercial sector, the number of vessels and trips did decline after the red snapper IFQ program was first implemented. However, the number of vessels and trips with red snapper landings have increased from 2007 to 2012 (GMFMC 2013b). These trends are described in Sections 3.1, 5.0, 6.0 and in GMFMC (2013b). The commercial IFQ program recently underwent a 5-year review (GMFMC 2013b). The stated goals of this program, implemented through Amendment 26 (GMFMC 2006) were to reduce overcapacity and eliminate problems associated with overcapacity. The review found the program was moderately to highly successful in meeting the program goals; however, further improvements were identified regarding overcapacity, discard mortality price reporting, and social and community impacts. Therefore, the red snapper component of the commercial sector does not seem to be stressed.

Within the commercial reef fish sector as a whole, the number of commercial vessels has been declining as evidenced by the number of permits (Table 4.2.1). The number of permits has declined from 1,099 in 2008 to 882 in 2014 and the number landing at least one pound of reef fish has declined from 681 to 406 over the same time period. Although this could be an indicator of stress in the fishery, the commercial sector has undergone several changes in the past few years with the IFQ programs for red snapper, grouper, and tilefish. Given that a primary goal of these programs is to reduce overcapacity, the reduction in permits may just reflect this expected change.

Table 4.2.1. Number of Gulf of Mexico reef fish commercial (landing at least one pound of reef fish), for-hire, and historical captain permits by year.*

Sector	Year						
	2008	2009	2010	2011	2012	2013	2014*
Commercial	1099 (681)	998 (696)	969 (579)	952 (561)	917 (558)	895(523)	882(406)
For-hire	1458	1417	1385	1353	1336	1323	1310
Historical captain	61	56	47	43	42	40	35

Source: Southeast Regional Office, Limited Access Permit Program Branch.
*2014 landings are not complete

Table 4.2.2. Number of Gulf of Mexico reef fish commercial trips catching at least one pound of reef fish and the number of offshore angler trips for the charter and private angler components of the reef fish recreational sector* for the years 2008-2013.

Sector	Year					
	2008	2009	2010	2011	2012	2013
Commercial	8,081	8,177	5,991	6,541	6,647	6,180
Charter	351,098	304,258	212,358	286,263	347,126	412,325
Private angler	1,310,025	1,025,917	658,068	598,386	769,437	1,622,302

Sources: Commercial trip data from the Southeast Regional Office, Limited Access Permit Program Branch and recreational angler trip data from NOAA Office of Science and Technology's Recreational Fisheries Statistics web page at https://www.st.nmfs.noaa.gov/recreational-fisheries/index.
*Includes all trips where reef fish species were harvested or released. Texas information unavailable.

Social and economic characteristics of recreational anglers are collected periodically as an add-on survey to MRIP. Data used to monitor recreational reef fish effort in the sector primarily comes from MRIP and includes the number of trips and number of catch trips. Declines in effort may be a signal of stress within the sector. Private and charter fishing modes accounted for most of red snapper target trips, with the private angler mode the most common mode (Table 3.5.2.1.2), and Florida has the highest landings among the states (Table 3.5.2.1.1). For red snapper, changes in angler trips across states between 2010 and 2013 do not appear to show this segment of the fishery is stressed. Both targeted angler trips and trips that caught red snapper by the sector were high in 2008 and 2009 before declining in 2010 and 2011 (Table 4.2.2). The low harvest in 2010 was likely due to the Deepwater Horizon MC252 oil spill when large areas of the northern Gulf were closed to fishing. Since 2010 and 2011, the number of annual angler trips has increased for the charter and private angler modes such that the number of trips in 2013 has exceeded 2008 and 2009 levels (Table 4.2.2).

For the reef fish recreational sector, the number of angler trips in offshore waters (Table 4.2.2; used as a proxy for recreational reef fish fishing) and on headboats (Table 3.5.2.1.3) show a similar trend as noted above for recreational red snapper fishing with a low in 2010 followed by an increase in trips in 2012 - 2014. This suggests the sector is recovering from the 2010 Deepwater Horizon MC252 oil spill. Within the for-hire component, the number of for-hire and historical captain permitted vessels has declined from 2008 to 2014 (Table 4.2.1; 1458 to 1310 permits and 61 to 35 permits, respectively) and could be viewed as an indicator of stress. However, the number of offshore trips by the charter component has increased above 2008 and 2009 values suggesting economic conditions for this component are improving. In addition, the establishment of a federal for-hire component (Amendment 40) is expected to benefit for-hire fishermen with federally permitted reef fish vessels as they will be fishing under their own quota rather than the recreational quota as a whole.

At this time, climate change does not appear to be a stressor on the reef fish fishey. However, it could be in the future. The National Ocean Service (2011) indicated that 59% of the Gulf coast shoreline is vulnerable to sea level rise. This means coastal communities that support this fishery could be impacted in the future from higher storm surges and other factors associated with sea level rise. These communities do appear to be somewhat resilient given their ability to recover

after the 2004 and 2005 hurricane seasons as well as from the Deepwater Horizon MC252 oil spill (see step 4).

Red Snapper

Major stresses to the red snapper stock have primarily come from overfishing, which has been occurring at least since the first stock assessment in 1988 and overfishing only recently ended. It is likely that quota overruns by both commercial and recreational sectors have slowed the recovery of the stock. Trends in landings and the status of red snapper stock are based on NMFS and SEDAR stock assessments (summarized in Sections 3.1 and 3.3) and incorporated here by reference. The most recent stock assessment indicates the stock is continuing to rebuild. It is likely the red snapper stock was adversely affected by the Deepwater Horizon MC252 oil spill in 2010; however, these effects are only just being realized (see step 4d). A recommendation in the 2013 stock assessment (SEDAR 31 2013) is that future assessments of Gulf red snapper should be conducted with the explicit goal of attempting to model any enduring oil spill effects and their effect on the stock. At this point, it is unclear if and how climate change is affecting red snapper stocks. Burton (2008) speculated climate change could cause shifts in spawning seasons, changes in migration patterns, and changes to basic life history parameters such as growth rates in Gulf fish stocks, but changes to such patterns have not been observed for red snapper.

Ecosystem

With respect to stresses to the ecosystem from actions in this amendment, changes in the red snapper allocation are not likely to create additional stress. Handline gear, the primary gear used by the fishery, and longlines can damage habitat through snagging or entanglement; however, as described in Section 4.1.1, these impacts are minimal. Changes in the population size structure as a result of shifting red snapper fishing selectivities and increases in stock abundance could lead to changes in the abundance of other reef fish species that compete with red snapper for shelter and food. Predators of red snapper could increase if red snapper abundance is increased, while species competing for similar resources as red snapper could potentially decrease in abundance if food and/or shelter are less available. Efforts to model these interactions are still ongoing [e.g., Ecopath (Walters et al. 2006) and Atlantis), and so predicting possible stresses on the ecosystem in a meaningful way is not possible at this time. As described in Part 4d of this cumulative effects analysis, the Deepwater Horizon MC252 incident has affected more than one-third of the Gulf area from western Louisiana east to the panhandle of Florida and south to the Campeche Bank in Mexico. The impacts of the oil spill on the physical and biological environments are expected to be significant and may be long-term. Stressors to the ecosystem could include such factors as year-class failures and damage to reef fish EFH. Climate change may also be a stressor to the ecosystem, but is poorly understood. Hollowed et al. (2013) outlined the difficulties in understanding the effects of climate change and developed a conceptual pathway of direct and indirect effects of climate change and other anthropogenic factors on marine ecosystems. They suggest integrated interdisciplinary research teams be used better understand the effects.

Administrative Environment

The stresses to the administrative environment from these actions would likely focus on the setting of annual quotas, ACTs, as well as monitoring landings to determine if AMs have been triggered. However, these stresses are not expected to significantly differ from the current

stresses. In 2013, several states established recreational red snapper regulations that were inconsistent with federal regulations and by 2014, all Gulf states had extended their seasons beyond the federal season in state waters. This caused additional stress on the administrative environment requiring additional regulations, analysis, presence of law enforcement, and increased confusion among the fishing public. The actions in this amendment would allow regions to adjust regulations to meet their regional needs while maintaining consistency with the FMP and likely reduce stress in this environment. It is unknown whether the regions would be able to constrain harvest to the quota. However, with the current federal management, the recreational sector has exceeded the allocation in 14 of 22 years in which an allocation was specified. The stock could likely withstand some overages without jeopardizing the rebuilding plan; however, continuous overages could result in a change of the stock status. However, the regions have indicated they intend to establish new monitoring procedures, which could improve the estimations for landings, but the SEFSC would need to review the sampling designs and data to insure compatibility with the current methods.

6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.

This section examines whether resources, ecosystems, and human communities are approaching conditions where additional stresses could have an important cumulative effect beyond any current plan, regulatory, or sustainability threshold (CEQ 1997). Sustainability thresholds can be identified for some resources, which are levels of impact beyond which the resources cannot be sustained in a stable state. Other thresholds are established through numerical standards, qualitative standards, or management goals. The CEA should address whether thresholds could be exceeded because of the contribution of the proposed actions to other cumulative activities affecting resources.

Reef Fish Fishery

As indicated above, both commercial and for-hire fisheries are subject to stress as a result of increases in fishing costs, increases in harvesting efficiency, more restrictive regulations (particularly for red snapper), and changes in the stock status of certain species (effort shifting). Reductions in dollars generated by these entities would likely be felt in the fishery infrastructure. For the reef fish fishery, an indicator of stress would be a decline in the number of permitted vessels. For the commercial sector, the number of vessels and trips landing red snapper initially declined after the IFQ program went into effect in 2007 (419 vessels and 4,714 trips in 2006 compared to 319 vessels and 2,578 trips in 2007; GMFMC 2013b). However, the number of vessels and trips landing red snapper has increased in recent years (368 vessels and 3,389 trips in 2011) demonstrating that conditions in commercial red snapper sector are improving. GMFMC (2013b) also cites other factors such as pricing, fleet and effort consolidation, and market conditions that also support an improved socioeconomic environment. As mentioned in Step 5 of this CEA, the number of vessels in the commercial sector has declined (Table 4.2.1); however, with the shift towards IFQ management, it is difficult to determine if this reflects stress in the sector or is a result of overcapacity reduction - an expected result of IFQ management. Five-year reviews similar to the one conducted for red snapper are planned for the grouper and tilefish IFQ programs after the 2014 fishing year (year 5 of the) is complete.

Analyses conducted on the effects of a limited access program for for-hire vessels indicated operations were generally profitable (GMFMC 2005a). However, testimony from for-hire operators in light of recent red snapper regulations have suggested some for-hire operators may go out of business, particularly in the northeastern Gulf. This may be reflected in the declines in the numbers of permitted vessels shown in Table 4.2.2. However, the proposed Action would increase the recreational allocation and support more red snapper fishing days. As a result, more red snapper trips would likely be booked unless any gains derived from shifting the allocation are minimized through the use of ACTs (20% less than the quota) to estimate the red snapper season length. This is particularly true with the proposed federal for-hire component quota that would likely increase the season length for federally permitted reef fish for-hire operators. Other reasonably foreseeable actions listed in Step 4c of this analysis are not expected to adversely affect the for-hire component and so should not place additional stress to the recreational sector. Non-FMP actions (see Step 4d) may place added stress on the for-hire component of the recreational sector (e.g., hurricanes and higher fuel costs). However, timing and magnitude of the potential negative cumulative the effects from these events are difficult to predict.

Little information is available on the stresses on the private angler sector. Because private angling is an optional activity, likely factors that affect a person's involvement are likely economic. Therefore, costs such as fuel, marina fees, and boat upkeep are likely to affect a person's decision to go red snapper fishing or not, particularly within the current short recreational red snapper season. As a result, more red snapper trips in federal waters could be taken if there are gains in pounds for this component depending on how states manage recreational red snapper fishing in state waters. Other reasonably foreseeable actions listed in Step 4c of this analysis are not expected to adversely affect the private angling component and so should not place additional stress to the recreational sector as a whole. Non-FMP actions (see Step 4d) may place added stress on the private angling component (e.g., hurricanes, higher fuel costs, and climate change). However, timing and magnitude of the potential negative cumulative the effects from these events are difficult to predict (see steps 4 and 6).

Red Snapper

Amendment 1 to the Reef Fish FMP (GMFMC 1989), implemented in 1990 before the Sustainable Fisheries Act (SFA) was passed, established the minimum spawning stock biomass at 20 percent SPR for all reef fish species. A 1991 regulatory amendment (GMFMC 1991) established a commercial quota and a 1997 regulatory amendment established a recreational quota. The quotas were set based on the 51:49 commercial:recreational allocation being applied to the total allowable catch. The Generic Sustainable Fisheries Act (SFA) Amendment (GMFMC 1999) proposed SFA definitions for optimum yield, minimum stock size threshold and maximum fishing mortality threshold for three reef fish species and generic definitions for all other reef fish. The definition of maximum fishing mortality threshold for red snapper, $F_{26\%SPR}$, was approved and implemented. Definitions for optimum yield and minimum stock size threshold were disapproved because they were not biomass-based. ACLs were not implemented for red snapper as the commercial and recreational quotas were considered functional equivalents; however, ACLs are currently being developed by the Council in a Generic Status Determination Criteria Amendment (see 4c of this CEA).

A benchmark assessment was conducted for red snapper in 2013 with an update in 2014 under the SEDAR stock assessment process (see Section 3.3 for a summary of the assessment). Based on the parameter estimates through 2014 (using provisional landings), the red snapper stock was found to be overfished, but that overfishing had ended. A brief description of the stock and its status can be found in Section 3.3 and step 5 of this CEA. Measures proposed in this amendment are not likely to adversely affect the red snapper stock status as long as landings do not exceed the OFL. This is because the actions would affect the allocation of red snapper between sectors and not how many red snapper can be caught. At this time, it is unclear how climate change may affect these regulatory thresholds (see steps 4 and 5).

Ecosystem

The stresses associated with the proposed actions in relation to regulatory thresholds are not likely to cause beneficial or adverse effects on the ecosystem. The actions would not change the way the reef fish fishery as a whole is prosecuted. Actions in the amendment would affect red snapper recreational fishing and not fishing for the other 30 reef fish species. Thus, significant effects on the ecosystem are not expected. The overall Gulf-wide fishing effort would remain constrained by the recreational quotas and annual catch limits. Climate change is likely to affect the Gulf ecosystem; however, as described in steps 4 and 5, these effects are poorly understood.

Administrative Environment

The stresses associated with the proposed actions in relation to regulatory thresholds are not likely to cause beneficial or adverse effects on the administrative environments. Activities such as monitoring landings, setting quotas, and enforcing fisheries regulations will continue as before. If the creating reallocating red snapper between sectors results in more satisfying management measures for each sector, this should reduce stresses on managers to respond complaints by stakeholders on red snapper management. However, given the allocation for the commercial sector would be reduced, dissatisfaction by the sector could result and place more stress on fishey managers.

7. Define a baseline condition for the resources, ecosystems, and human communities.

The purpose of defining a baseline condition for the resource and ecosystems in the area of the proposed actions is to establish a point of reference for evaluating the extent and significance of expected cumulative effects.

Reef Fish Fishery

As noted in Section 3.1, a description of the fishery and affected environment relative to red snapper was last fully discussed in joint Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007). Red snapper landings for the recreational sector are not available at the community level, making it difficult to identify communities as dependent on recreational fishing for red snapper. Data reflecting commercial landings of red snapper may or may not reflect areas of importance for recreational fishing of red snapper. It cannot be assumed that the proportion of commercial red snapper landings among other species in a community would be similar to its proportion among recreational landings within the same community because of sector differences in fishing practices and preferences. Thus, in addition to communities with the greatest commercial red snapper landings, the referenced analysis identifies communities with

the greatest recreational fishing engagement, based on numbers of: 1) federal for-hire permits, 2) vessels designated recreational by owner address, and 3) vessels designated recreational by homeport, plus availability of recreational fishing infrastructure. The Gulf communities to score highest for recreational fishing engagement based on the described analysis are listed in Figures 3.4.1.1 and 3.4.1.2, and Table 3.4.1.2. Because the analysis used discrete geo-political boundaries, Panama City and Panama City Beach had separate values for the associated variables. Calculated independently, each still ranked high enough to appear in the top 30 list suggesting a greater importance for recreational fishing in that region.

Information is lacking on the social environment of these fisheries, although some economic data are available, although primarily for the commercial sector. Fishery-wide ex-vessel revenues are available dating to the early 1960s, and individual vessel ex-vessel revenues are available from 1993 when the logbook program was implemented for all commercial vessels.

Red Snapper

The first stock assessment of red snapper was conducted in 1986 and has been assessed periodically since then (see Section 3.1). The most recent assessment (see Section 3.3 for a summary) occurred in 2013 through the SEDAR process and included data through 2011. The assessment shows trends in biomass, fishing mortality, fish weight, and fish length dating to the earliest periods of data collection. For this assessment, reliable commercial landings data were estimated back to 1963 and projected landings were estimated back to 1872 (Porch et al. 2004). Recreational data were available since 1981. Beginning with the 1988 assessment (Goodyear 1988), red snapper have been considered overfished and undergoing overfishing. However, the most recent assessment (SEDAR 31 2013) showed that overfishing had ended and that the stock condition, although still overfished, was improving. At this time, it is unknown what affects non-FMP actions (beneficial or adverse) such as the Deepwater Horizon MC252 oil spill or climate change may have on the health of red snapper stocks. Long-term monitoring of reef fish stocks relative to the Deepwater Horizon MC252 oil spill are ongoing.

Ecosystem

A baseline for analysis of the physical environment, as discussed in Section 3.2, was conducted in the EIS for the Generic EFH Amendment (GMFMC 2004a). Detailed information pertaining to the closures and preserves is provided in the February 2010 Regulatory Amendment (GMFMC 2010). In the Gulf, fish habitat for adult red snapper consists of submarine gullies and depressions; natural vertical relief structures such as coral reefs, rock outcroppings, and gravel bottoms; and artificial structures such as oilrigs and artificial reefs (GMFMC 2004a). Many of these vertical relief areas are identified as protected areas.

Other species in the ecosystem are discussed in Section 3.3. The Reef Fish FMP currently encompasses 31 species (Table 3.3.2). Eleven other species were removed from the FMP in 2012 through the Generic ACL/AM Amendment (GMFMC 2011a). Stock assessments and stock assessment reviews have been conducted for 13 species and can be found on the Council (www.gulfcouncil.org) and SEDAR (www.sefsc.noaa.gov/sedar) websites.

Administrative Environment

The administrative environment is described in Section 3.6. Responsibility for federal fishery management is shared by the Secretary of Commerce (Secretary) and the Council for the federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf states exercise legislative and regulatory authority over their respective state's natural resources through discrete administrative units. Although each agency is the primary administrative body with respect to the states' natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources.

Regulations contained within FMPs are enforced through actions of NOAA's Office of Law Enforcement, the United States Coast Guard, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the Magnuson-Stevens Act. These activities are being coordinated by the Council's Law Enforcement Advisory Panel and the Gulf States Marine Fisheries Commission's Law Enforcement Committee, which have developed a 5-year "Gulf of Mexico Cooperative Law Enforcement Strategic Plan – 2008-2012."

The ability of the regions to constrain harvest causes uncertainty surrounding the effects of implementing regional management. The federal management has experienced overages of the quota or allocation in 14 of the last 22 years. However, the methods for estimating landings and projecting the season have improved consistently over time. The question remains if regions could constrain the harvest within the regional quotas; however, the regions have indicated they intend to improve monitoring for their specific regions under this plan, which should ameliorate any concerns about overages being worse. Nevertheless, NMFS would need to continue analyzing the catch rates and landings to determine whether the regional management measures constrain the harvest. If the quota is exceeded for Gulf recreational red snapper harvest, then NMFS would be required to prohibit harvest in the EEZ regardless of the regional management plans.

8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.

Cause-and–effect relationships are presented in Tables 4.2.3.

Table 4.2.3. The cause and effect relationship of fishing and regulatory actions for red snapper within the time period of the CEA.

Time periods	Cause	Observed and/or expected effects
1800-2016	Climate change	Changes ocean acidity and temperature modifies fish and prey distributions and productivity; threaten fishing communities through sea level rise and changing weather patterns
1962-1983	Growth and recruitment overfishing	Declines in mean size and weight
1984	13-inch minimum size limit for the recreational and commercial fisheries	Slowed rate of overfishing
1990	3.1 mp quota for commercial fishery and 7 fish bag limit	Further slow rate of overfishing
1991-1992	2.04 mp commercial quota	Continue to slow rate of overfishing
1992	Establish red snapper Class 1 and 2 endorsements and respective trip limits	Begin derby fishery
1993-1998	3.06 mp commercial quota	Continue to slow rate of overfishing
1994	Increase minimum size to 14 inches in the commercial and recreational fisheries	Increase yield per recruit, increase the chance for spawning, and slow rate of overfishing
1995-1997	Increase minimum size to 15 inches in the commercial and recreational fisheries and reduce the bag limit to 5 fish	Increase yield per recruit, increase the chance for spawning, and slow rate of overfishing
1997-2005	Reduce recreational season length	Constrain harvest in recreational fishery
1998	Shrimp trawls in the EEZ required to use NMFS-certified BRDs west of Cape San Blas	Reduce fishing mortality rate on age 0 and age 1 red snapper
1998-2005	Reduce bag limit to 4 fish	Reduce fishing mortality rate in recreational fishery
1999-2005	Raise total quota to 9.12 mp	Reduce rebuilding rate for fishery
2000-2016	Raise recreational minimum size limit to 16 inches	Increase yield per recruit, increase the chance for spawning, slow rate of overfishing
2004	Shrimp trawls in the EEZ required to use NMFS-certified BRDs east of Cape San Blas	Further reduce fishing mortality rate on age 0 and age 1 red snapper
2004	Implement red snapper rebuilding plan	Provide mechanism to monitor harvest for rebuilding
2007-2016	Commercial- Established Individual Fishing Quota Program (IFQ)	Constrain commercial harvests within the limits set by the rebuilding plan; IFQ to further control commercial sector to prevent overages; increase in administrative work to manage the IFQ.
2007-2016	Recreational - Reduction of bag limit to 2 fish and adjustment of season length	Constrain recreational harvest to the quota. Progressively shorter seasons as average size of landed fish increases.
2013-2016	Overfishing has ended, but the stock remains overfished.	Continue stock rebuilding

9. Determine the magnitude and significance of cumulative effects.

The primary objectives of this amendment and associated EIS is to reallocate red snapper resources between the commercial and recreational sectors as well as add accountability measures to reduce the probability of exceeding the recreational quota with the intent to increase the net benefits from red snapper fishing as well as increase the stability of the red snapper component. The short- and long-term direct and indirect effects of each these actions are provided in Section 4.1.

To examine the magnitude and significance of the cumulative effects, important valued environmental components (VECs) were identified for the overall actions to be taken with this amendment. VECs are "any part of the environment that is considered important by the proponent, public, scientists and government involved in the assessment process. Importance may be determined on the basis of cultural values or scientific concern" (EIP 1998). For purposes of this analysis, an initial 22 VECs were identified, and the consequences of each alternative proposed in this amendment on each VEC were evaluated. Some of these VECs were combined into a revised VEC because many of the past, current, and reasonably foreseeable future actions (RFFA) were similar. Based on this analysis, seven VECs were determined to be the most important for further consideration. These are shown in Table 4.2.4.

VECs not included for further analysis were sharks and protected resources. Many longline vessels that target reef fish also target sharks. However, sharks were not considered as an important VEC because, as shark stocks have declined, the shark fishery has become more and more regulated, limiting the effects of this fishery and the stock on reef fish stocks. There may be some effort shifting from the shark fishery to the reef fish fishery due to increased restrictions, however, this effect will likely be minor because only a minority of vessels have dual federal reef fish and shark permits. Protected resources were also eliminated from further analyses in this section. As described in Section 3.3, biological opinions have concluded the primary reef fish gear (longline and hook-and-line) were not likely to jeopardize sea turtles or small tooth sawfish. Because actions considered in this amendment are not expected to change how reef fish fishing gear is used in the prosecution of the reef fish fishery, any take associated with reef fish fishing should not exceed that considered in biological opinions. All other Endangered Species Act (ESA)-listed species heave been found not likely to be adversely affected or not affected by the reef fish fishery. For marine mammals, gear used in the reef fish fishery were classified in the as Category III fisheries (see Section 3.3). This means this fishery has minimal impacts on marine mammals.

Table 4.2.4. VECs considered, consolidated, or not included for further evaluation.

VECs considered for further evaluation	VECs consolidated for further evaluation	VECs not included for further evaluation
Habitat	Hard bottom EFH	
Managed resources - red snapper - other reef fish species	Red snapper Other reef fish Prey species Competitors Predators	Sharks Protected species
Vessel owner, captain and crew - Commercial - For-hire	Vessel owner Captain Crew	
Wholesale/retail	Dealers Consumers	
Anglers		
Infrastructure	Fishing Communities Fishing support businesses (ice and gear suppliers, marinas, fuel docks)	
Administration	Federal Rulemaking Federal Permitting Federal Education State Rulemaking/Framework State Education	

The following discussion refers to the effects of past, present, and RFFAs on the various VECs.

Habitat

In the past, some fishing practices have had detrimental effects on the physical environment. Gears such as roller trawls and fish traps damaged habitats while harvesting fish species. As a result of these effects, the Council developed stressed areas to reduce these impacts. Further protections have been developed, primarily by either prohibiting fishing or limiting fishing activities that can occur within certain areas. Detailed information on the the closures and preserves is provided in the February 2010 Regulatory Amendment (GMFMC 2010). In addition, regulatory changes through Generic EFH Amendment 3 (GMFMC 2005b; implemented in 2006) prohibited bottom anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots to protect coral reefs in several HAPCs, and required a weak link in the tickler chain of bottom trawls on all habitats throughout the Gulf EEZ to minimize damage done to habitats should the chain get hung up on natural bottom structures.

Current allowable gear types can adversely affect hard bottom areas; however, these impacts are not considered great (See Section 4.1.1). Handline gear and longlines used in the reef fish fishery can damage habitat through snagging or entanglement. Longlines can also damage hard bottom structures during retrieval as the line sweeps across the seafloor. Additionally, anchoring over hard-bottom areas can also affect benthic habitat by breaking or destroying hard bottom structures. However, these gears are not believed to have much negative impact on bottom

structures and are considerably less destructive than other commercial gears, such as traps and trawls, which are not allowed for reef fish fishing.

Damage caused from reef fish fishing, although minor, is associated with the level of fishing effort (see Section 4.1.1). Therefore, actions reducing levels of effort would result in greater benefits to the physical environment because fishing related interactions with habitat would be reduced. Thus, actions described in steps 3 and 4 of this CEA which have reduced fishing effort for some species, and possibly the fishery on the whole, have had a positive effect on hard bottom habitats. RFFAs, such as Amendments 28 and 39, should also benefit these habitats as they would also reduce or limit fishing effort. As described in Sections 4.1.1, 4.2.1, and 4.3.1, effects on the physical environment from the proposed actions would likely be minimal because prosecution of the fishery should not be changed.

Reef fish EFH, particularly coral reefs and SAVs, are particularly susceptible to non-fishing activities (GMFMC 2004a). The greatest threat comes from dredge-and-fill activities (ship channels, waterways, canals, and coastal development). Oil and gas activities as well as changes in freshwater inflows can also adversely affect these habitats. As described in Step 4d of this cumulative effects analysis, the potential harm to reef fish habitat was highlighted by the Deepwater Horizon MC252 incident (http://response.restoration.noaa.gov/deepwaterhorizon). Essential fish habitat and HAPC designations cited in Section 3.2, GMFMC (2005b), and GMFMC (2010) and are intended to promote careful review of proposed activities that may affect these important habitats to assure that the minimum practicable adverse impacts occur on EFH. However, NMFS has no direct control over final decisions on such projects. The cumulative effects of these alternatives depend on decisions made by agencies other than NMFS, as NMFS and the Gulf Council have only a consultative role in non-fishing activities. Decisions made by other agencies that permit destruction of EFH in a manner that does not allow recovery, such as bulkheads on former mangrove or marine vegetated habitats, would constitute irreversible commitments. However, irreversible commitments should occur less frequently as a result of EFH and HAPC designations. Accidental or inadvertent activities such as ship groundings on coral reefs or propeller scars on seagrass could also cause irreversible loss.

At this time, it is unclear what effects climate change will have on red snapper EFH. Factors associated with climate change such as ocean acidification could negatively affect important biotic components of red snapper EFH such as corals (IPCC 2014). Hollowed et al. (2013) has identified important ecosystem paths that deserve future study to determine climate change cause and effects.

Managed Resources

There are 31 species of reef fish managed in the Gulf EEZ, and of the species where the stock status is known, four of the eleven species are considered overfished (gag, greater amberjack, gray triggerfish, and red snapper; see Section 3.3). Recent actions for these overfished stocks were intended to end overfishing and set or continued rebuilding plans (e.g., Amendments 27, 32, 35, and 37).

In the past, the lack of management of reef fish allowed many stocks to undergo both growth and recruitment overfishing. This has allowed some stocks to decline as indicated in numerous stock assessments (Section 3.3). Red snapper have been considered overfished since the first stock assessment in 1986. For red snapper, management measures including a minimum size limit, commercial quota, and aggregate bag limit were put in place as part of the initial Reef Fish FMP or Amendment 1 (Section 3.1). None of these measures halted increases in landings (Table 3.1.2). However, over time, management measures have become more restrictive and held landings more closely to the quotas.

The present harvest levels are based on a rebuilding plan put in place by Amendment 27 which shifted the plan from a constant catch to a constant fishing mortality plan. The current plan, after an initial reduction in the total allowable catch from 9.12 mp to 5 mp, has allowed harvests to increase as the stock rebuilds. These measures have also limited the red snapper harvest sufficiently to end overfishing on the stock. In addition, the red snapper IFQ program has successfully held landings by the commercial sector below its quota. However, these measures, along with other IFQ programs for grouper and tilefish (Amendment 29) may have, at least for the commercial sector, redirected effort towards other non-IFQ managed reef fish species such as gray triggerfish and greater amberjack by fishermen without IFQ shares or allocation. Landings of these non-IFQ managed species are closely managed to prevent them from exceeding their ACLs and protects them from overharvest. In fact, measures for gray triggerfish and greater amberjack allow the fishery to be closed if the harvest is projected to meet their respective commercial and recreational quotas.

Fishery management RFFAs are expected to benefit managed species. These actions are expected to manage the stocks at OY per National Standard 1 and are described in steps 3 and 4 of this CEA. Although this amendment and Amendments 36, 39, and 40 do not specifically address overfishing of red snapper, they are intended to improve the management of the commercial and recreational sectors in ways that are likely to better keep harvests within the quotas. Other RFFAs described in steps 3 and 4 similarly do not specifically address overfishing but are intended to improve the management of reef fish stocks either through revising ACLs, improving data reporting, or allowing more flexibility in management.

Non-fishing activities are likely to adversely affect reef fish stocks as listed in Step 4d. For example, LNG facilities are being proposed in the western and northern Gulf. As described in Step 4d, these facilities can have a negative effect on species with pelagic larvae, like most reef fish species. To mitigate the effects of these facilities, closed- rather than open-loop systems are being called for. At this time, the effect of LNG facilities is unknown and is likely to be less for reef fish species than other more coastal species such as red drum. Other factors such as climate change, hurricanes, and oil and gas extraction could have detrimental effects on reef fish species.

Vessel Owner, Captain, and Crew (Commercial and For Hire)

Adverse or beneficial effects of actions on vessel owners, captains, and crew are tied to the ability of a vessel to make money. In commercial fisheries, these benefits are usually derived from shares awarded after fishing expenses are accounted for. The greater the difference between expenses and payment (revenue) for harvested fish, the more profit is generated by the

fishing vessel. For-hire businesses generate revenue by selling either at the vessel level (charter businesses) or passenger level (headboats)

The commercial fishery has benefited from past actions in the reef fish fishery relative to this action. Prior to 1990, entry into the reef fish fishery was unhindered by regulation. To constrain harvest in order to prevent overexploitation of reef fish in general and red snapper specifically, the Council implemented size limits, quotas, seasonal closures, and a permit moratorium. These measures have produced limited success. For red snapper, the commercial quota was overrun 10 times until the IFQ program established in 2007 (Table 3.1.2).

Current management measures have had an overall positive, short-term impact on the red snapper component of the commercial sector. Landing restrictions were needed to keep the commercial red snapper harvest within its quota and primarily took the form of short mini-seasons (Hood et al. 2007). The mini-seasons kept many commercial vessels from taking more fishing trips during these years limiting fishing effort. With the advent of the IFQ program, fishermen with red snapper allocation were able to haveflexibility in when and where they could fish. It also stopped the commercial quota from being exceeded. However, this program adversely affected fishermen who did not qualify for the initial distribution of IFQ shares. These fishermen have been required to purchase IFQ shares or allocation if they wished to harvest red snapper.

For other overfished reef fish stocks other than red snapper, rebuilding measures required to end this condition and rebuild stocks have constrained the harvest for these species over the short-term and likely increased competition within the commercial sector to harvest other stocks. However, by using constant fishing mortality rebuilding plans, harvests have been allowed to increase as the stocks recover.

Non-FMP factors have adversely affected the reef fish commercial and for-hire fleets. Imports can cause fishermen to lose markets when fishery closures occur as dealers and processors use imports to meet consumer demand. Consumer comfort with imports can then limit the price fishermen receive when harvest is allowed. Other factors that have had an adverse effect on the commercial fishery include hurricanes and increases in fishing costs, such as fuel, which may have pushed marginal fishing operations out of business (see step 4d). Hurricanes are unpredictable and localized in their effects. Increases in fishing costs, unless accompanied by an increase in prices or harvest quantity, decrease the profitability of fishing.

The for-hire component has benefited from past actions in the reef fish fishery relative to this action. This increase has been fueled by increased interest by the public to go fishing (i.e., more trips sold) as evidenced by an almost three-fold increase in recreational fishing effort since 1986 (SEDAR 12 2007). To constrain harvest in order to prevent overexploitation of reef fish in general and red snapper specifically, NMFS, through the Council, implemented minimum size and bag limits for most species prior to 2000. In addition, a recreational red snapper quota was implemented in 1997 and a permit moratorium to constrain the recreational effort from the for-hire industry in 2003. These measures have met with limited success toward ending overfishing.

Current management measures may have had a negative, short-term impact on the for-hire component of the reef fish fishery. Landing restrictions have been needed to keep the recreational red snapper harvest within its quota. These restrictions include a reduced bag limit and seasonal closures. These measures may have reduced interest by the public to take for-hire fishing trips and possibly resulted in a reduction in the number of trips taken, as shown in Table 4.4.2 (although the Deepwater Horizon MC252 oil spill may also be partly responsible for the decrease in trips). In addition, the restriction requiring a person aboard a federally-permitted Gulf for-hire reef fish vessel to comply with federal regulations for reef fish species regardless of where the fish are harvested (GMFMC 2008b), may have reduced the ability of federally permitted for-hire operators to sell trips because of longer non-compliant state fishing seasons. However, as discussed in Sections 4.1.3 and 4.1.4, the creation of the two recreational components through Amendment 40 may allow for more federal fishing days for the federal for-hire component. Other factors that have had an adverse effect on the for-hire component of the reef fish fishery include increases in fishing costs, such as fuel, and hurricanes which may have pushed marginal fishing operations out of business (see step 4d). But these factors may be less important than may seem apparent. For the red snapper for-hire component, reductions in charter fishing from more restrictive regulations, increased costs, and effects from hurricanes were claimed by the industry (GMFMC 2007). But red snapper data for 2007 found only lingering effects of the 2005 hurricanes; annual average effort for 2004 through 2005 were only slightly greater than in 2007. Although the available data cannot address claims of severe economic losses by individual entities, this data does not support contentions of widespread industry harm. This in part may be due to effort shifting to other species or other charter businesses.

Magnuson-Stevens Act §407(d)(1) requires recreational or commercial red snapper fishing to end when a sector catches its quota. The recreational sector includes both the federal for-hire and private angling components. Thus, if the private angling component exceeds its allocation of the recreational quota to such an extent that the overall recreational quota is projected to be met, the federal for-hire component would also be prohibited from retaining red snapper regardless of whether there is remaining quota available for that component. Reduced season lengths in the following year for the federal for-hire components could be further exacerbated by overage adjustments from exceeding the quota and non-compatible state fishing seasons. However, the likelihood of overages is reduced because each component's season will be based on the lower recreational ACT rather than the recreational quota.

Many RFFAs are likely to have a short-term negative impact on the for-hire component. Red snapper, gray triggerfish, greater amberjack, and gag have experienced overfishing, are considered overfished, and are being managed under stock rebuilding plans. Measures required to end overfishing and rebuild these stocks have constrained the harvest for these species. If these measures result in less interest by the fishing public to take fishing trips on for-hire vessels, then this will adversely affect this sector. However, as mentioned above, this effect has not been apparent for red snapper because the for-hire component has the ability to shift to other species. The ability to shift to other species would be expected to continue in response to subsequent RFFAs, though the flexibility would be reduced the more species that become subject to increased restrictions. Some short-term beneficial actions include an increase in TAC and

relaxation of management measures for red grouper and vermilion snapper, as these stocks have recovered from overfishing and harvest restrictions have been relaxed.

Because many management RFFAs are designed to manage stocks at OY, these actions should be beneficial to the for-hire component. Stocks would be harvested at a sustainable level, and at higher levels for those stocks being rebuilt. If allocation between components, as proposed in this amendment, favors the for-hire component, this could provide additional red snapper fishing days and allow for more trips for this component. Specific to red snapper fishing, Amendment 39 evaluates implementing some type of regional management of the recreational sector, respectively. Regional management would affect the recreational sector only in Amendment 39. Depending on how the recreational quota is allocated among states and the management measures implemented by the states, the effects on the federal for-hire component could be beneficial or adverse depending on where a vessel operator fishes.

Non-management-related RFFAs that could affect the for-hire component include hurricanes, oil and gas extraction, and increases in fishing costs. Hurricanes are unpredictable and localized in their effects. Oil spills, which are also unpredictable, can have extensive adverse impacts over large areas as evidenced by the Deepwater Horizon MC252 spill. Increases in fishing costs, unless accompanied by an increase in the price charged per trip or the number of trips, decrease the profitability of fishing.

Wholesale/retail

Reef fish dealers are primarily found in Gulf States (step 2). As of January 6, 2014, there were 202 reef fish dealer permits. In 2012, there were 82 dealers involved in buying and selling red snapper through the IFQ program (NMFS 2013c). These dealers may hold multiple types of permits. Average employment information per reef fish dealer is unavailable. The profit profile for dealers or processors is not known.

Relative to past actions, dealers have benefitted from actions that have allowed the commercial fishery to expand, as described above. However, the effect of measures constraining commercial landings both in the past, present, and RFFAs may not have negative effects on dealers. As described in step 4d, the amount of snapper and grouper imports have doubled between 1994 and 2005. In terms of pounds, 2012 imports (44.5 mp) were more than twice domestic annual Gulf snapper and grouper landings (19.6 mp; see Section 3.5.1.4). This means dealers have some ability to substitute domestic product with imports. In addition, dealers also have the ability to substitute other domestic seafood products for red snapper in order to satisfy public demand for seafood. Therefore, the negative effects from management actions for the fishery may not necessarily translate into significant negative effects for dealers, though it is recognized that foreign product is less desireable because, if not, dealers would be substituting imports instead of domestic harvest when domestic harvest is available. As domestic fish stocks are rebuilt and management programs like IFQs are instituted, a more stable supply of domestic reef fish will be available to dealers. This should improve their ability to market these products and improve the profit they receive from selling these fish. However, if a consequence of these actions is a reduction in the amount of domestically harvested red snapper, this would reduce any improvements in their ability to market red snapper.

In general, consumers of seafood may be somewhat sheltered from fluctuations in the domestic seafood supply by the availability of imported seafood. Therefore, if harvest is restricted for specific species of reef fish due to management change, there is likely some imported product that can be substituted for that species. However, the higher prices that domestically harvested reef fish generally receive compared to imports demonstrates the preference many consumers have for domestic harvest. This preference and the importance of red snapper to consumers is also supported by comments submitted during scoping. Here, they voiced their concern about the availability of red snapper in markets and restaurants if the commercial sector's allocation is decreased (https://docs.google.com/spreadsheet/ccc?key=0Atgbk2rxQkqhdHByby1ad0F0THZiMGtoVTdIVDJ6cWc#gid=0).

Anglers

It is estimated that 3.1 million residents of Gulf States participated in marine recreational fishing (NMFS 2013b). Red drum and spotted sea trout are the species most commonly reported as target species by these anglers, with approximately 35% and 33% of interviewed anglers reporting targeting these species, respectively. The most commonly caught non-bait species across all waters of the Gulf were spotted seatrout, red drum, sand seatrout, Atlantic croaker, and gray snapper. In federal waters, the most commonly harvested species are white grunt, red grouper, red snapper, gag, and yellowtail snapper. As summarized in Holiman (2000), the typical angler in the Gulf is 44 years old, male (80%), white (90%), and employed full-time (92%). They have a mean income of $42,700, and have fished in the state for an average of 16 years. The average number of trips taken in the 12 months preceding the interview was about 38 and these were mostly (75%) one-day trips with average expenditure of less than $50. Seventy-five percent of interviewed anglers reported that they held salt-water licenses, and 59 percent owned boats used for recreational saltwater fishing. More recent comparable statistics are not available.

The effects of various past, present, and RFFAs on anglers are measured through levels of participation in the fishery. Measures that reduce participation are negative and measures that increase participation are positive. However, it is difficult to assess what affects past and present management measures have had on anglers because available data indicates the amount of effort by the private sector has increased. This increase has been from approximately 6.8 million trips in 1981 to over 14 million trips from in 2003 to 2009 (Rios 2013). The number of angler trips declined from 14,356,523 angler trips in 2009, to 13,548,899 in 2010, and 13,874,314 in 2011. The decline in 2010 and 2011 is likely due to the Deepwater Horizon MC252 oil spill. The effects of various management measures on the participation by anglers is likely similar to the effects on the for-hire industry discussed above with the exception that private anglers are not subject to permit restrictions on where they can fish that federally permitted for-hire vessel operators are (see above section). However, as discussed in Sections 4.1.3 and 4.1.4, the creation of the two recreational components may further restrict the number of federal fishing days for the private angling component due to non-compatible state season lengths. Factors unrelated to management, such as hurricanes and increasing fuel and other costs, likely affect private anglers similar to for-hire fishermen. It should be noted that a possible effect of the proposed action

could be constraining most of the private angling to state waters if state non-compatible seasons continue. If the private angling allocation is too low, then a greater proportion of private angling fish would be caught in state waters, reducing the days available to fish in federal waters.

As mentioned above in the discussion of the vessel owner, captain, and crew above, Magnuson-Stevens Act §407(d)(1) requires recreational or commercial red snapper fishing to end when a sector catches its quota. The recreational sector includes both the federal for-hire and private angling components. Thus, if the federal for-hire component exceeds its allocation of the recreational quota to such an extent that the overall recreational quota is projected to be met, the private angling component would also be prohibited from retaining red snapper regardless of whether there is remaining quota available for that component. Reduced federal season lengths for the private angling component in the following year could be further exacerbated by overage adjustments if the quota is exceeded and non-compatible state fishing seasons. However, the likelihood of this occurring is reduced because each component's season will be based on the lower recreational ACT rather than the recreational quota.

One RFFAs specific to red snapper fishing, Amendment 39 evaluates implementing some type of regional management of the recreational sector. Regional management would affect the recreational sector only in Amendment 39. Depending on how the recreational quota is allocated among states and the management measures implemented by the states, the effects on the private angling component could be beneficial or adverse depending on where anglers fish.

Non-management-related RFFAs that could affect anglers include hurricanes, oil and gas extraction, and increases in fishing costs. Hurricanes are unpredictable and localized in their effects. Oil spills, which are also unpredictable, can have extensive adverse impacts over large areas as evidenced by the Deepwater Horizon MC252 spill. Increases in fishing costs as well as lost fishing opportunities would likely reduce the amount of angler effort.

Infrastructure

Infrastructure refers to fishing-related businesses and includes marinas, rentals, snorkel and dive shops, boat dockage and repair facilities, tackle and bait shops, fish houses, and lodgings related to recreational fisheries industry. This infrastructure is tied to the commercial and recreational fisheries and can be affected by changes in those fisheries. Therefore, the effects of past, present, and RFFAs should reflect responses by the fisheries to these actions. Past actions allowing the recreational and commercial fisheries to expand have had a beneficial effect by providing business opportunities to service the needs of these industries. Present actions which have constrained the commercial fisheries likely have had a negative effect because lower revenues generated from the fishery would be available to support the infrastructure. However, as conditions improve for the fishery, as described above, through RFFAs, benefits should be accrued by the businesses comprising the infrastructure. For the recreational sector, as stated above, it is difficult to assess the impact of present and RFFAs because angler participation has increased until recently. Actions enhancing this participation should be beneficial to the infrastructure. However, it should be noted the Council has been receiving public testimony that participation may be declining due to fuel price increases and this decline may be reflected in the decline in the number of angler trips taken. Non-FMP factors, such as the Deepwater Horizon

MC252 oil spill (IAI 2012) and climate change (http://www.nefsc.noaa.gov/ecosys/climate_change/implications.html) may adversely affect fishing communities, particularly those communities considered more vulnerable.

Administration

Administration of fisheries is conducted by federal (including the Council) and state agencies that develop and enforce regulations, collect data on various fishing entities, and assess the health of various stocks. As more regulations are required to constrain stock exploitation to sustainable levels, greater administration of the resource is needed. The NMFS Office of Law Enforcement, in cooperation with state agencies, would continue to monitor regulatory compliance with existing regulations and NMFS would continue to monitor both recreational and commercial landings to determine if landings are meeting or exceeding specified quota levels. Further, stock status needs to be periodically assessed to ensure stocks are being maintained at proper levels. Some present actions have assisted the administration of fisheries in the Gulf. In 2007, an IFQ program was implemented for the commercial red snapper fishery, requiring NMFS to monitor the sale of red snapper IFQ shares. The recordkeeping requirements of the IFQ programs have improved commercial quota monitoring and prevented or limited overages from occurring. A vessel monitoring system was also implemented for all commercial reef fish vessels in 2007 and is helping enforcement identify vessels violating various fishing closures. The recent implementation of ACLs and AMs for most federally managed species has required close monitoring of landings. For some species, harvest is closed if landings are projected to exceed the ACL within the season. For others, quotas or ACLs need to be adjusted during the following season to account for any ACL overages that occur in the preceding year.

10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.

The cumulative effects of allocation for red snapper on the biophysical environment is likely neutral because it should not have much effect on overall fishing effort. For the socioeconomic environment, depending on the sector, some effects would be likely be positive and some negative. However, short-term negative impacts on the fisheries' socioeconomic environment may occur due to the need to limit directed harvest and reduce bycatch mortality. These negative impacts can be minimized for the recreational sector by using combinations of bag limits, size limits and closed seasons and for the commercial sector through individual fishing quota programs, size limits, and season-area closures.

11. Monitor the cumulative effects of the selected alternative and modify management as necessary.

The effects of the proposed actions are, and will continue to be, monitored through collection of landings data by NMFS, stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. Landings data for the recreational sector in the Gulf is collected through MRIP, NMFS' Headboat Survey, and the Texas Marine Recreational Fishing Survey. MRIP replaced the previous MRFSS program. Commercial data is collected through trip ticket programs, port samplers, and logbook programs.

Currently, SEDAR assessments of Gulf red snapper are scheduled for 2014 and 2015 (see step 3).

Unavoidable Adverse Effects

Unavoidable adverse effects are described in detail in the cumulative effects analysis of Amendment 30B (GMFMC 2008b) and 32 (GMFMC 2011b) and is incorporated here by reference. Catch quotas, minimum size limits, bag limits, and seasonal closures, are generally effective in limiting total fishing mortality, the type of fish targeted, the number of targeted fishing trips, and/or the time spent pursuing a species. However, these management tools have the unavoidable adverse effect of creating regulatory discards. Discard mortality must be accounted for in a stock assessment as part of the allowable biological catch, and thus restricts total allowable catches.

Many of the current participants in the reef fish fishery may never recuperate losses incurred from the more restrictive management actions imposed in the short-term to end overfishing of red snapper. Because red snapper is but one of the reef fish species managed in the Reef Fish FMP, short-term losses are not expected to be significant, and other species may be substituted to make up for losses to the fishery. With the anticipated recovery of the stock, future participants in the reef fish fishery will benefit. Overall, short-term impacts of actions would be offset with much higher allowable catch levels as the stock recovers and is rebuilt.

The actions considered in this amendment should not have an adverse effect on public health or safety because these measures should not alter actual fishing practices, just 1) which sector can harvest what percentage of the overall allowable harvest and 2) reduce the probability of the recreational sector exceeding its allocation. Unique characteristics of the geographic area are highlighted in Section 3. Adverse effects of fishing activities on the physical environment are described in detail in Section 4.1. This section concludes the impact on the physical environment should be minor from actions proposed in this document. Uncertainty and risk associated with the measures are described in detail in the same sections as well as assumptions underlying the analyses.

Relationship between Short-term Uses and Long-term Productivity

The primary objectives of this amendment and associated EIS are to 1) reallocate red snapper resources between the commercial and recreational sectors with the intent to increase the net benefits from red snapper fishing as well as increase the stability of the red snapper component, and 2) establish buffers and payback provisions as additional accountability measures for the recreational red snapper sector to support management efforts to maintain landings within the recreational quota and mitigate quota overages should they occur . The relationship between short-term economic uses and long-term economic productivity are discussed in the preceding section. However, because red snapper is but one species in the reef fish complex, these effects may be mitigated through effort shifting to other species and may not be significant.

No alternatives are being considered that would avoid these short-term negative effects because they are a necessary cost associated with rebuilding and protecting the red snapper stock. The range of alternatives has varying degrees of economic costs and administrative burdens. Some alternatives have relatively small short-term economic costs and administrative burdens, but would also provide smaller and more delayed long-term benefits. Other alternatives have greater short-term costs, but provide larger and more immediate long-term benefits.

Mitigation, Monitoring, and Enforcement Measures

Mitigation, monitoring and enforcement measures are described in detail in the cumulative effects analysis of Amendment 30B (GMFMC 2008b) and is incorporated here by reference. The process of reallocating the red snapper resource between sectors in favor of the recreational sector is expected to have a negative short-term effect on the social and economic environment for the commercial sector, and will create a burden on the administrative environment. Given the negative effects described in Sections 4.1 and 4.2, it is difficult to mitigate these measures and managers must balance the costs and benefits when choosing management alternatives for the reef fish fishery.

To ensure the red snapper stock recovers to a level that supports harvests at the optimum yield, periodic reviews of stock status are needed. These reviews are designed to incorporate new information and to address unanticipated developments in the respective fisheries and would be used to make appropriate adjustments in the reef fish regulations should harvest not achieve optimum yield objectives. The details for how assessments are developed, reviewed, and applied are described in Amendment 30B, as are the rule-making options the Council and NMFS have for taking corrective actions (GMFMC 2007).

Current reef fish regulations are labor intensive for law enforcement officials. NMFS law enforcement officials work cooperatively with other federal and state agencies to keep illegal activity to a minimum. Violators are penalized, and for reef fish commercial and reef fish for-hire operators, permits required to operate in their respective fisheries can be sanctioned.

Reef fish management measures include a number of area-specific regulations where reef fish fishing is restricted or prohibited in order to protect habitat or spawning aggregations of fish, or to reduce fishing pressure in areas that are heavily fished. To improve enforceability of these

areas, the Council has established a vessel monitoring system program for the commercial reef fish sector to improve enforcement. Vessel monitoring systems allows NMFS enforcement personnel to monitor compliance with these area-specific regulations, and track and prosecute violations.

Irreversible and Irretrievable Commitments of Resources

There are no irreversible or irretrievable commitments of resources proposed herein. The actions to change the red snapper allocation and accountability measures are readily changeable by the Council in the future. There may be some loss of immediate income (irretrievable in the context of an individual not being able to benefit from compounded value over time) to some sectors from the restricted fishing seasons.

Any Other Disclosures

CEQ guidance on environmental consequences (40 CFR §1502.16) indicates the following elements should be considered for the scientific and analytic basis for comparisons of alternatives. These are:

a) Direct effects and their significance.
b) Indirect effects and their significance.
c) Possible conflicts between the proposed actions and the objectives of federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned.
d) The environmental effects of alternatives including the proposed action.
e) Energy requirements and conservation potential of various alternatives and mitigation measures.
f) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.
g) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.
h) Means to mitigate adverse environmental impacts.

Items a, b, d, e, f, and h are addressed in Sections 2, 3, 4, and 5. Items a, b, and d are directly discussed in Sections 2 and 4. Item e is discussed in economic analyses (Sections 4.1.3, 4.2.3, and 4.3.3). Alternatives that encourage fewer fishing trips would result in energy conservation. Item f is discussed throughout the document as fish stocks are a natural and depletable resource. A goal of this amendment is to make this stock a sustainable resource for the nation. Mitigation measures are discussed in Section 4.4. Item h is discussed in Section 4, with particular mention in Section 4.4.

The other elements are not applicable to the actions taken in this document. Because this amendment concerns the management of a marine fish stock, it is not in conflict with the objectives of federal, regional, state, or local land use plans, policies, and controls (Item c). Urban quality, historic and cultural resources, and the design of the built environment, including

the reuse and conservation potential of various alternatives and mitigation measures (Item g) is not a factor in this amendment. The actions taken in this amendment will affect a marine stock and its fishery, and should not affect land-based, urban environments. The exception would be the *U.S.S. Hatteras*, located in federal waters off Texas, which is listed in the National Register of Historic Places. The proposed actions are not likely to increase fishing activity and so no additional impacts to the *U.S.S. Hatteras* would be expected.

With regards to the Endangered Species Act (ESA), the most recent biological opinion for the Reef Fish Fishery Management Plan, completed on September 30, 2011, concluded authorization of the Gulf reef fish fishery managed under this management plan is not likely to jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback) or smalltooth sawfish (See Section 3.2 for more information on ESA species). An incidental take statement was issued specifying the amount of anticipated take, along with reasonable and prudent measures and associated terms and conditions deemed necessary and appropriate to minimize the impact of these takes. Other listed species and designated critical habitat in the Gulf were determined not likely to be adversely affected. NMFS also determined that the reef fish fishery was not likely to adversely affect *Acropora* because of where the fishery operates, the types of gear used in the fishery, and that other regulations protect *Acropora* where they are most likely to occur.

With regards to the Marine Mammal Protection Act, fishing activities under the Reef Fish Fishery Management Plan should have no adverse impact on marine mammals (See Section 3.2). The proposed actions are not expected to substantially change the way the fishery is currently prosecuted (e.g., types of methods, gear used, etc.). Gear used by the reef fish fishery was still classified in the 2014 List of Fisheries as a Category III fishery (79 FR 14418, April 14, 2014) because it is prosecuted primarily with longline and hook-and-line gear. This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to one percent of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock, while allowing that stock to reach or maintain its optimum sustainable population.

CHAPTER 5. REGULATORY IMPACT REVIEW

CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS

CHAPTER 7. LIST OF PREPARERS

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GMFMC = Gulf of Mexico Fishery Management Council; NOAA GC = National Oceanic and Atmospheric Administration General Counsel; SEFSC = Southeast Fisheries Science Center; SERO = Southeast Regional Office of the National Marine Fisheries Service.

CHAPTER 8. LIST OF AGENCIES, ORGANIZATIONS AND PERSONS TO WHOM A COPY OF THE DEIS WAS SENT

National Marine Fisheries Service
- Southeast Fisheries Science Center
- Southeast Regional Office
- Office for Law Enforcement

NOAA General Counsel

Environmental Protection Agency
United States Coast Guard
United States Fish and Wildlife Services
Texas Parks and Wildlife Department
Alabama Department of Conservation and Natural Resources/Marine Resources Division
Louisiana Department of Wildlife and Fisheries
Mississippi Department of Marine Resources
Florida Fish and Wildlife Conservation Commission

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CHAPTER 10. INDEX

APPENDIX A. OTHER APPLICABLE LAW

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.) provides the authority for fishery management in federal waters of the exclusive economic zone. However, fishery management decision-making is also affected by a number of other federal statutes designed to protect the biological and human components of U.S. fisheries, as well as the ecosystems that support those fisheries. Major laws affecting federal fishery management decision-making are summarized below.

Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (APA) (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Under the APA, the National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the *Federal Register* and to solicit, consider, and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day waiting period from the time a final rule is published until it takes effect.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state's coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NMFS regulations at 15 C.F.R. part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state's coastal zone, NMFS is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

Upon submission to the Secretary, NMFS will determine if this plan amendment is consistent with the Coastal Zone Management programs of the states of Alabama, Florida, Louisiana, Mississippi, and Texas to the maximum extent possible. Their determination will then be submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs for these states.

Data Quality Act

The Data Quality Act (DQA) (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

Specifically, the DQA directs the Office of Management and Budget to issue government wide guidelines that "provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies." Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: 1) ensure information quality and develop a pre-dissemination review process; 2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and 3) report periodically to Office of Management and Budget on the number and nature of complaints received.

Scientific information and data are key components of fishery management plans (FMPs) and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the Act, FMPs and amendments must be based on the best information available. They should also properly reference all supporting materials and data, and be reviewed by technically competent individuals. With respect to original data generated for FMPs and amendments, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended, (16 U.S.C. Section 1531 et seq.) requires federal agencies use their authorities to conserve endangered and threatened species. The ESA requires NMFS, when proposing a fishery action that "may affect" critical habitat or endangered or threatened species, to consult with the appropriate administrative agency (itself for most marine species, the U.S. Fish and Wildlife Service for all remaining species) to determine the potential impacts of the proposed action. Consultations are concluded informally when proposed actions may affect but are "not likely to adversely affect" endangered or threatened species or designated critical habitat. Formal consultations, including a biological opinion, are required when proposed actions may affect and are "likely to adversely affect" endangered or threatened species or adversely modify designated critical habitat. If jeopardy or adverse modification is found, the consulting agency is required to suggest reasonable and prudent alternatives.

On September 30, 2011, the Protected Resources Division released a biological opinion which, after analyzing best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC 252 oil release event in the northern Gulf of Mexico), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf of Mexico reef fish fishery is also not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011a). On December 7, 2012, NMFS published a proposed rule to list 66 coral species under the ESA and reclassify *Acropora* from threatened to endangered (77 FR 73220). In a memorandum dated February 13, 2013, NMFS determined the reef fish fishery was not likely to adversely affect *Acropora* because of where the fishery operates, the types of gear used in the fishery, and that other regulations protect *Acropora* where they are most likely to occur.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas, and on the importing of marine mammals and marine mammal products into the United States. Under the MMPA, the Secretary of Commerce (authority delegated to NMFS) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea and marine otters, polar bears, manatees, and dugongs.

Part of the responsibility that NMFS has under the MMPA involves monitoring populations of marine mammals to make sure that they stay at optimum levels. If a population falls below its optimum level, it is designated as "depleted," and a conservation plan is developed to guide research and management actions to restore the population to healthy levels.

In 1994, Congress amended the MMPA, to govern the taking of marine mammals incidental to commercial fishing operations. This amendment required the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction, development and implementation of take-reduction plans for stocks that may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fisheries, and studies of pinniped-fishery interactions.

Under Section 118 of the MMPA, NMFS must publish, at least annually, a List of Fisheries that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. The categorization of a fishery in the List of Fisheries determines whether participants in that fishery may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. The primary gears used in the Gulf of Mexico reef fish fishery are still classified in the proposed 2014 MMPA List of Fisheries as Category III fishery (December 6, 2013; 78 FR 73477). The conclusions of the most recent List of Fisheries for gear used by the reef fish fishery can be found in Section 3.3.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501 et seq.) regulates the collection of public information by federal agencies to ensure the public is not overburdened with information requests, the federal government's information collection procedures are efficient, and federal agencies adhere to appropriate rules governing the confidentiality of such information. The PRA requires NMFS to obtain approval from the Office of Management and Budget before requesting most types of fishery information from the public. Setting red snapper allocation would likely not have PRA consequences.

Executive Orders

E.O. 12630: Takings

The Executive Order on Government Actions and Interference with Constitutionally Protected Property Rights that became effective March 18, 1988, requires each federal agency prepare a Takings Implication Assessment for any of its administrative, regulatory, and legislative policies and actions that affect, or may affect, the use of any real or personal property. Clearance of a regulatory action must include a takings statement and, if appropriate, a Takings Implication Assessment. The National Oceanic and Atmospheric Administration Office of General Counsel will determine whether a Taking Implication Assessment is necessary for this amendment.

E.O. 12866: Regulatory Planning and Review

Executive Order 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all fishery regulatory actions that either implement a new fishery management plan or significantly amend an existing plan (See Chapter 5). RIRs provide a comprehensive analysis of the costs and benefits to society of proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Analysis. A regulation is significant if it a) has an annual effect on the economy of $100 million or more or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments and communities; b) creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency; c) materially alters the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or d) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

E.O. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

This Executive Order mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions. The Executive Order is described in more detail relative to fisheries actions in Section 3.5.1.

E.O. 12962: Recreational Fisheries

This Executive Order requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council (Council) responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The Council also is responsible for developing, in cooperation with federal agencies, States and Tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

E.O. 13132: Federalism

The Executive Order on Federalism requires agencies in formulating and implementing policies, to be guided by the fundamental Federalism principles. The Order serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This Order is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate state, tribes, and local entities (international, too).

E.O. 13158: Marine Protected Areas

This Executive Order requires federal agencies to consider whether their proposed action(s) will affect any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural or cultural resource within the protected area. There are several marine protected areas, habitat areas of particular concern, and gear-restricted areas in the eastern and northwestern Gulf of Mexico.

Essential Fish Habitat

The amended Magnuson-Stevens Act included a new habitat conservation provision known as essential fish habitat (EFH) that requires each existing and any new FMPs to describe and identify EFH for each federally managed species, minimize to the extent practicable impacts from fishing activities on EFH that are more than minimal and not temporary in nature, and identify other actions to encourage the conservation and enhancement of that EFH. To address these requirements the Council has, under separate action, approved an Environmental Impact Statement (GMFMC 2004a) to address the new EFH requirements contained within the Magnuson-Stevens Act. Section 305(b)(2) requires federal agencies to obtain a consultation for any action that may adversely affect EFH. An EFH consultation will be conducted for this action.

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APPENDIX B. BYCATCH PRACTICABILITY ANALYSIS

Introduction

Bycatch is defined as fish harvested in a fishery, but not sold or retained for personal use. This definition includes both economic and regulatory discards, and excludes fish released alive under a recreational catch-and-release fishery management program. Economic discards are generally undesirable from a market perspective because of their species, size, sex, and/or other characteristics. Regulatory discards are fish required by regulation to be discarded, but also include fish that may be retained but not sold.

Agency guidance provided at 50 CFR 600.350(d)(3) identifies ten factors to consider in determining whether a management measure minimizes bycatch or bycatch mortality to the extent practicable. These are:

1. Population effects for the bycatch species;
2. Ecological effects due to changes in the bycatch of that species (effects on other species in the ecosystem);
3. Changes in the bycatch of other species of fish and the resulting population and ecosystem effects;
4. Effects on marine mammals and birds;
5. Changes in fishing, processing, disposal, and marketing costs;
6. Changes in fishing practices and behavior of fishermen;
7. Changes in research, administration, and enforcement costs and management effectiveness;
8. Changes in the economic, social, or cultural value of fishing activities and non-consumptive uses of fishery resources;
9. Changes in the distribution of benefits and costs; and
10. Social effects.

The Regional Fishery Management Councils are encouraged to adhere to the precautionary approach outlined in Article 6.5 of the Food and Agriculture Organization of the United Nations Code of Conduct for Responsible Fisheries when uncertain about these factors.

Bycatch practicability analyses of the reef fish fishery have been provided in several reef fish amendments and focused to some degree on the component of the fishery affected by the actions covered in the amendment. For red snapper, bycatch practicability analyses were completed for Amendments 22, 27, and 40 to the Fishery Management Plan (FMP) for the Reef Fish Resources of the Gulf of Mexico (GMFMC 2004a, 2007, 2014a). Other bycatch practicability analyses were conducted in the following amendments (component of the fishery affected by the actions): Amendment 23 (vermilion snapper; GMFMC 2004b), Amendment 30A (greater amberjack and gray triggerfish; GMFMC 2008a), Amendment 30B (gag, red grouper, and other shallow-water grouper; GMFMC 2008b), Amendment 31 (longline sector; GMFMC 2009), Amendment 32 (gag and red grouper; GMFMC 2011a), Amendment 35 (greater amberjack; GMFMC 2012a); Amendment 37 (gray triggerfish; GMFMC 2012b), and Amendment 38 (shallow-water grouper;

GMFMC 2012c). In addition, a bycatch practicability analysis was conducted for the Generic Annual Catch Limits/Accountability Measures Amendment (GMFMC 2011b) that covered the Reef Fish, Coastal Migratory Pelagics, Red Drum, and Coral FMPs. In general, these analyses found that reducing bycatch provides biological benefits to managed species as well as benefits to the fishery through less waste, higher yields, and less forgone yield. However, in some cases, actions are approved that can increase bycatch through regulatory discards such as increased minimum sizes and closed seasons. In these cases, there is some biological benefit to the managed species that outweighs any increases in discards.

Red Snapper Bycatch

The Gulf of Mexico (Gulf) reef fish fishery directed at red snapper has been regulated to limit harvest in order for the stock to recover from an overfished condition. Regulations for the recreational sector include catch quotas, minimum size limits, bag limits, and seasonal closures. These are used to limit the harvest to levels allowed under the rebuilding plan. For the commercial sector, regulations previously included quotas, minimum size limits, seasonal closures, and trip limits. Now the sector is managed under an individual fishing quota (IFQ) program that was established in 2007. The program eliminates the need for seasonal closures and trip limits. Red snapper regulations have been generally effective in limiting fishing mortality, the size of fish targeted, the number of targeted fishing trips, and/or the time fishermen spend pursuing a species. However, these management tools have the unavoidable adverse effect of creating regulatory discards, which makes reducing bycatch challenging, particularly in the recreational sector.

An important aspect to red snapper bycatch is the penaeid shrimp fishery as previously described in Amendment 27/14 (GMFMC 2007). The shrimp fishery catches primarily 0-2 year old red snapper. To reduce red snapper bycatch, the Gulf of Mexico Fishery Management Council (Council) implemented regulations requiring the use of bycatch reduction devices (GMFMC 2002) and setting bycatch reduction targets (currently a 67% reduction from the baseline years 2001-2003; GMFMC 2007). Between the use of bycatch reduction devices and reductions in shrimp effort due to economic factors (Figure 1), the target reductions have been met.

Although red snapper bycatch in the shrimp fishery is an important source of mortality for this stock, this bycatch practicability analysis will focus on the directed reef fish fishery managed under the FMP for Reef Fish Resources of the Gulf of Mexico. Bycatch from the shrimp fishery has been and will be analyzed in the FMP for the Shrimp Fishery of the Gulf of Mexico, U.S. Waters.

Figures 2 and 3 show the relative number of discards for the recreational and commercial sectors as estimated by SEDAR 31 (2013). For the recreational sector, open season discards estimated through the Marine Recreational Information Program (MRIP) (charter and private angler) declined around 2007 as the recreational season got shorter due lower quotas. This trend is also apparent in the headboat data for the western Gulf. However, with shorter seasons of the past few years, the number of discards during the longer closed seasons increased (Figure 2). For the commercial sector, discards in the eastern handline and longline sectors have increased since the implementation of the IFQ program relative to the western Gulf (Figure 3). This may reflect a

shift in fishing effort that has resulted in the program. Note that for the commercial sector, closed season discards after the IFQ program was implemented refers to vessels with little or no red snapper allocation (see SEDAR 31 2013).

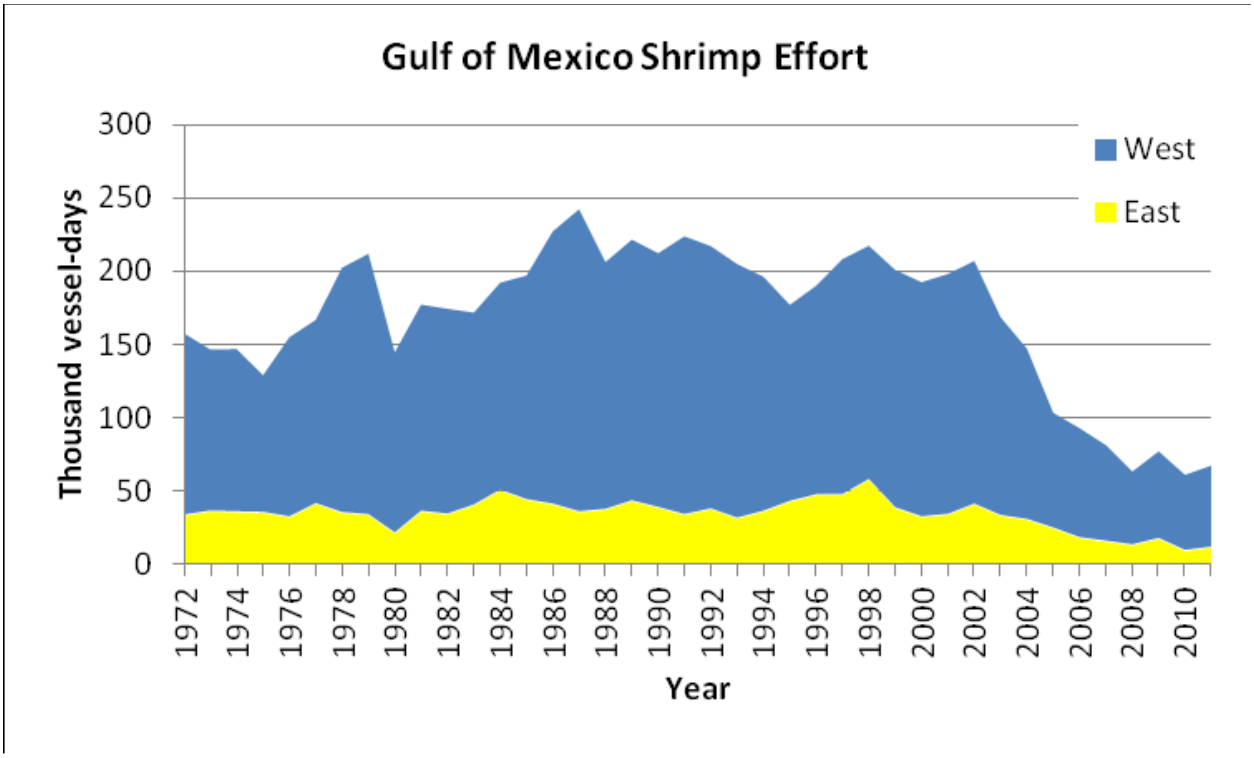

Figure 1. Gulf shrimp fishery effort (thousand vessel-days) provided by the National Marine Fisheries Service Galveston Lab. The reported effort does not include the average effort values used to fill empty cells. Source: Linton 2012.

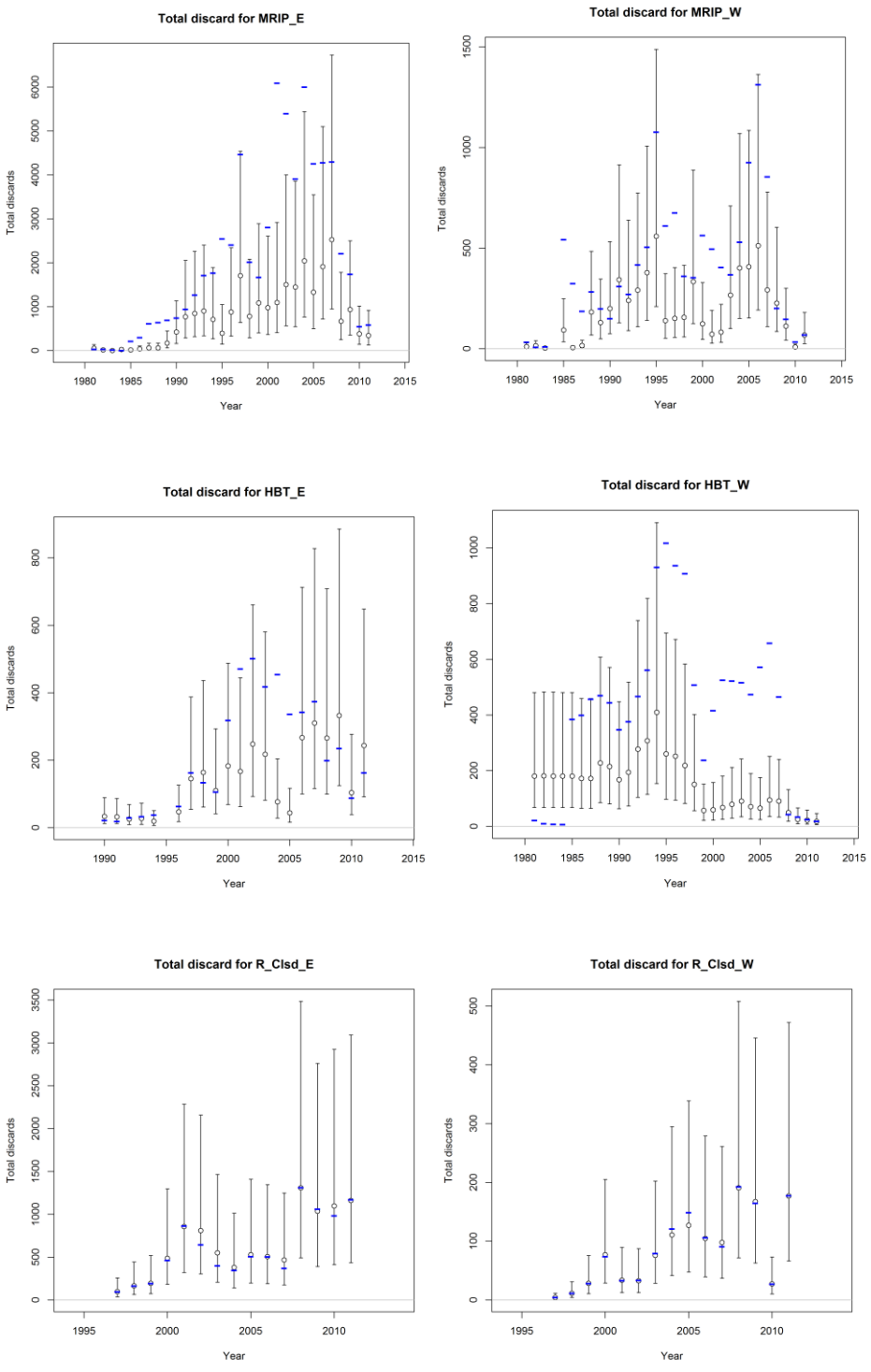

Figure 2. Observed (open circles) and predicted total discards (blue dashes) of red snapper from the private angler open season (top), headboat open season (middle), and recreational closed season in the eastern (left) and western (right) Gulf, 1997-2011. Source: SEDAR 31 2013.

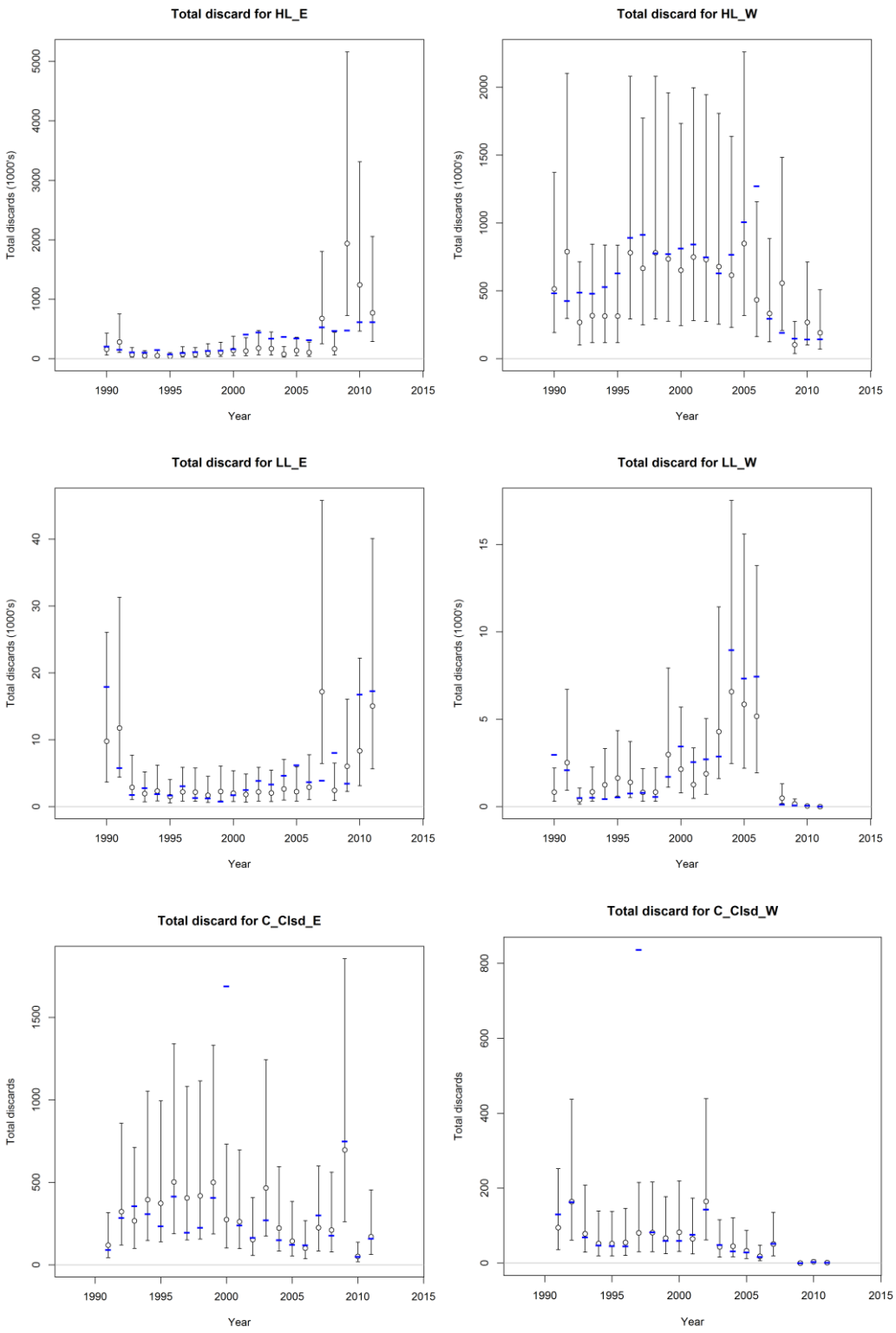

Figure 3. Observed (open circles) and predicted total discards (blue dashes) of red snapper from the commercial handline open season (top), longline open season (middle), and commercial closed season in the eastern (left) and western (right) Gulf, 1997-2011. Source: SEDAR 31 2013.

Campbell et al. (2012) identified several causes of red snapper discard mortality in their review of discard mortality in the directed reef fish fishery. These included hooking injuries, thermal stress, and barotrauma. Campbell et al. (2012) reviewed 11 studies that listed discard (release) mortality rates ranging from 0 to 79%. They reported that mortality tended to increase with capture depth, increasing water temperature, or from some compounding effect of these two factors. Burns et al. (2004) and Burns and Froeschke (2012) examined the feeding behavior of red snapper and found red snapper quickly chew and swallow their prey. As a result, there is less time to set a hook while fishing, resulting in greater probability of hooking related injuries. Burns et al. (2004) concluded hook-related trauma accounted for a greater portion of discard mortality than depth, despite catching red snapper at depths ranging from 90 to 140 feet.

Although Campbell et al. (2012) did not specifically address surface interval and predation, these factors were identified in GMFMC (2007) as contributing to discard mortality. Burns et al. (2002) found survival of red snapper increased the faster red snapper were returned to the water, thus they considered any reductions in surface interval/handling time an important way to reduce discard mortality. Several studies have documented predation on released red snapper. Dolphins and pelicans are the two most commonly observed predators and are known to pursue released fish, as well as fish before they are landed (SEDAR 7 2005). Several studies, which assessed discard mortality through surface observations, accounted for predation when estimating discard mortality (Patterson et al. 2001; Burns et al. 2004; Wilson et al. 2004).

A variety of discard mortality rates have been used in different stock assessment. The 1999 red snapper stock assessment (Schirripa and Legault 1999) assumed discard mortality rates of 33 percent for the commercial fishery and 20 percent for the recreational fishery. These discard mortality rates were derived from the literature and were determined by the Council's Reef Fish Stock Assessment Panel to be the best available estimates at the time (RFSAP 1999). During development of the 2005 red snapper stock assessment, the SEDAR 7 data workshop panel (SEDAR 7 2005) reviewed available information on depth of fishing and discard mortality by depth to produce fishery specific discard mortality rates by region (eastern and western Gulf), season (open and closed), and by sector (commercial and recreational). Applied estimates of discard mortality rates ranged 15% for recreationally caught and released red snapper in the eastern Gulf to 88% for commercially caught and released red snapper in the western Gulf caught during a season closure (Table 1).

Table 1. Mean/median depth of fishing and corresponding discard mortality rates for red snapper by fishery, region, and season.

Fishery	Region	Season	Depth of Capture	Release Mortality
Commercial	East	Open	180 ft (55 m)	71%
	East	Closed	180 ft (55 m)	71%
	West	Open	190 ft (58 m)	82%
	West	Closed	272 ft (83 m)	88%
Recreational	East	Open	65-131 ft (20-40 m)	15%
	East	Closed	65-131 ft (20-40 m)	15%
	West	Open	131 ft (40 m)	40%
	West	Closed	131 ft (40 m)	40%

Source: SEDAR 7 2005.

In the most recent benchmark stock assessment (SEDAR 31, 2013), a meta-analysis was used to estimate red snapper discard mortality using the 11 studies reviewed by Campbell et al. (2012). A venting/no venting component was added to account for the requirement to vent reef fish put in place through Amendment 27 (GMFMC 2007) as well as a gear component. For the commercial sector, average depths at which discards occurred for each gear (handline or long line), region (eastern or western Gulf), and season (open or closed) were calculated using commercial observer program data. Consistent with how commercial discards have been treated in other parts of the assessment, discards from trips with IFQ allocation were considered open season discards, while discards from trips with no IFQ allocation were considered closed season discards. For the recreational sector, average depths at which discards occurred for each region (eastern or western Gulf) and season (open or closed) were calculated using self-reported data from the iSnapper program. Estimated discard mortality rates ranged from 10 to 95% with commercial discard mortality rates greater than recreational discard mortality rates (Tables 2 and 3).

SEDAR 31 (2013) estimated the total number of fish killed (landed and discarded dead) by the commercial and recreational sectors from 1983 to 2011 (Table 4). For the recreational sector, the percentage of dead discards to total fish killed has declined since a peak in 2001. However, it was not until 2007 that the number of dead discards was consistently less than the number of landed fish. For the commercial sector, the percentage of dead discards peaked in 2000, but it was not until 2010 that the number of dead discards declined to less than 40% of the total fish killed.

Since 1996, more red snapper have been landed in the eastern Gulf than the western Gulf by the recreational sector (Table 5). A drop in the percentage of dead discards relative to the total number of fish killed occurred in both regions in 2008. The percentage of dead discards fell from 49.4% to 36.7% between 2007 and 2008 for the eastern Gulf and from 50.0% to 20.3% between 2007 and 2008 in the western Gulf. For the commercial sector, in the eastern Gulf the number of dead discards has generally been above 50% indicating that there are more discards were killed than landed (Table 5). In contrast, in the western Gulf there has been a falling off in the percentage of dead discards relative to the total number of killed fish since 2006 to well below 50%.

Table 2. Average depths and associated discard mortality rates for commercial discards of red snapper in the Gulf.

Gear	Handline				Longline			
Region	**East**		**West**		**East**		**West**	
Season	**Closed**	**Open**	**Closed**	**Open**	**Closed**	**Open**	**Closed**	**Open**
Average Depth (m)	24	45	84	53	66	62	132	104
Disc Mort - no venting	0.74	0.75	0.87	0.78	0.82	0.81	0.95	0.91
Disc Mort - venting	0.55	0.56	0.74	0.60	0.66	0.64	0.88	0.81

Source: SEDAR 31 2013.

Table 3. Average depths and associated discard mortality rates for recreational discards of red snapper in the Gulf.

Gear	Recreational			
Region	**East**		**West**	
Season	**Open**	**Closed**	**Open**	**Closed**
Average Depth (m)	33	34	36	35
Disc Mort - no venting	0.21	0.21	0.22	0.22
Disc Mort - venting	0.10	0.10	0.11	0.10

Source: SEDAR 31 2013.

Table 4. Estimates of the total number of red snapper landed, the number of dead discards, and percent dead discards for all killed fish for the recreational and commercial sectors by year in the Gulf.

	Recreational			Commercial		
Year	Landed	Dead Discards	Percent dead discards	Landed	Dead Discard	Percent dead discards
1983	3,314,185	8,599	0.3%	4,559,794	80,758	1.7%
1984	1,232,024	2,699	0.2%	2,775,042	33,579	1.2%
1985	1,427,026	255,716	15.2%	1,234,986	351,105	22.1%
1986	1,265,955	223,079	15.0%	875,494	304,026	25.8%
1987	1,022,844	271,426	21.0%	661,469	277,787	29.6%
1988	1,241,859	302,800	19.6%	950,904	366,876	27.8%
1989	1,060,456	289,201	21.4%	742,388	296,024	28.5%
1990	625,933	270,824	30.2%	703,020	549,250	43.9%
1991	1,060,610	353,327	25.0%	691,943	635,961	47.9%
1992	1,609,040	434,448	21.3%	995,013	817,581	45.1%
1993	2,202,931	581,455	20.9%	1,011,914	781,941	43.6%
1994	1,615,241	695,102	30.1%	869,075	796,390	47.8%
1995	1,384,049	1,008,873	42.2%	698,404	767,187	52.3%
1996	1,180,361	859,431	42.1%	1,011,328	1,120,205	52.6%
1997	1,547,317	1,342,121	46.4%	1,122,447	1,674,115	59.9%
1998	1,235,683	679,689	35.5%	1,167,877	949,481	44.8%
1999	1,031,284	549,708	34.8%	1,190,580	1,063,684	47.2%
2000	1,002,899	985,281	49.6%	1,088,667	2,065,579	65.5%
2001	1,075,115	1,792,155	62.5%	1,030,580	1,214,566	54.1%
2002	1,372,415	1,586,095	53.6%	1,145,169	1,171,069	50.6%
2003	1,224,547	1,204,754	49.6%	1,080,662	996,171	48.0%
2004	1,365,946	1,677,071	55.1%	1,036,860	1,027,510	49.8%
2005	1,024,641	1,433,508	58.3%	973,109	1,170,293	54.6%
2006	1,196,183	1,533,800	56.2%	1,193,134	1,343,644	53.0%
2007	1,397,237	1,370,519	49.5%	851,537	903,242	51.5%
2008	821,804	417,509	33.7%	671,979	481,599	41.7%
2009	979,945	339,988	25.8%	656,148	772,463	54.1%
2010	447,991	170,959	27.6%	833,253	472,930	36.2%
2011	670,910	220,515	24.7%	808,582	533,198	39.7%

Source: Recreational data is from MRIP; headboat and commercial data is from the logbook and SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Table 5. Estimates of the total number of red snapper landed the number of dead discards, and percent dead discards for all killed fish for the recreational and commercial sectors by year and region of the Gulf.

	Recreational						Commercial					
	East			West			East			West		
Year	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards
1983	1,055,691	4,455	0.4%	2,258,494	4,144	0.2%	1,851,965	23,983	1.3%	2,707,829	56,775	2.1%
1984	192,098	332	0.2%	1,039,926	2,367	0.2%	1,077,487	5,872	0.5%	1,697,555	27,707	1.6%
1985	482,587	51,497	9.6%	944,439	204,219	17.8%	575,540	109,179	15.9%	659,446	241,926	26.8%
1986	574,495	63,839	10.0%	691,460	159,240	18.7%	237,499	31,193	11.6%	637,996	272,833	30.0%
1987	548,813	129,871	19.1%	474,031	141,555	23.0%	179,088	35,679	16.6%	482,381	242,108	33.4%
1988	524,591	137,182	20.7%	717,268	165,618	18.8%	197,784	72,004	26.7%	753,120	294,872	28.1%
1989	474,670	147,657	23.7%	585,786	141,544	19.5%	166,355	59,518	26.4%	576,033	236,506	29.1%
1990	314,036	161,286	33.9%	311,897	109,538	26.0%	208,799	169,101	44.7%	494,221	380,150	43.5%
1991	548,912	202,238	26.9%	511,698	151,089	22.8%	156,339	187,293	54.5%	535,604	448,669	45.6%
1992	886,594	272,181	23.5%	722,446	162,267	18.3%	155,044	294,315	65.5%	839,969	523,266	38.4%
1993	1,336,961	366,226	21.5%	865,970	215,229	19.9%	160,428	346,349	68.3%	851,486	435,592	33.8%
1994	819,900	379,092	31.6%	795,341	316,010	28.4%	161,842	341,927	67.9%	707,233	454,464	39.1%
1995	664,786	547,997	45.2%	719,263	460,876	39.1%	47,994	234,693	83.0%	650,411	532,493	45.0%
1996	608,817	519,005	46.0%	571,544	340,426	37.3%	66,458	384,466	85.3%	944,870	735,739	43.8%
1997	966,914	992,702	50.7%	580,403	349,419	37.6%	52,616	231,911	81.5%	1,069,832	1,442,204	57.4%
1998	814,811	485,790	37.4%	420,872	193,899	31.5%	112,125	271,377	70.8%	1,055,751	678,104	39.1%
1999	788,097	413,395	34.4%	243,187	136,313	35.9%	148,788	407,417	73.2%	1,041,792	656,267	38.6%
2000	741,378	753,560	50.4%	261,521	231,721	47.0%	169,886	1,375,667	89.0%	918,781	689,912	42.9%
2001	858,210	1,559,948	64.5%	216,905	232,208	51.7%	209,036	487,449	70.0%	821,544	727,118	47.0%
2002	1,137,262	1,374,869	54.7%	235,153	211,226	47.3%	300,706	459,631	60.5%	844,463	711,438	45.7%
2003	956,693	992,640	50.9%	267,854	212,113	44.2%	281,921	459,040	62.0%	798,741	537,130	40.2%
2004	1,128,710	1,429,531	55.9%	237,236	247,540	51.1%	251,425	392,841	61.0%	785,435	634,669	44.7%
2005	759,036	1,071,240	58.5%	265,605	362,268	57.7%	220,412	352,853	61.6%	752,697	817,440	52.1%

2006	839,855	1,076,677	56.2%	356,328	457,123	56.2%		212,766	329,879	60.8%	980,368	1,013,764	50.8%
2007	1,087,060	1,059,975	49.4%	310,177	310,544	50.0%		311,729	626,004	66.8%	539,808	277,238	33.9%
2008	642,570	371,930	36.7%	179,233	45,579	20.3%		284,937	366,341	56.2%	387,042	115,258	22.9%
2009	773,394	303,722	28.2%	206,551	36,266	14.9%		302,568	682,585	69.3%	353,579	89,878	20.3%
2010	360,404	162,119	31.0%	87,587	8,840	9.2%		413,808	384,519	48.2%	419,445	88,411	17.4%
2011	552,878	192,184	25.8%	118,032	28,331	19.4%		423,809	445,771	51.3%	384,773	87,427	18.5%

Source: Recreational data is from MRIP; headboat and commercial data is from the logbook and SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Other Bycatch

Species incidentally encountered by the directed red snapper fishery include sea turtles, sea birds, and reef fishes. The primary gears of the Gulf reef fish fishery (longline and handline) are classified in the List of Fisheries for 2014 (79 FR 14418, April 14, 2014) as Category III gear. This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to one percent of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock, while allowing that stock to reach or maintain its optimum sustainable population.

The most recent biological opinion for the Reef Fish FMP was completed on September 30, 2011 (NMFS 2011). The opinion determined the continued authorization of the Gulf reef fish fishery managed under this FMP is not likely to adversely affect Endangered Species Act-listed marine mammals or coral, and would not likely jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback), or smalltooth sawfish. However, in the past, actions have been taken by the Council and NMFS to increase the survival of incidentally caught sea turtles and smalltooth sawfish by the commercial and recreational sectors of the fishery. These include the requirements for permitted vessels to carry specific gear and protocols for the safe release in incidentally caught endangered sea turtle species and smalltooth sawfish (GMFMC 2005) as well as restrictions on the longline portion of the commercial sector. Restrictions for longlines in the reef fish fishery include a season-area closure, an endorsement to use longline gear, and a restriction on the total number of hooks that can be carried on a vessel (GMFMC 2009).

Three primary orders of seabirds are represented in the Gulf, Procellariiformes (petrels, albatrosses, and shearwaters), Pelecaniformes (pelicans, gannets and boobies, cormorants, tropic birds, and frigate birds), and Charadriiformes (phalaropes, gulls, terns, noddies, and skimmers) (Clapp et al., 1982; Harrison, 1983) and several species, including: piping plover, least tern, roseate tern, bald eagle, and brown pelican (the brown pelican is endangered in Mississippi and Louisiana and delisted in Florida and Alabama) are listed by the U.S. Fish and Wildlife Service as either endangered or threatened. Human disturbance of nesting colonies and mortalities from birds being caught on fishhooks and subsequently entangled in monofilament line are primary factors affecting sea birds. Oil or chemical spills, erosion, plant succession, hurricanes, storms, heavy tick infestations, and unpredictable food availability are other threats. There is no evidence that the directed red snapper fishery is adversely affecting seabirds. However, interactions, especially with brown pelicans consuming red snapper discards and fish before they are landed, are known to occur (SEDAR 7 2005).

Other species of reef fish are also incidentally caught when targeting red snapper. In the western Gulf, vermilion snapper and some deep-water groupers are incidentally caught as bycatch when harvesting red snapper. In the eastern Gulf, various species of shallow-water grouper and vermilion snapper are the primary species caught as bycatch when targeting red snapper. Vermilion snapper are not overfished or undergoing overfishing (SEDAR 9 Update 2011) and bycatch is not expected to jeopardize the status of this stock. Deep-water groupers are caught both in the eastern and western Gulf primarily with longline gear (> 80 percent). The deep-water grouper fishery was managed with a 1.02 million pound quota. From 2004 until the

implementation of the grouper/tilefish IFQ program in 2010 (SERO 2012a), the fishery met their quota and closed no later than July 15 each year. Deep-water grouper closures during this time period may have resulted in some additional discards of grouper by longliners targeting red snapper. Since the IFQ program was implemented, deep-water grouper species are landed year-round by holders of IFQ allocation and the quota has not been exceeded. Longliners account for approximately 5% of the annual commercial red snapper landings since 2000 (SEDAR 31 2013). It is unknown how increases in closed season discards might have affected the status of deep-water grouper stocks or the change to an IFQ managed sector. An updated assessment for yellowedge grouper found the stock was not overfished or undergoing overfishing (SEDAR 22 2011).

Red grouper and gag are the two most abundant shallow-water grouper species in the Gulf and primarily occur on the west Florida shelf. Both species have been found to be not overfished or undergoing overfishing (SEDAR 33 2014 for gag and SEDAR 12 Update 2009 for red grouper). Gag had been in a rebuilding plan that took into account gag dead discards and this plan was implemented through Amendment 32 (GMFMC 2011a). Within the reef fish fishery, discards represent a large and significant portion of mortality for gag and red grouper. In the past, these species were managed under a shallow-water grouper quota which was met prior to the end of the 2004 and 2005 fishing years. For the recreational sector, shallow-water grouper including gag and red grouper are managed with size limits, bag limits, and season and area closures. The recreational gag season begins July 1 and extends until the catch target is projected to be caught. Since 2010, the commercial harvest of gag, red grouper, and other shallow-water grouper are managed under an IFQ program and the commercial sector has not exceeded its quota under the program. Prior to the IFQ program, quota closures at the end of the year have likely resulted in some additional commercial discards when the red snapper fishery is open. However, most commercial landings of red snapper occur in the western Gulf where gag and red grouper are less abundant or infrequently caught.

Practicability of current management measures in the directed red snapper fishery relative to their impact on bycatch and bycatch mortality.

The bycatch practicability analysis in Amendment 27 (GMFMC 2007) indicated directed fishery bycatch was believed to have a greater effect on red snapper stock recovery than the shrimp fishery. Although shrimp bycatch still accounts for a majority of bycatch, bycatch from the directed fishery is now known to have a greater effect on stock recovery. A quota, 16-inch total length (TL) minimum size limit, 2-fish bag limit, closed season, and gear restrictions are presently used to manage the recreational fishery. The commercial fishery is managed with an IFQ program, a quota, a 13-inch TL minimum size limit, and gear restrictions. Prior to 2007 when the red snapper IFQ program was implemented, the commercial fishery was also managed with closed seasons and trip limits. The following discusses current and historic management measures with respect to their relative impacts on bycatch.

Closed Seasons

Prior to 1997, the recreational sector was able to fish for red snapper year round. To prevent the recreational quota from being exceeded, recreational fishing for red snapper was closed on November 27, 1997, September 30, 1998, and August 29, 1999. In 2000, an April 21 through October 31 red snapper season was established. This was modified to a June 1 through October 31 season in 2008 by Amendment 27 (GMFMC 2007). Currently, the recreational directed red snapper fishery is closed in the exclusive economic zone from January 1 through May 31 each year through a 2012 framework action. However, since 2008, the sector has been closed early when the quota is projected to be caught. In addition, since 2008, the length of time red snapper fishing has been open has become increasingly shorter such that for 2011, 2012, and 2013, the season length has shrunk to 48, 46, and 42 days, respectively. With these shorter seasons, the number of released fish has decreased during the open season, but the number of releases during the closed season has increased (Figure 2; SEDAR 31 2013). Reflected in this trend is that although the estimated number of dead discards has decreased during the fishing season, the number of dead discards has increased during the longer closed periods (Figure 4). For 2014, the season length was decreased to 9 days. This was in response to a decision by the U.S. District Court for the District of Columbia (Court) in Guindon v. Pritzker, 2014 WL 1274076 (D.D.C. Mar. 26, 2014). NMFS, at the request of the Council, took emergency action to implement an in-season accountability measure for the recreational harvest of red snapper in the Gulf. The action set an annual catch target (ACT) equal to 80% of the 5.390 mp quota (ACT = 4.312 mp). The resultant 9-day season was based on the ACT and has only a 15% probability of exceeding the quota.

With the implementation of the IFQ program, there is no closed season for the commercial sector. However, commercial vessels with little or no red snapper allocation cannot land red snapper on most or all their trips. Thus, they effectively operate under closed season conditions. GMFMC (2013) indicated most discards were likely due to insufficient allocation, rather than the minimum size limit, especially in the longline fleet. Most of these discards were recorded as released alive.

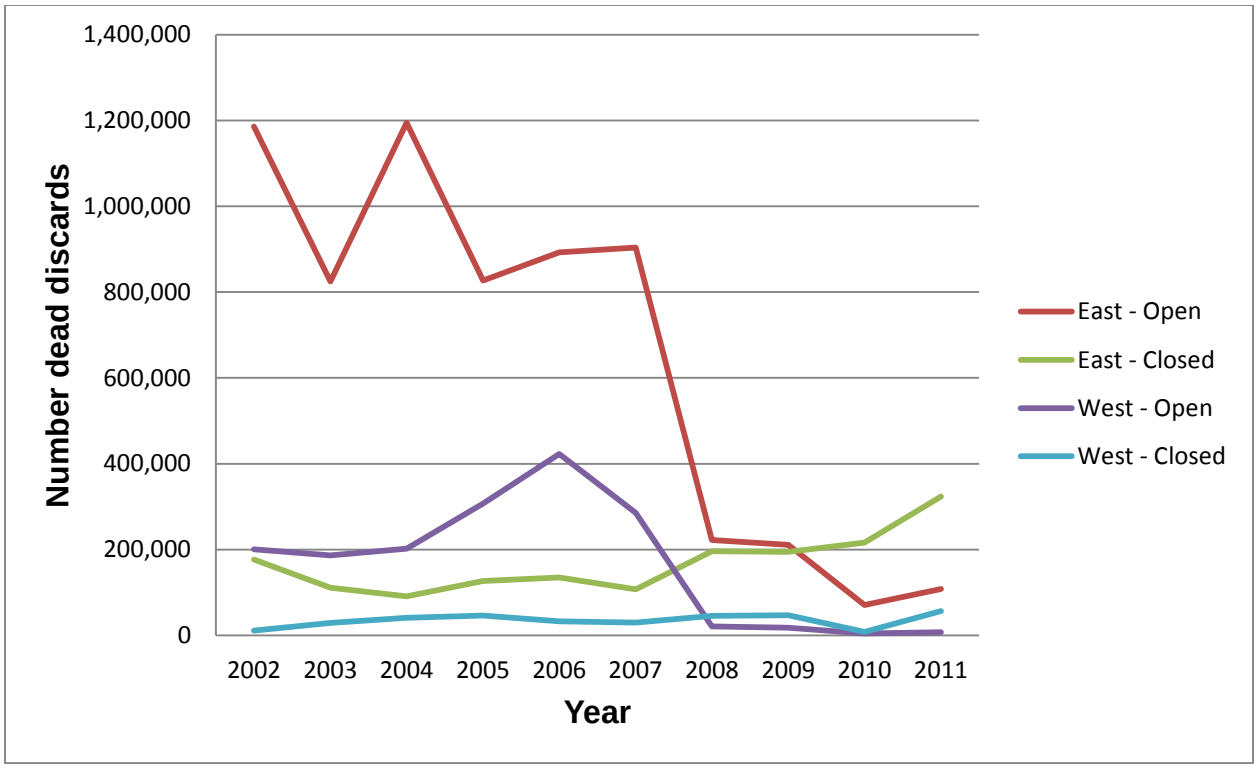

Figure 4. The number of Gulf red snapper dead discards from the recreational sector by year and by area. Source: Jakob Tetzlaff., pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Bag Limits

The recreational fishery is regulated by a 2-red snapper daily bag limit per person. Red snapper discards while harvesting the daily bag limit are a result of incidental capture of undersized fish prior to reaching the bag limit and targeting of other reef fish residing in similar habitat as red snapper after bag limits have been reached. SERO (2012b) reported anglers on for-hire vessels, on average, landed 1.23 red snapper per trip and anglers on private vessels landed 1.58 red snapper per trip when the season is open. Based on average catch rates, the current two red snapper bag limit is not a limiting factor for some trips, but likely occurs on others. Therefore, the release of undersized fish while harvesting the bag limit is still an important factor contributing to discards in addition to the release of legal-sized red snapper after the bag limit is reached.

Size limits

The 16-inch recreational and 13-inch commercial TL minimum size limits are important factors when considering bycatch in the directed fishery. Size limits are intended to protect immature fish and reduce fishing mortality. The recreational minimum size limit is above the size at 50% maturity and the commercial size limit is near the size at 50% maturity. Size-at-maturity varies by region, with 75% of eastern Gulf female red snapper mature by 12-inches TL and 50% of western Gulf red snapper mature by 13-14-inches TL (Fitzhugh et al. 2004).

Several yield-per-recruit (YPR) analyses have previously been conducted to identify the size that balances the benefits of harvesting fish at larger sizes against losses due to natural mortality. Goodyear (1995) concluded YPR was maximized in the red snapper fishery between 18 and 21-inches TL, assuming 20 and 33% discard mortality in the recreational and commercial red snapper fisheries, respectively. A subsequent YPR analysis by Schirripa and Legault (1997) indicated increasing the minimum size limit above 15-inches TL would result in no gains in yield. Analyses of minimum size limits conducted for Amendment 27 (GMFMC 2007) indicated red snapper projected recovery rates are slightly faster if the commercial minimum size limit is reduced or eliminated, but increasingly slowed by smaller recreational minimum size limits (Porch 2005). Decreasing the recreational and commercial minimum size limits was projected to increase stock recovery slightly over the short term, but stock recovery would be increasingly slowed if the recreational size limit were lowered over the long term (Porch 2005). However, as discussed in Amendment 27, changes in spawning potential and the rate of stock recovery were found to be negligible for recreational size limits ranging from 13 to 15-inches TL. An YPR analysis conducted by SERO (2006), using current fishery selectivities and discard mortality rates from SEDAR 7 (2005) supported Porch's (2005) findings. SERO (2006) examined four commercial minimum size limits (12-, 13-, 14-, and 15-inches TL) and five recreational minimum size limits (6-, 13-, 14-, 15-, and 16-inches TL). Based on the range of size limits analyzed, YPR was maximized at 16-inches TL in both the eastern and western Gulf recreational fisheries, 12-inches TL in the western Gulf commercial fishery, and 15-inches TL in the eastern Gulf commercial fishery. However, there was virtually no difference in maximum YPR (< 0.3 percent) for any of the eastern Gulf commercial size limits analyzed. In a study by Wilson et al. (2004) aboard commercial vessels using bandit rigs, 61% of red snapper released were greater than 13 inches and 86% were greater than 12 inches.

For Amendment 39 (still under development; GMFMC 2014b), an YPR analysis was applied to the recreational sector (SERO 2013). This analysis indicates the Gulf-wide YPR is maximized at a recreational size limit of 15-inches TL. However, there was not much of a change in YPR between lengths of 13- and 18-inches TL. Thus, if the minimum size limit were changed from 16- to 15-inches TL, any gain in YPR would be minimal. SERO (2013) also showed than any increase in the minimum size limit would reduce the number of fish landed. This would probably result in more regulatory discards and an increase in the number of dead discards.

Given the above discussion, a larger recreational minimum size limit is considered to be more effective than a similar sized commercial minimum size limit because of lower discard mortality rates in the recreational fishery (Tables 2 and 3). High discard mortality rates in the commercial fishery provide little, if any, protection to the stock because the released fish mostly die rather than contribute to filling the quota. In contrast, the current 16-inch TL minimum recreational size limit was found to afford some protection to the stock, because a greater percentage of discarded fish will survive to spawn and later contribute to the quota as larger animals.

Area closures

Although the Council has not developed area closures specifically for red snapper, the Council has created areas to protect other species. For example, two restricted fishing areas were

developed to specifically protect spawning aggregations of gag in 2000 (GMFMC 1999). The Madison-Swanson and Steamboat Lumps marine restricted fishing areas are located in the northeastern Gulf at a depth of 40 to 60 fathoms. Both areas prohibit bottom fishing. Bottom fishing is also prohibited in the Tortugas North and South marine reserves in the southern Gulf near the Dry Tortugas. Marine reserves and time/area closures benefit fish residing within reserve boundaries by prohibiting their capture during part or all of the year. Within marine reserves, fish that are undersized potentially have an opportunity to grow to legal size and are no longer caught as bycatch. If these fish emigrate from the marine reserve (i.e., spillover effect), then they may be caught as legal fish outside the reserve, thereby reducing bycatch. However, anglers and commercial fishermen may redistribute their effort to areas surrounding the area closure. If fishing pressure in these areas is increased, then any benefits of reduced bycatch of fish in the marine reserve will likely be offset by increases in bycatch of fish residing outside the marine reserve. Within restricted fishing areas or time/area closures, fishing is allowed under restrictions that are intended to protect certain components of the populations within the area (e.g., prohibitions on bottom fishing gear), or to protect populations during a critical phase of their life history, such as during spawning.

The Council did develop a season area closure to reduce bycatch of sea turtles for the longline component of the commercial sector. The use of longlines had been prohibited from waters less than 20 fathoms east of Cape San Blas, Florida, and 50 fathoms west of Cape San Blas; however, due to higher estimates of sea turtles caught in longline gear, measures were put in place through Amendment 31 (GMFMC 2009) to reduce this bycatch. One of these measures was the prohibition of the use of bottom longline gear in the Gulf reef fish fishery, shoreward of a line approximating the 35-fathom contour east of Cape San Blas, Florida from June through August. Most sea turtle takes by longline occur during the summer months.

Allowable gear

Vertical hook-and-line gear (bandit rigs, manual handlines) is the primary gear used in the commercial fishery fishing for red snapper (> 96% of annual landings). Longlines, spears, and fish traps account for a small portion of the commercial harvest (< 5%). Longlines account for only a small fraction of red snapper dead discards as most of the landings come from handline-caught fish (Table 6). In addition, longlines are fished in deeper water, particularly in the west, and select for larger, legal-sized red snapper. Longline vessels east of Cape San Blas, Florida are also restricted to carrying 1,000 hooks onboard (only 750 rigged for fishing at any given time) as part of a suite of measures put in place through Amendment 31 (GMFMC 2009) to reduce sea turtle bycatch.

Rod-and-reel is the primary gear used in the recreational fishery. Recreational anglers also use spears to capture red snapper. Spearfishing does not affect discard mortality since all fish caught are killed. Only undersized red snapper mistakenly killed while spearfishing would contribute to discard mortality. During the red snapper recreational fishing season, discards are primarily due to the recreational size limit; however, allowable gears can affect discard mortality rates.

Fishermen in both the commercial and recreational sectors are required to use non-stainless steel circle hooks, if using natural baits, to reduce discard mortality. The size of circle hooks used in

the fishery varies by manufacturer, gear type, and species targeted (i.e., if targeting vermilion snapper, smaller circle hooks may be used). Although circle hooks may not work as well to reduce red snapper discard mortality, they are effective in reducing mortality in other species such as red grouper (Burns and Froeschke 2012).

In addition to the circle hook requirement, Amendment 27 (GMFMC 2007) also put in place requirements for both commercial and recreational fishermen in the reef fish fishery to carry onboard dehooking devices. These gears are all intended to reduce bycatch and discard mortality. A dehooking device is a tool intended to remove a hook embedded in a fish. It reduces the handling time releasing a fish from a hook and allows a fish to be released with minimum damage.

IFQ program

The commercial sector was previously regulated by 2,000-lb and 200-lb trip limits. With the establishment of the red snapper IFQ program, red snapper discards after a trip limit was reached are no longer a factor. However, reef fish observer data since the IFQ program was implemented indicate a large proportion of legal-sized red snapper continue to be discarded by both the handline and longline fleets (GMFMC 2013). Discard rates do vary by gear. In 2011, 3.5 red snapper were landed for every fish released in the vertical line fleet compared to a 0.5 red snapper landed for each fish released in the longline fleet (SERO 2012b). Discard rates greatly varied by region. In 2011, 87% of observed red snapper caught in the Florida Panhandle were landed, compared to 79% off Louisiana and Texas, and 47% off the Florida Peninsula. There was also a noticeable difference in the size of red snapper caught, with red snapper along the Florida Peninsula (mostly19-24-inches TL) generally larger than fish caught in other areas of the Gulf (mostly 15-21-inches TL). Most discards were estimated to be released alive, regardless of gear type used. Discards were likely due to insufficient allocation, rather than the minimum size limit, especially in the longline fleet. In a study by Wilson et al. (2004) aboard commercial vessels using bandit rigs, 61% of red snapper released were greater than 13-inches TL, the minimum size limit.

Table 6. Commercial red snapper landings and dead discards in the Gulf by year and area.

	Eastern Gulf				Western Gulf			
	Landings		Dead discards		Landings		Dead discards	
Year	Handline	Longline	Handline	Longline	Handline	Longline	Handline	Longline
1983	1,646,550	205,415	1,587	1,237	2,698,740	9,089	56,690	85
1984	949,341	128,146	309	388	1,625,800	71,755	27,160	547
1985	550,063	25,477	79,906	2,239	608,624	50,822	233,753	8,173
1986	222,738	14,761	21,314	646	564,277	73,719	261,093	11,740
1987	168,788	10,300	20,091	743	412,668	69,713	229,400	12,708
1988	186,924	10,860	51,433	738	686,680	66,440	285,429	9,443
1989	156,071	10,284	32,961	1,714	531,066	44,967	230,318	6,188
1990	198,778	10,021	94,242	4,552	482,224	11,997	377,444	2,706
1991	152,971	3,368	79,800	1,647	527,667	7,937	332,927	1,905
1992	153,940	1,104	54,930	484	837,699	2,270	380,571	460
1993	157,367	3,061	57,447	843	849,065	2,421	375,085	471
1994	160,369	1,473	87,448	568	705,354	1,879	412,546	407
1995	46,528	1,466	54,453	658	648,399	2,012	491,941	501
1996	65,129	1,329	62,736	925	941,768	3,102	695,812	699
1997	51,767	849	79,005	515	1,066,360	3,472	713,290	729
1998	111,068	1,057	99,004	494	1,052,750	3,001	605,570	522
1999	147,499	1,289	102,825	340	1,032,070	9,722	602,380	1,564
2000	168,301	1,585	107,368	556	899,899	18,882	634,841	3,146
2001	207,257	1,779	278,236	894	809,218	12,326	658,252	2,334
2002	297,471	3,235	319,910	1,555	830,146	14,317	584,024	2,481
2003	279,295	2,626	235,502	1,190	782,006	16,735	492,094	2,618
2004	247,833	3,592	251,909	1,633	741,737	43,698	598,933	8,157
2005	216,596	3,816	230,654	2,081	725,819	26,878	785,721	6,686
2006	209,704	3,062	221,631	1,394	955,637	24,731	992,193	6,781
2007	308,237	3,492	949,770	14,520	521,931	17,877	231,164	443
2008	277,716	7,221	660,738	24,096	381,349	5,693	115,150	108
2009	299,480	3,088	748,261	10,548	347,913	5,666	89,641	68
2010	398,806	15,002	1,111,727	53,620	415,081	4,364	85,851	56
2011	408,346	15,463	1,274,735	60,252	382,630	2,143	86,460	18

Source: SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida)

Alternatives being considered and bycatch minimization

The proposed allocations and accountability measures discussed in Amendment 28 (GMFMC 2014c) can indirectly affect bycatch in the Gulf reef fish fishery. These actions are primarily administrative. They would change the apportionment of fish between the commercial and recreational sector as well as affect how the recreational season is calculated. Depending on which alternatives are selected for each action, they could either reduce or increase bycatch in the reef fish fishery.

Practicability Analysis

Criterion 1: Population effects for the bycatch species

This action would revise the current red snapper allocation between the recreational and commercial sectors and so would not directly affect bycatch minimization. As discussed in Section 4.1.2 of Amendment 28 (GMFMC 2014c), the number of dead discards is estimated to be lower as a result of more recreational allocation because some fish caught could be retained rather than discarded under an increased quota. For the commercial sector, a decrease in the allocation would likely lead to more discards as a result of a reduced quota. Thus, any benefit to the red snapper stock from increasing the recreational allocation in Alternatives 2-9 would likely be offset by increases in dead discards as a result of a reduced commercial quota. As a result, it is difficult to assess whether this action, in terms of dead discards, would be beneficial, adverse, or have no effect on the red snapper stock.

As described earlier in this bycatch practicability analysis, the Council and NMFS have developed a variety of management measures to reduce red snapper bycatch and these measures are thought to benefit the status of the stock. These include bycatch reduction devices and effort targets in the shrimp fishery, size limit reductions and the IFQ program for the commercial sector, and gear requirements, such as dehooking devices and the use of circle hooks by the reef fish fishery. In addition, any increases in bycatch resulting from proposed management actions are accounted for when reducing directed fishing mortality. Any reductions in bycatch not achieved must be accounted for when setting the annual catch limits; the less bycatch is reduced, the more the annual catch limits must be reduced.

Criterion 2: Ecological effects due to changes in the bycatch of red snapper (effects on other species in the ecosystem)

The relationships among species in marine ecosystems are complex and poorly understood, making the nature and magnitude of ecological effects difficult to predict with any accuracy. The most recent red snapper stock assessment (SEDAR 31 2013) indicated the stock is rebuilding. Consequently, it is possible that forage species and competitor species could decrease in abundance in response to an increase in red snapper abundance. Changes in the bycatch of red snapper are not expected to directly affect other species in the ecosystem. Although birds, dolphins, and other predators may feed on red snapper discards, there is no evidence that any of these species rely on red snapper discards for food.

Criterion 3: Changes in the bycatch of other species of fish and invertebrates and the resulting population and ecosystem effects

Population and ecosystem effects resulting from changes in the bycatch of other species of fish and invertebrates are difficult to predict. As discussed in Amendment 27 (GMFMC 2007) and 40 (GMFMC 2014a), groupers, snappers, greater amberjack, gray triggerfish and other reef fishes are commonly caught in association with red snapper. Many of these species are in rebuilding plans (gag, gray triggerfish, and greater amberjack) with the stocks improving. Regulatory discards significantly contribute to fishing mortality for all of these reef fish species, with the exceptions of gray triggerfish and vermilion snapper.

No measures are proposed in this amendment to directly reduce the bycatch of other reef fish species. Bycatch minimization measures implemented through Amendment 18A (GMFMC 2005), Amendment 27 (GMFMC 2007), and Amendment 31 (GMFMC 2009) are expected to benefit reef fish stocks, sea turtles, and smalltooth sawfish. As mentioned, this action would revise the red snapper allocation between the commercial and recreational sectors. For species with quotas (greater amberjack, gray triggerfish, and recreational red snapper), this could lead to a shift in fishing effort during red snapper season closures and negatively impact reef fish stocks not currently constrained by annual quotas or IFQ programs. The magnitude of this impact would depend on the size of the resultant quotas, the length of the red snapper closure, and the amount of effort shifting that occurs. Annual catch limits and accountability measures are now in effect for species not considered undergoing overfishing or overfished, thus potential for effort shifting and changes in bycatch may be lessened for these species.

Criterion 4: Effects on marine mammals and birds

The effects of current management measures on marine mammals and birds are described above. Bycatch minimization measures evaluated in this amendment are not expected to significantly affect marine mammals and birds. There is no information to indicate marine mammals and birds rely on red snapper for food, and the measure in this amendment is not anticipated to alter the existing prosecution of the fishery, and thus interactions with marine mammals or birds.

Criterion 5: Changes in fishing, processing, disposal, and marketing costs

Reducing the commercial allocation in Alternatives 2-9 would result in fewer fish being landed and certainly affect fishing, processing, disposal, and marketing costs. However, because red snapper is a part of a multispecies fishery, other species could be targeted to fill any loses from reduced red snapper quotas. This action would not be expected to result in any changes in fishing, processing, disposal, or marketing costs of recreationally harvested red snapper because these fish may not be sold.

Criterion 6: Changes in fishing practices and behavior of fishermen

It is not possible to determine whether bycatch, including the amount of regulatory discards, will be affected following implementation of these actions. For the recreational sector, Alternatives 2-9 are expected to increase the season length, albeit only a few days, and thus reduce discards. However, reef fish fishing will occur when recreational fishing for red snapper is closed, so regulatory discards red snapper will occur. Thus, it is possible that the amount of recreational regulatory discards remains more or less the same with the proposed shift in allocation. For the commercial sector, individual fishing quota shareholders will need to determine if their red snapper allocation is sufficient to target red snapper, or to use the allocation to keep incidentally caught red snapper while targeting other species.

Criterion 7: Changes in research, administration, and enforcement costs and management effectiveness

The proposed management measures are not expected to significantly impact administrative costs. Quotas and ACTs based on stock allocation measures are currently used to regulate the commercial and recreational sectors harvesting red snapper. None of the resultant quotas from this action are expected to diminish regulatory effectiveness. All of these measures will require additional research to determine the magnitude and extent of impacts to bycatch and bycatch mortality. Administrative activities such as quota monitoring and enforcement should not be affected by the proposed management measures.

Criterion 8: Changes in the economic, social, or cultural value of fishing activities and non-consumptive uses of fishery resources

Red snapper is a highly desirable target species and the proposed shift in allocation is intended to increase the percentage of the red snapper quota allocated to the recreational sector (and decrease the commercial sector's share by an equivalent percentage). This would be expected to improve fishing opportunities for the recreational sector, thereby increasing the economic and social benefits for recreational anglers and associated coastal businesses and communities as. However, this amendment would also decrease fishing opportunities for commercial fishermen, thereby adversely impacting associated businesses and communities. No effects would be expected on the non-consumptive uses of the fishery resources.

Criterion 9: Changes in the distribution of benefits and costs

The net effects of the proposed management measures in this amendment on bycatch are unknown because the resultant management measures could increase dead discards for the commercial sector and decrease dead discards for the recreational sector. The proposed management measures would not be expected to affect the overall amount of red snapper normally harvested by anglers and commercial fishermen. However, increases in the recreational red snapper quota and decreases in the commercial quota are expected to result in economic benefits for the recreational sector, and losses to the commercial sector.

Criterion 10: Social effects

Bycatch is considered wasteful by fishermen and it reduces overall yield obtained from the fishery. Minimizing bycatch to the extent practicable will increase efficiency, reduce waste, and benefit stock recovery, thereby resulting in net social benefits. It is expected that these actions would result in benefits for the recreational sector and adverse effects for the commercial sector.

Conclusion

Analysis of the ten bycatch practicability factors indicates there would be positive biological impacts associated with further reducing bycatch in the recreational sector. However, these benefits have to be balanced against the expected increases in bycatch in the commercial sector. The main benefits of reducing red snapper bycatch are less waste and increased yield in the directed fishery. Reducing discards and discard mortality rates would result in less forgone yield.

When determining reductions associated with various management measures, discard mortality is factored into the analyses to adjust the estimated reductions for losses due to dead discards. Changes in discards associated with each of these management measures are contingent on assumptions about how fishermen's behavior and fishing practices will adjust. In these actions, establishing a new red snapper allocation and adding recreational accountability measures would indirectly affect discards and bycatch. Discards and bycatch would be affected depending on the magnitude of allocation change allowed under the alternatives and how recreational harvest is constrained by recently implemented accountability measures (GMFMC 2014b).

The Council needed to consider the practicability of implementing the bycatch minimization measures discussed above with respect to the overall objectives of the Reef Fish FMP and Magnuson-Stevens Fishery Conservation and Management Act. Therefore, given actions in this amendment combined with previous actions, management measures, to the extent practicable, minimize bycatch and to the extent bycatch cannot be avoided, minimize the mortality of that bycatch.

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APPENDIX C. SUMMARY OF HABITAT UTILIZATION BY LIFE HISTORY STAGE FOR SPECIES IN THE REEF FISH FMP.

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Red Snapper	Pelagic	Pelagic	Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Reefs	Sand/ shell bottoms
Queen Snapper	Pelagic	Pelagic	Unknown	Unknown	Hard bottoms	
Mutton Snapper	Reefs	Reefs	Mangroves, Reefs, SAV, Emergent marshes	Mangroves, Reefs, SAV, Emergent marshes	Reefs, SAV	Shoals/ Banks, Shelf edge/slope
Blackfin Snapper	Pelagic		Hard bottoms	Hard bottoms	Hard bottoms, Shelf edge/slope	Hard bottoms, Shelf edge/slope
Cubera Snapper	Pelagic		Mangroves, Emergent marshes, SAV	Mangroves, Emergent marshes, SAV	Mangroves, Reefs	Reefs
Gray Snapper	Pelagic, Reefs	Pelagic, Reefs	Mangroves, Emergent marshes, Seagrasses	Mangroves, Emergent marshes, SAV	Emergent marshes, Hard bottoms, Reefs, Sand/ shell bottoms, Soft bottoms	
Lane Snapper	Pelagic		Mangroves, Reefs, Sand/ shell bottoms, SAV, Soft bottoms	Mangroves, Reefs, Sand/ shell bottoms, SAV, Soft bottoms	Reefs, Sand/ shell bottoms, Shoals/ Banks	Shelf edge/slope
Silk Snapper	Unknown	Unknown	Unknown	Unknown	Shelf edge	
Yellowtail Snapper	Pelagic		Mangroves, SAV, Soft bottoms	Reefs	Hard bottoms, Reefs, Shoals/ Banks	

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Wenchman	Pelagic	Pelagic			Hard bottoms, Shelf edge/slope	Shelf edge/slope
Vermilion Snapper	Pelagic		Hard bottoms, Reefs	Hard bottoms, Reefs	Hard bottoms, Reefs	
Gray Triggerfish	Reefs	Drift algae, *Sargassum*	Drift algae, *Sargassum*	Drift algae, Reefs, *Sargassum*	Reefs, Sand/ shell bottoms	Reefs, Sand/ shell bottoms
Greater Amberjack	Pelagic	Pelagic	Drift algae	Drift algae	Pelagic, Reefs	Pelagic
Lesser Amberjack			Drift algae	Drift algae	Hard bottoms	Hard bottoms
Almaco Jack	Pelagic		Drift algae	Drift algae	Pelagic	Pelagic
Banded Rudderfish		Pelagic	Drift algae	Drift algae	Pelagic	Pelagic
Hogfish			SAV	SAV	Hard bottoms, Reefs	Reefs
Blueline Tilefish	Pelagic	Pelagic			Hard bottoms, Sand/ shell bottoms, Shelf edge/slope, Soft bottoms	
Tilefish (golden)	Pelagic, Shelf edge/ Slope	Pelagic	Hard bottoms, Shelf edge/slope, Soft bottoms	Hard bottoms, Shelf edge/slope, Soft bottoms	Hard bottoms, Shelf edge/slope, Soft bottoms	
Goldface Tilefish	Unknown					
Speckled Hind	Pelagic	Pelagic			Hard bottoms, Reefs	Shelf edge/slope
Yellowedge Grouper	Pelagic	Pelagic		Hard bottoms	Hard bottoms	

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Atlantic Goliath Grouper	Pelagic	Pelagic	Mangroves, Reefs, SAV	Hard bottoms, Mangroves, Reefs, SAV	Hard bottoms, Shoals/ Banks, Reefs	Reefs, Hard bottoms
Red Grouper	Pelagic	Pelagic	Hard bottoms, Reefs, SAV	Hard bottoms, Reefs	Hard bottoms, Reefs	
Warsaw Grouper	Pelagic	Pelagic		Reefs	Hard bottoms, Shelf edge/slope	
Snowy Grouper	Pelagic	Pelagic	Reefs	Reefs	Hard bottoms, Reefs, Shelf edge/slope	
Black Grouper	Pelagic	Pelagic	SAV	Hard bottoms, Reefs	Hard bottoms, Mangroves, Reefs	
Yellowmouth Grouper	Pelagic	Pelagic	Mangroves	Mangroves, Reefs	Hard bottoms, Reefs	
Gag	Pelagic	Pelagic	SAV	Hard bottoms, Reefs, SAV	Hard bottoms, Reefs	
Scamp	Pelagic	Pelagic	Hard bottoms, Mangroves, Reefs	Hard bottoms, Mangroves, Reefs	Hard bottoms, Reefs	Reefs, Shelf edge/slope
Yellowfin Grouper			SAV	Hard bottoms, SAV	Hard bottoms, Reefs	Hard bottoms

Source: Adapted from Table 3.2.7 in the final draft of the EIS from the Generic EFH Amendment (GMFMC 2004a) and consolidated in this document.

APPENDIX D. SUMMARIES OF PUBLIC COMMENTS RECEIVED

This section includes four sets of public comment summaries on Reef Fish Amendment 28, Red Snapper Allocation:

- Summary of written comments received between the October 2013 and February 2014 Council meetings.
- Sumary of written comments received between the February and April 2014 Council meetings.

Both sets of comments can be viewed at:
http://www.gulfcouncil.org/fishery_management_plans/scoping-thru-implementation.php

- Summary of scoping comments received by NOAA Fisheries on the Notice of Intent to prepare an Environmental Impact Statement (EIS)
- Summaries of comments received at public hearings (March 10-20, 2014).

I. Summary of written comments received between the October 2013 and February 2014 Council meetings

- Take no action/Status quo – commercial sector supplies red snapper to the majority of the population
- Shift 5% of the existing quota to the recreational sector
- Shift 10% (or more) of the existing quota to the recreational sector
- Increase recreational quota by 8%
- Allocate 100% of future quota increases to the recreational sector if the allowable red snapper quota is in excess of 9.12 million pounds.
- Allocate 75% of quota increases if the allowable red snapper quota is in excess of 9.12 million pounds.
- Allocate 60% of the quota to the recreational sector
- Allocate 65% recreational and 35% commercial
- Allocate 75% recreational and 25% commercial
- Allocate 50/50 plus 100% of any quota increases to the recreational sector
- Allocate 55% recreational and 45% commercial
- Allocate 90% recreational and 10% commercial
- Allocate 67% recreational and 33% commercial – with the charter for-hire classified as commercial
- Allocate 50/50 quota
- Please oppose Amendment 28 and focus on real solutions for recreational anglers that will extend the season over the long-term.

- A 10% increase in allocation for the recreational sector would not increase the season length by much – but it would reduce the commercial sector's ability to supply America with red snapper.
- Any change in allocation would have a negative effect on the commercial sector's ability to make a living.
- Amendment 28 would hurt the region's seafood industry by giving more allocation to a poorly managed recreational sector at the expense of commercial fishermen, restaurants, seafood markets, and the millions of Americans who don't have the means to catch their own fish.

Other suggestions

- Eliminate commercial fishing until the fishery is no longer overfished, then allow commercial fishing under the same bag/size/season/gear restrictions as recreational, and auction off any commercial fishing permits.
- 4-6 month season with 4-fish bag limit
- 3-5 fish with one fish under 16" and a May 1 – October 1 weekend and holiday season.
- Charter for-hire should get 50% of the quota and each permit should receive the same amount of allocation.
- Giving more quota to the recreational sector will not solve their overfishing problem.
- 3-day weekend only fishing season.
- Close the season every ten years for one full season.
- Would support a 5-fish bag limit and 12" minimum size limit – keep the first 5 fish.
- Keep the first 4 fish – no size limit.
- Increase recreational bag limit to 10 fish.
- Allocation of any wild fish species should be relative to the numbers of recreational and commercial fishermen.
- 12" size limit/4 per person bag limit with an open season of 30 fishing days throughout the year – anglers would have to login to a computer system to declare a fishing day.

II. Sumary of written comments received between the February and April 2014 Council meetings

Comments include:

- Support for all of the Alternatives, including new Alternative 7
- Alternatives 1, 5, and 6 appear to be most popular
- Many offered support for some sort of reallocation in favor of the recreational sector, but did not specify an Alternative.

Others offered Alternatives not included in the document:

- A 50/50 split in allocation.

- 60% recreational allocation/30% commercial allocation, and a longer recreational season.
- 65% recreational allocation/35% commercial allocation.
- 65% recreational allocation/35% commercial allocation with a 4-fish bag limit and a longer recreational season.
- 75% recreational allocation/25% commercial allocation.
- 80% recreational allocation/20% commercial allocation.
- 95% recreational allocation/5% commercial allocation.

General Comments regarding the Amendment include:

- A shift in allocation in favor of the recreational sector, but not unless some sort of recreational accountability in put in place.
- Allocation of red snapper to the recreational fishery should be accompanied with accountability measures (AMs) to more effectively constrain the recreational sector to the prescribed annual catch limit (ACL).
- This amendment does not meet or address the stated purpose and need because increasing allocation on its own does not stabilize the fishery or prevent overfishing, nor is the amendment consistent with MSA (does not address AMs).
- Current allocation causes an increase in recreational fishing pressure.
- Reconsider the effects of removing the "30B permit provision", sector separation and other management strategies, as well as changes to the management goal for red snapper in conjunction with this amendment.

Other Red Snapper Comments Received:

- There is a need for better quality data, which can only come from improved funding, partnerships, and proper auditing.
- Current recreational regulations promote mortality by requiring fish to be thrown back only to die.
- Support Sector Separation.
- Make red snapper a sport fish.
- If the recreational season cannot be at least three months implement some type of days at sea program.
- Open amberjack and gray triggerfish during the same time as red snapper so there are other species to fish for, making the offshore trip more worthwhile.
- Captains should not be able to have a commercial license and a Charter-for-Hire license at the same time.
- Consider allowing the commercial sale of spear fishing catches.
- Recreational sector puts more money into the economy.
- Recreational sector loses a lot of days to bad weather.
- Louisiana is ready and able to manage snapper in federal and state waters off of Louisiana.
- More artificial reefs will provide more habitat and help the stock grow.
- A viable solution is to set a minimum distance (50-75 miles) from any shoreline for commercial fishing operations.
- Eliminate the size limit.

- Better way to manage – keep every snapper caught regardless of size and set a limit per angler.
- Allow anglers to keep a 5 gallon bucket of "first caught" reef fish.
- Close the fishery during spawning season.
- Develop a program that would allow private recreational anglers to pick and choose the days they can fish for red snapper.
- Implementing a tag program or a recreational red snapper license would help the recreational sector stay within its quota as well as contribute to data collection.
- Give recreational anglers six months to fish for red snapper.
- Decrease size limit to 13 or 14".
- Increase the red snapper bag limit.
- Increase the bag limit to 3-5 fish.
- Implement a 4-fish bag limit.
- Open red snapper season and leave it open.
- Adjust the season to accommodate the Friday before Memorial
- Day through Labor Day.
- Season should begin the first Friday in July and last through the last Saturday in July, but the five states should adopt the same seasons, with state waters abiding by a 2-fish bag limit while the federal bag limit increases to 4 fish.
- Implement a July – September season.
- Need separate seasons for different areas in the gulf by population.
- Implement a split, multi-season to accommodate more people.
- There should be no private "ownership" of red snapper (IFQ).
- Extend the season by 4 weeks.
- Delay the start of the season to July 1.
- Implement a 6 month season.
- If there cannot be a reasonable recreational season, there should be no commercial fishery.
- Unfair to reward the recreational sector that has consistently exceeded its quota.
- Allocating more fish to the recreational sector cannot increase the stability of the red snapper fishery, as stated in the purpose and need, because you are giving more fish to the sector that continues to exceed its quota.
- Allocation should be reviewed frequently.
- Amendment 28 is not a real solution. This amendment will only hurt more coastal businesses and commercial fishermen who depend on this fishery for a living.
- Recreational anglers should be able to keep a 2-day bag limit when on a trip in excess of 24 hours.
- Mid water trawlers should be using TEDs.

III. Summary of scoping comments received by NOAA Fisheries on the Notice of Intent to prepare an Environmental Impact Statement (EIS) for Reef Fish Amendment 28

The comment period was open from November 7 through December 9, 2013, and 159 comments were received. These comments may be viewed at http://www.regulations.gov/#!documentDetail;D=NOAA-NMFS-2013-0146-0001.

Comments in support of increasing the recreational sector's share of the annual catch limit often cited socioeconomic gains, reducing restrictions, and providing a better sense of fairness in setting the allocation. Comments in support of the status quo or increasing the commercial share of the annual catch limit often cited fairness because the commercial sector does not exceed their quota due to better accountability of catches, the importance of providing seafood to the non-fishing public, and protecting commercial sector investments in the fishery.

The following is a breakdown of the comments. Table 1 shows the number of comments supporting each of the alternatives in Amendment 28.

Table 1. The number of scoping comments recommending each Amendment 28 alternative.

Alternative	Number of comments recommending the alternative
1	29
2	1
3	0
4	3
5	2*
6	19

*Two commenters in support of Alternative 6 indicated they could also support Alternative 5

Other allocation alternatives were recommended by commenters and are shown Table 2.

Table 2. Other allocations recommended in scoping comments on Amendment 28.

Receational:commercial allocation	Number of comments in support of the allocation
10:90	1
50:50	3
60:40	3
75:25	1
100:0	6

Twenty-one comments recommended an alternative similar to Alternative 5 except that if the red snapper quota is greater than 9.12 million pounds (mp), allocate 90% rather than 75% of the amount in excess of 9.12 mp to the recreational sector and 10% rather than 25% to the commercial sector.

IV. Summaries of comments received at public hearings (March 10-20, 2014).

Orange Beach, Alabama
March 10, 2014

Council/Staff
Johnny Green
Assane Diagne
Charlotte Schiaffo

68 members of the public attended.

Gary Royal- Charter
Mr. Royal noted that he had been running a charterboat since 1997, and stated that the only sector being punished was the commercial sector. He did not support taking any commercial allocation away and suggested that the commercial sector be allocated on historical numbers. He supported Alternative 5. He added that the fishery needed to work under a system that allowed the recreational sector to fish year-round, maybe with tags, and that flexibility in regulations was needed so that everyone could catch more fish.

Randy Boggs- Charter
Mr. Boggs supported Alternative 1 and stated that the Council was pitting the sectors against each other and he could not support reallocation, or anything else, until the recreational sector was brought into compliance. He added that Alabama could not control compliance by other states and should not be punished because recreational fishers in other states were going over their quotas. He advocated making the recreational sector more accountable.

Troy Frady- Charter
Mr. Frady noted that he had been attending Council meetings for five years. He stated that all sectors needed to move towards a system that allowed flexibility. He said that the recreational harvest was running 54-56% each year even though their quota was 49%, and that about 140,000lbs of snapper were being fished across the Gulf daily. He believed that Amendment 28 was premature and suggested a fish tag system. He recommended tabling Amendment 28 until a better data collection plan was in place for about two years in order to get accurate data.

David Walker- Commercial
Mr. Walker supports Alternative 1 and stated that the amendment would cause instability in the commercial sector and rewarded the recreational sector for going over their allocation. He said that the IFQ program had been a success and that it should not be changed by the Council. He added that any allocation taken away from the commercial sector took fish away from the American consumer and that reallocation unfairly penalized the commercial sector, which followed the rules. He noted that the commercial sector had already taken a huge quota reduction while the recreational sector kept going over theirs. He believed that the commercial sector deserved to keep their historical quota and that the recreational sector needed to be held accountable. He indicated that SESSC votes are in question because one of the members may be

ineligible. He suggested that the SESSC needed to review all data on the Amendment, and that the Council should take no action until this was done.

Shawn Miller- Recreational
Mr. Miller felt that the amendment was good. He suggested that the fishery be shut down in June for a few years to allow the fish to spawn, and maybe even shut down for three months to all sectors, even though people would lose money in the short term. He believed such an action would allow longer seasons eventually due to more fish being spawned, thus benefitting all sectors.

Blakeley Ellis- Recreational
Mr. Blakely supported Preferred Alternative 5. He felt it was long overdue and was happy with any increase.

Ben Fairy- Charter
Mr. Fairy supported Alternative 1 (No Action). He noted that there was a commercial lawsuit against NMFS because of the recreational sector continuously going over their quota, and that the length of the season depended on the upcoming ruling. He did not support reallocation and stated that there needed to be three sectors: recreational, charter, and commercial.

Tom Ard- Charter
Mr. Ard supported Alternative 1. He stated that the amendment was a band aid, and that he supported dividing the charterboat industry from the recreational.

Bobby Kelly- Charter
Mr. Kelly supported Alternative 1 and the separation of the charterboat industry from recreational. He wanted better data collection methods and supports sector separation.

Joe Nash- Charter
Mr. Nash supported sector separation and believed the commercial and charterboat industries were penalized for the recreational fishers going over the allocation. He advocated more accountability in the recreational sector and noted that derby fishing was too hard on the charterboat industry.

Dale Woodruff- Charter
Mr. Woodruff advocated tabling Amendment 28 and expressed concern over there being no accountability in the recreational fishery. He stated that if the commercial sector had to give up some of its allocation, that it should be put in a program for everybody. He urged everyone to contact their representatives in Congress to have a plan applying only to Alabama, since other states were being non-compliant and punishing Alabama. He stated there needed to be a better reporting system.

Gary Malin- Recreational
Mr. Malin did not believe the recreational sector was going over its limit. He noted that bad weather had limited fishing days and advocated a tag system for all sectors.

Mike Rowell- Charter
Mr. Rowell expressed concern that the sectors were being pitted against one another. He supported Alternative 1. He felt that Alabama was being punished because of non-compliance by other states.

Scott Drummond- Founder of an outdoor trade organization
Mr. Drummond stated that the data the Council uses are not accurate, and that economic studies needed to be done for each amendment. He said that commercial fish landings had to be documented while recreational did not, and that estimates were used instead of hard data. He supported Alternative 1.

Jim Tinker- Recreational
Mr. Tinker agreed with other speakers that the sectors were being pitted against each other. He believed the Council was not dealing with issues or solving problems and that there were plenty of snapper in the Gulf. He stated that the season was too short, which was economically devastating and that the size limits caused too many fish to be thrown back, increasing mortality. He said the recreational industry supported the Gulf economy, and that the percentage of quota was not the problem, the counting of the fish was the problem. He did not support the amendment and believed the recreational fishery in Alabama was being destroyed. He also stated that red snapper were overwhelming other fisheries and the Council was practicing poor conservation.

Angelo Depaula- Recreational
Mr. Depaula stated that the problem was not the amount of fish being caught, but the counting method being used. He advocated a smaller limit, noting the mortality rate was over 50%. He supported an increased quota and a longer season (6 months).

Mobile, Alabama
March 11, 2014

Council/Staff
Kevin Anson
Assane Diagne
Charlotte Schiaffo

46 members of the public attended.

Ben Fairy- Charter
Mr. Fairy supported Alternative 1. He noted that there was a federal lawsuit by the commercial industry over the recreational overages, and that the outcome of that lawsuit could determine allocations. He urged the recreational sector to be accountable and advised against the sectors pitting themselves against each other.

George Null- Boat dealership
Mr. Null stated that his business' sales of offshore boats had decreased in the last 3-4 years causing an economic impact to his business.

Larry Huntley- Commercial
Mr. Huntley supported Alternative 1, noting that giving more fish to the recreational sector took fish away from consumers, and that increasing their allocation would reward them for going over their allocation.

David Walker- Commercial
Mr. Walker supported Alternative 1, stating that allocation was not the problem; it was the fishery management process that was the problem. He stated that the SESSC needed to review the amendment before the Council made a decision and said that the Council should reconvene the SESSC because one vote was cast by someone who may not be eligible to serve on the SESSC.

Donald Waters- Commercial
Mr. Waters said that numerous fish species were given to recreational fishers and that to give them more of the red snapper quota was unfair. He stated that the recreational fishery needed to be held accountable and supported Alternative 1.

Edwin Lamberth- Recreational
Mr. Lamberth supported Alternative 6, but would be satisfied with Alternative 5. He stated that the recreational fishery provided $10 billion in economic impacts. He emphasized that the Council needed to reallocate fairly based on the recreational industry's economic impact and that the data the Council was currently using to reach its allocation decisions was over thirty years old.

Charles Rodriguez- Boat dealer
Mr. Rodriguez did not have a preferred alternative, but suggested that there be a 3-month season with a 3-fish limit. He did not feel any of the sectors should have fish taken away from them and that the red snapper population had rebounded enough for everyone's allotment to be increased.

Scott Drummond- Outdoor trade organization
Mr. Drummond stated that the data the Council used are bad and that no one should have any fish taken from their sector. He advocated cancelling the amendment, saying it was not needed.

Charles Beach- Charter
Mr. Beach supported Alternative 1. He stated that the stock had recovered and that the Council was not taking into account that the commercial fishery was dealing in pounds and not numbers. He pointed out that the shrimping industry had collapsed so there was very little bycatch of juveniles which increased the stock. He added that a 40-day season was too short and that the Council needed to reassess its stock assessment methods and lower the commercial size limit since it was hurting the commercial industry.

Tom Steber- Alabama Charter Association
Mr. Steber supported Alternative 1 and stated that the Council was pitting the sectors against each other.

Avery Bates- Commercial
Mr. Bates advocated more reef building to increase stocks, noting that Alabama had a successful program. He stated that the commercial fishery was being pushed out by too much regulation, and that the fish count was incorrect. He wanted fair and equitable allocation and emphasized that the best scientific data needed to be used in Council decisions. He did not support the amendment.

Panama City, Florida
March 12, 2014

Council/Staff
Pam Dana
Assane Diagne
Charlotte Schiaffo

93 members of the public attended.

John Anderson- Commercial
Mr. Anderson supported Alternative 1 and stated that taking fish away from the commercial sector would punish the consumer and the industry that followed the rules.

BJ Burkett- Charter
Mr. Burkett supported Alternative 1 and stated that there were too many loopholes for the recreational industry. He advocated a 150-day recreational season.
Jack Melancon- Commercial
Mr. Melancon supported Alterative 1.

Pam Anderson- Charter
Ms. Anderson supported Alternative 5, stating it was the most fair to all sectors and would create more stability in the fishery. She noted that an economic study had been done showing that taking away fish from the commercial sector was equitable and would be best for the nation. She stated that the overages reported in the recreational sector were due to bad data from NOAA. She suggested a Gulf reef permit to give researchers more accurate data.

Ron Schoenfeld- Recreational
Mr. Schoenfled supported Alternative 4. He suggested an odd-even day season in order to double fishing days, and to have fish counted when boats come in to dock.

Bart Niquet- Commercial
Mr. Niquet supported Alternative 1 and stated that recreational anglers needed to be held accountable.

Bob Zales- Charter
Mr. Zales supported Alternative 5 and stated that sector separation would not work, and that separation would increase the commercial quota at the expense of the recreational. He added that data being used were not accurate.

Jackie Rinker- Media
Ms. Rinker supported Alternative 4 or 5, stating that money spent in the communities by recreational anglers was important to keep local communities viable.

Chuck Guilford- Charter
Mr. Guilford supported Alternative 6. He stated that allocation had put a lot of people out of business.

Kenyon Gandy- Charter
Mr. Gandy supported Alternative 1 and noted that there was too much discards in the industry because of size restrictions.

David Krebs- Dealer
Mr. Krebs supported Alternative 1. He advocated getting rid of the size limit. He stated that the current recreational management system was designed for failure.

Mike Whitfield- Charter
Mr. Whitfield supported Alternative 1. He stated that there were too many participants in the recreational fishery and that a count of them needed to be done.

Dewey Destin- Charter
Mr. Destin supported Alternative 1. He stated that the Council needed to change its management plan and get rid of kill and release. He stated that taking away fish from the commercial sector was not fair, and that while he did not object to an increase in the recreational quota, it should not be done at the expense of the commercial sector.

Curtis Culwell- Recreational
Mr. Culwell supported Alternative 5.

Russell Underwood- Commercial
Mr. Underwood supported Alternative 1. He stated that the commercial IFQ system was working well, and that the Council recreational management system was flawed. He suggested a tag system.

Candy Ansard- Recreational
Ms. Ansard did not support the amendment, saying none of the options solved the problem. She suggested building more artificial reefs and pursuing an aggressive program against lionfish.

Charlie Saleby- Charter
Mr. Saleby supported Alternatives 4, 5, and 6. He stated that the size limit needed to be smaller and that the season was too short, noting that smaller boats were put in danger by having to go far out in bad weather to fish.

Donald Whitecotton- Charter
Mr. Whitecotton supported Alternative 6, and agreed that bad weather limited fishing days.

Stewart Miller- Charter and commercial
Mr. Miller supported Alternative 1.

Billy Archer- Recreational, charter, and commercial
Mr. Archer supported Alternative 1 and suggested tabling the amendment. He also recommended a tag system for the recreational sector and sector separation.

Kerry Hurst- Commercial
Mr. Hurst supported Alternative 1. He recommended a national plan for both sectors and more accountability for the recreational sector.

Dean Preston- Recreational
Mr. Preston supported Alternative 6. He agreed that lionfish were a problem and stated that the amendment pitted the sectors against each other. He believed that the commercial sector had too large an allotment of a public resource.

Frank Gomez- Commercial
Mr. Gomez supported Alternative 1.

Ken Vandirzeyne- Recreational
Mr. Vandirzeyne supported Alternative 6.

Gary Jarvis- Charter and commercial
Mr. Jarvis supported Alternative 1 and advocated a management plan for the recreational sector. He encouraged Amendment 40 to be taken to public hearings and stated that Amendment 28 was the result of recreational lobbying.

Mike Guidry- Recreational
Mr. Guidry supported Alternative 4. He encouraged more accountability in his sector and also asked for more fishing days.

David Underwood- Commercial
Mr. Underwood supported Alternative 1.

Bruce Craul- Restaurant owner
Mr. Craul supported Alternative 1 and stated that better data were needed.

Chris Niquet- Commercial
Mr. Niquet supported Alternative 1 and urged the Council to get more accurate data. He stated that reallocation would cause instability in the fishery.

Ben Seltzer- Commercial
Mr. Seltzer supported Alternative 1.

Frank Bowling- Recreational
Mr. Bowling supported Alternative 5.

Jason Smith- Charter
Mr. Smith did not support the amendment, stating there was not enough data to make a choice.

Gulfport, Mississippi
March 12, 2014

Council/Staff
Corky Perret
Emily Muehlstein
Phyllis Miranda

45 members of the public attended.

Robert Cullimber-
Mr. Cullimber supports Alternative 4.

Tony Dees- Owner of retail fishing store
Mr. Dees supports Alternative 4 because in the last ten years he has seen an approximately 80% decrease in tackle sales and 90% decrease in SCUBA sales for spearfishing.

Donny Waters- Commercial
Mr. Waters said the ITQ program initiated 8 years ago is probably the most successful program initiated by Council; 40% less fish are killed to bring quota to the dock. He doesn't feel it's right to reallocate fish from a sector that has been accountable, and commercial fishermen should not be penalized for the Council's inability to create a good fishing plan for the recreational fishery. He feels that the recreational sector wants to be accountable. The commercial sector cannot take a fish home, and they are feeding 97% of the population that cannot go recreational fishing. He does not want to take anything away from anybody but feels that this allocation will wreak havoc in the commercial fishery. His money goes back into his business. The answer is not to take from one sector to give it to another. This amendment does not promote any conservation because of the bycatch in the recreational fishery and it will create bycatch in the commercial fishery.

FJ Eicke- Recreational
Mr. Eicke supports Alternative 5 because the commercial sector won't lose anything. The recreational sector has increased in numbers significantly since the initial allocation was set.

Recreational angling has a tremendous economic and social value. The initial allocation was set using the time period of 1979-1987 and there was no recreational data at that time so the initial allocation was flawed from the start. The recreational fishery has put up with limited seasons and limited bag limits, and he feels that now there is a chance to do something right. The Council should reallocate on a fair and equitable basis.

Jordan White- Recreational
Mr. White prefers Alternative 1 because he doesn't support taking any red snapper quota away from commercial fishermen.

David Walker- Commercial
Mr. Walker does not want to attack the recreational fishermen themselves; it's their management plan that is the problem. The seafood industry is not the problem. Less than 2% of anglers in the U.S. are recreational and most of the nation depends on the seafood supply chain to get seafood. The commercial management plan is working. A new management plan needs to be developed for the recreational fishery, and reallocation is not the answer. Recreational fishermen need to get proactive not just in developing a new management system for themselves. Robbing from Peter to pay Paul is not the answer. Commercial fishermen had to make sacrifices. Alternative 5 does not enhance the net benefits of fishing, it only increases fishing days in a minor way. You could reallocate 100% to the recreational sector and they would still continue to lose days. Economic value cannot be the sole purpose for allocation. He supports Alternative 1: no action, because the commercial sector should not be penalized for following the rules. Reallocation is not justified when it comes to conservation. Also, there should be an outreach program (like the RAP sessions) for the seafood supply chain.

JR Titnus- Recreational
Mr. Titnus said the recreational season lengths projections are dependent on estimated weights and catches. Commercial fishing harvest is not an estimation. He has only been asked about his harvest once. There needs to be reliable data to make any decisions.

Tom Becker- President of Mississippi Charter Boat Captains Association
Mr. Becker said the fishing season is too short and he has different feelings about when to fish throughout the year. He supports Alternative 5. He has seen that commercial fishermen will drive by while he's fishing, take his number, and then fish his spot and empty them out.

John Bullok- Recreational
Mr. Bullok supports Alternative 1. Before the Council decides where the fish go, there needs to be a better way to check the recreational fishermen to determine if they deserve more pounds. When he goes out to the rig under this 2-snapper per person limit, he sees dead discards all over. Recreational fishermen are hi-grading and not venting. Stability of the recreational fishing sector should not be measured in length of season or allocation, but in the quality of fish. Commercial fishermen are checked 100% of the time for both harvest and other regulatory compliance, but he as a recreational angler hasn't been checked in 5 years.

Johnny Marquez- Executive Director of CCA Mississippi
Mr. Marquez supports Alternative 5 because for many years the season has gotten shorter and shorter and something different needs to be done. The initial allocation is outdated, it didn't take into account the economic and social concerns for the fishery. There have been tremendous changes in the fishery since that initial split. Economics should play an important role in the allocation decision. As the species rebounds, Alternative 5 wouldn't take away from the commercial fishery; it only takes the excess. We're back at the high-water mark for the commercial fishery and it's fair and equitable to give more to the recreational sector.

Nathan Witonovich
Mr. Witonovich supports Alternative 5.

Phillip Horn- 3rd generation seafood dealer and former Council member
Mr. Horn has been involved in the red snapper war since it began. He was involved in the development of the IFQ program and supports Alternative 1. The commercial industry has a tough row to hoe. Texas has never closed their state waters; Florida left their fishery open one year for a rodeo; Louisiana is open on weekends and claiming 10 miles; yet, the states all receive money for enforcement. The commercial industry suffered when quotas began and snapper needed help. The industry was closed over and over, and the agencies and the charter captains used to say 'catch something else.' Alternative 5 would only increase the recreational season by 4 days. The year the 9.12 million pound quota was put in place, the recreational sector overfished their quota. Members of the commercial industry were forced out when the IFQ program was put in place and the same may need to happen in the recreational fishery to reduce effort. The biggest problem is stock assessments. We continue to increase quotas. The red snapper average size started at 2 pounds now we're catching bigger fish. We can't predict the weather with 8 different models, and the red snapper stock is managed under a single model; we need to argue about assessments not allocations.

Gary Smith- Recreational and AP member
Mr. Smith would like to correct some errors. Last year in a red snapper Advisory Panel meeting these issues came up: there needs to be a plan to let new people in. It needs to be addressed. He does not support any alternatives because none of them do anything to solve the recreational issues. The problem is the data and the people in charge. It's the NMFS's Council and the Council members just go along without doing anything. Dr. Crabtree is responsible because NMFS has openly said they want a catch and release fishery in the recreational sector. Mr. Smith wants accountability. He has asked for a boat permit and he only gets excuses as to why he can't do it. He does not believe it is possible that the recreational sector catches the number of fish that NMFS says they do. It is about shutting the Gulf down. He said we need to ban together and demand accountability.

Keith King- Owner of the largest boat dealer in Mississippi
Mr. King supports Alternative 5 because it's a compromise that doesn't impact the commercial sector in any way. Council needs to find a way to increase the accuracy of the data. The initial allocation split was determined long ago and was based on failed info. The data collection methodology is inaccurate. The economic benefits of the recreational sector are not being considered. The shortened season has impacted the sale of offshore boats and that needs to be

taken into consideration. He wants accurate data and feels decisions should not be made today based on the data we do have. The stocks are improving, and although there is a problem with the harvest count, it's obvious that effort is overstated.

David Floyd-
Mr. Floyd supports Alternative 1, do not reallocate red snapper.

Nicky Cvitanovich- Currently recreational; has done commercial and charter
Mr. Cvitanovich said this shouldn't be a commercial vs. recreational fight. The Council needs to fix the recreational management plan so that the season isn't so short. It's also a problem that you can't catch snapper and amberjack at the same time. The fishery service doesn't want you to catch fish. Most everyone has shifted to inshore speckled trout fishing now. He supports Alternative 5, but would rather the recreational management plan be fixed.

Dustin Trochesset- 3rd generation charter captain
Mr. Trochesset supports Alternative 5. He is displeased with the handling of the red snapper fishery in the MSA. The Act was created to be fair and equitable to all fishermen. How is it fair for the commercial guys to have more fish and the luxury under the IFQ program to fish when they want? The recreational guys are given condensed time and commercial fishermen can target the spots before recreational anglers are allowed to fish. There is nothing fair and equitable about that. The charter industry is negatively impacted by the short season. They were cut short last year and had to cancel trips. He doesn't believe that 200 boats are fishing every day and wonders if the weather is taken into account. He would like the Council to be fair and equitable and there is not much that is fair about the commercial fishermen getting more allocation. The other states open their seasons and that hurts Mississippi, because the stuff they're catching counts against the Gulf-wide quota.

Scott Drummond- President of an outdoor trade organization
Mr. Drummond supports Alternative 1, because we don't understand the economic impact of what we do.

Kenner, Louisiana
March 13, 2014

Council/Staff
Harlon Pearce
Emily Muehlstein
Phyllis Miranda

48 members of the public attended.

Pierre Villere-
Mr. Villere said the current recreational allocation was set in the 1970's based purely on catch history. Using only catch history is a bad way to determine allocation. There are fewer boats in the commercial fishery than ever, and they continue to have the most harvest. What is the

impact of shorter seasons on bait shops, marinas, and hotels? At such a high price per pound, red snapper is not protein for America. Pollock is a more accurate example; it's cheap and there's lots of it. Counting every fish is the wrong path and it's a waste of time and resources. Trying to manage 1 million recreational fishermen is unusual and can't be done. The Council should set a bag limit and a decent season of 2-fish for the summer months, especially if the stock keeps expanding like it is.

James Schere- Charter and commercial
Mr. Schere supports Alternative 1. Transferring quota to the recreational sector won't help anyone, especially if the season remains open during the hottest time of the year. No one goes fishing only for red snapper; they catch 100 trout then go out for snapper. It takes one stop and 30 minutes of fishing and makes up a fraction of what's being caught in a fishing day. Customers don't book charter trips based on red snapper. It doesn't affect his [charter] business at the busiest fishing time of the year. Adding a few days won't help him and won't hardly affect any charter folks. Also, he doesn't think it will help private recreational anglers that much, because they're not targeting just red snapper on their trips.

George Heuey- Recreational
Mr. Heuey supports Alternative 5. From his fish camp, he catches trout near shore and then he runs his bay boat out to catch his two fish. His big problem is the verification of the recreational catch. If there was a way to count the recreational catch like the commercial catch is counted, then it would solve problems. But, that will never happen because of the number of ports and boats that recreational fishermen are using. The recreational sector gets the short end of the stick, and he thinks the allocation should expand in their favor. He loves to eat red snapper and wants it to remain in restaurants, and he wants charter fishermen to continue to have their business.

Dax Nelson – Commercial
Amendment 28 is wrong and Mr. Nelson supports Alternative 1. We've built this fishery. He remembers when we didn't have any snapper at all. Adding allocation to the recreational fishery won't help the recreational sector. The recreational sector has gone over its allocation in 6 of the last 7 years. If we do this amendment, it will only add two days to fish.

Steve Loop- Recreational
Mr. Loop is in favor of reallocation since it hasn't happened for the last 20 years, and the recreational sector is in need of a greater share of the snapper in the Gulf. The recreational sector gives more income to the government with all the taxes and money they spend to fish. The recreational sector has never caught over their limit, the federal government overestimates. Commercial fishermen are sitting at home making money renting out their licenses; that's not right and it's not fair. The Council should do the right thing and reallocate to the recreational sector.

Louis Valet- Recreational
Mr. Valet supports reallocation. He has seen so many changes in the Gulf since he started fishing. He doesn't think the changes in stock abundance happen because of fishermen fishing. God intended to feed the world with fish; that's why a fish lays a million eggs. What needs to be

done to promote those million eggs to grow into a million fish? We need to focus on clean water, habitat, and food. Farmers understand how to plant and grow plants but the stupid people regulating fish in the Gulf don't. Fish need to eat, but we wipe out porgy so that the red snapper won't be able to eat and grow. These fish have to eat something and they'll eat little red snapper and trout. The bonita and triggerfish are gone because they have nothing to eat.

Thally Stone- Commercial
Mr. Stone supports Alternative 1. He is just now making a decent living as a commercial fisherman. He earned every pound of allocation he got and nothing was given to him.

Doug Hawkins-
Mr. Hawkings supports Alternative 1. The fish are coming back and the Council shouldn't change things. Giving the allocation to recreational fishermen won't solve the problems in the recreational fishery.

Russell Underwood – Commercial
Mr. Underwood supports Alternative 1. We have rebuilt the fishery both commercially and recreationally. It took seven years to get a true stock assessment before the quota was increased. The problem is not the average guy who wants to catch a red snapper in the afternoon; the problem is with the Council system itself and whether the use of all the tools in the toolbox has been considered. He is worried about the resource. Seven years ago, there were hardly any people at these meetings. There was hardly any fish either; now, we have brought the fishery back. It was overcapitalized commercially, and there used to be a lot more boats. But, the IFQ program reduced the fleet and brought the fishery back. Recently, the commercial sector got a quota increase, and now they want to take it back. 500,000 pounds of snapper will only give an extra 2-3 days for recreational fishing. Is it fair for Texas to fish year round and the rest [of the Gulf] has a 30 to 40-day season? The problem is not allocation, the problem is the Council system.

Charlie Capplinger - Recreational
Mr. Capplinger said the system doesn't work. Recreational fishermen spend a lot of money on fishing. He supports Alternative 5, because it does not take any fish from the commercial sector. If there is additional allocation, than everyone will get more fish. The allocation is based on old data from 20 years ago. The demographics in the Gulf have changed. The economic value of the recreational fishery is enormous, and the number of fishermen targeting red snapper commercially is small. The allocation should have been different a long time ago. No one targets only red snapper, and no fisherman can fish during the week. The season is not set up for a recreational fisherman at all. The Council should increase the recreational sector's allocation to achieve the greatest economic impact and social impact for the largest user group.

Daryl Prince- Commercial
Mr. Prince supports Alternative 1. When he first started, there was hardly any fish in the Gulf. All the regulations have allowed the stock to improve because commercial fishermen have stopped hammering them. There are plenty of fish. Taking them from the commercial guys will not solve a thing. Sports fishermen won't have a better fishery by taking away allocation from the commercial sector.

Christopher Gray - Commercial
He used to wonder where the fish were, and now they're starting to see lots of fish. If you take 500,000 pounds from him by selecting Alternative 5, you're throwing him in the back of the bus. He should be standing in the front, because he made the fishery better as a commercial fisherman, by making sacrifices to rebuild the stock. He supports Alternative 1.

Michelle Malony- Louisiana Wildlife Federation
Ms. Malony said that outdoor recreational public access is just as important as habitat, and she expects improvement in data collection to show a robust recovering stock. She supports Alternative 5.

Gunner Waldmann- Recreational
Mr. Waldmann supports Alternative 5 with some caveats. The data collection is antiquated and needs to be improved. Alternative 5 does not take anything away from commercial fishermen. If the quota is over 9.12 mp, then the commercial sector will still gain 25% more of the allocation. As a safety consultant, he won't work for a company that removes oil platforms. It shouldn't be okay for them to blow up platforms and kill thousands of pounds of fish without anything being allocated for that damage.

Chuck Laday- Recreational
Mr. Laday is a member of CCA and an avid inshore angler. He occasionally fishes for red snapper. He would like to fish more but due to the short season, weather, and fatherhood, he doesn't have as much opportunity as he wants. His sons would really like to fish if there is a longer season. He supports Alternative 5 and applauds the Council. It's a fair and modest change to the current allocation that is based on old data. Under Alternative 5, the commercial sector loses nothing.

Robert- Recreational
Robert believes Alternative 5 seems like the right thing to do, adding that we all agree that something needs to be done for the management of the resource for our kids and grandkids. We need to work with the Council to come up with a different way to manage. We all need to come together to solve the problem because the fish are here. We don't see the croakers and triggerfish like we used to and we need to use data that isn't 25 years old. The Council is managing for the whole Gulf, and Louisiana is different than the other states. We need to come up with a subcommittee to recommend to the Council how to manage Louisiana. CCA is a good group that cares about conservation, and everyone should ban together to come up with meaningful management and [supporting] studies.

Chris Marcusio-
Mr. Marcusio is in favor of Alternative 5. In the last year, he has worked with some recognizable and seasoned fishery managers, economists, and advocates across the country to develop a report to reflect the culture and needs of the saltwater fishing public. One recommendation that came from the report was to examine allocation. It is set based on old data. If we're not managing fish for the best socioeconomic value and for conservation, then why are we managing? All allocations need to be examined, not just red snapper.

Woody Cruse- Recreational
Mr. Cruse said commercial and recreational fishermen are being pitted against each other, and it's unfortunate that we can't manage the resource together. He is a private angler and time on the water with his family is being limited. He has an expensive boat and he targets red snapper. It is terrible that amberjack is closed when red snapper is open. He is not anti-commercial, he just wants more time to fish. He has little confidence in the recreational harvest numbers.

Steve Tomeny- Commercial
Mr. Tomeny supports the Alternative 1 -no action. At this time, taking fish away from the commercial sector to add an extra two days to the recreational season is a no win situation. The system the recreational anglers are fishing under is broken. Adding pounds won't fix it, and the allocation is always overrun. The recreational fishery is an unlimited user group and as the fishery has recovered, more and more people want to go. The numbers should be lower than they are and he advocates a tag system. Sector separation would create more accountability, and we're still pushing for alternative management ideas. The SESSC should review Amendment 28 before final action is taken.

Ed Petrey- Charter and commercial
Mr. Petrey is against reallocation and supports Alternative 1. Reallocation won't solve anything and the only way we will solve something for the recreational sector is using some type of tag system to figure out what they're catching. The population has increased a lot and we're doing a lot better charter-wise. We need to leave allocation the way it is.

James Bruce- Commercial
Mr. Bruce said that when the industry signed up and voted for the IFQ program, they got cut off. Now for the first time, people are here in the room saying they're not taking fish from the commercial guys that made sacrifices. The recreational fishermen need sector separation and a tag system. The pie is only so big, and not everyone can catch fish. That's what the commercial guys had to do; limit entry. It's time for the recreational sector to do something. Keep allocation at status quo and choose Alternative 1.

Bobby Jackson-
Mr. Jackson is in favor of Alternative 1. He feels that everything should be left as it is now. All the people should be glad they live in Louisiana where you can go out and catch trout and mangrove snapper, and the state is giving us extra days in state waters. He doesn't think that 2 or 3 more days of fishing is worth taking away from the commercial fishermen.

Brent Fay- Recreational
Mr. Fay thinks the population is healthy and that management is flawed. He supports Alternative 5. As a citizen of Louisiana, he thinks it's wrong if he can't fish but he can go to the grocery store and buy fish. He thinks he should be able to catch red snapper at any time.

Andy Leblanc- Recreational
Mr. Leblanc is more of an inshore fisherman and only has a 22 foot boat. The weather limits his red snapper fishing. He supports Alternative 5, because it's not doing any harm to the commercial guys. The restaurants and stores won't run out of fish.

Joe Macaluso-
Mr. Macaluso said the Council has driven a wedge between the commercial and recreational sectors. We have fish in Louisiana; Florida and Alabama don't. We have fish and we're fighting about who gets to catch more than the other guys. He has seen more than his share of mismanagement, but in this instance, there is a problem that won't be solved by Alternative 1 or 5. We have fish and we need to make sure that Louisiana has the right amount of red snapper they deserve (70% of the fish with 20% of the effort). This is a band-aid and we need the wound to heal.

Bill LaJune- Recreational
Mr. LaJune supports Alternative 5 with some changes. A recreational season should be on weekends, and the state does a good job of knowing how to best govern.

John Abair-
Mr. Abair supports Alternative 5 because it's a fair distribution of the resource. We all need to ban together and attack the administration that is removing rigs. We don't need to argue over the amendments as much as we need to stop rig removal.

John Cappell- Recreational
Mr. Cappell supports Alternative 5. He advocates for future generations. The fishery has improved and it's easy to wipe the snapper out. We need a bigger pot and we need habitat. We need to stop [removing] idle iron. The vertical reef structures hold fish and make fish. We also need better data collection. We don't need to fight each other; we need a bigger, better managed pot of fish.

Walter Heathcock- Commercial
Mr. Heathcock is against Amendment 28 and prefers Alternative 1. Changing the allocation won't solve anything. Red snapper is already a pricey fish, and he doesn't want to increase the price any more. All the fish commercial fishermen catch are going to the American public. This quota was set a long time ago and it has been fair for 24 years, but somehow it's a problem this year.

Andre Thomas-
Mr. Thomas supports Alternative 5. He feels it is a public resource and should not belong to the private sector. He said we need to address how fish are counted. He would like to divide the Gulf and manage fish separately.

Archie-
He is against any type of reallocation and supports Alternative 1 because it's a public resource. Not everyone that wants to eat fish has the opportunity to fish. The American public needs access to seafood. There are lots of fish that commercial fishermen can't catch, and it seems like the recreational fishermen always want more.

Dante Nelson-
Supports Alternative 1 because the commercial fishermen should still have fish. Fish are going to continue to be here until we're dead and gone.

Corpus Christi, Texas
March 17, 2014

Council/Staff
Robin Riechers
Emily Muehlstein
Karen Hoak

38 members of the public attended.

Charlie Alegria- Morgan Street Seafood owner
Mr. Alegria supports Alternative 1 because the commercial guys seem to give things up and never get them back. He thinks we should do nothing and leave businessmen alone.

Blaine Wise-
Mr. Wise supports Alternative 5 because it's a win-win situation for both sides.

Shane Cantrell- Charter
Mr. Cantrell supports Alternative 1. He opposes action because it gives a false promise to the recreational sector and won't increase their season at all. We will actually still be losing days because Florida is non-compliant. This isn't a sustainable fishery management plan. It violates National Standards 1 and 4, and is missing accountability measures to keep recreational anglers within their allocation.

Alan West- Recreational
Mr. West supports Alternative 5, as it would benefit recreational fishermen without cutting into commercial fishermen's allocation. He believes it makes good sense, because there are a substantial number of recreational fishermen in the state.

Ron Dollins- Recreational
Mr. Dollins supports Alternative 5. He supports the 400 commercial fishermen, but it's time to give fairness to thousands of recreational fishermen. Recreational fishing supports many varied industries, and they don't fish for profit; they fish for the love of it. The value of fishing is not measured by numbers at the dock. It's the time they [recreational anglers] spend on the water and building relationships, and the large number of people using the resource need the support of fisheries managers.

Don Wilkinson-
Mr. Wilkinson supports Alternative 5 because it offers the best economic benefit. The commercial harvest wouldn't be diminished, it would actually increase. He suggests the following: adopt an adaptive management plan that has demonstrated its effectiveness in other fisheries such as Atlantic striped bass. Stop all fishing during spawning and allow commercial fishing to be done after peak spawning in June-August. This would allow an increase in productivity because you're not removing the larger spawning fish from the resource, and this wouldn't cause any net loss for the commercial fisherman. Consider segmenting the Gulf

according to recruitment; he has heard and supports the idea of dividing the stock, perhaps at the Mississippi River.

CJ Garcia- Business owner, commercial red snapper fisherman
Mr. Garcia supports Alternative 1 and opposes reallocation because it won't solve the problems in the recreational fishery. Anglers consistently overharvest in the recreational fishery and if given more fish, will over harvest more. It will also cause instability in the commercial fishery. Increasing the amount of pounds won't decrease the recreational overage. He suggests working with the recreational fishermen to give them a real solution to the problems in the recreational fishery. The SESSC should review the analysis of Amendment 28 before the Council takes final action; their vote was null and void because a member of the SESSC shouldn't have been there. They should re-vote before the Council takes final action. This is honestly offensive to those who make a living on the water.

Tylor Scott- Commercial
Mr. Scott is new to the fishery and opposes reallocation because it doesn't solve the problems of the recreational fishery and will cause instability in the commercial sector. He supports Alternative 1.

Nena Hale- Owns a business catering to recreational fishermen
Ms. Hale said it's hard for her to have to take a stance on this issue, because without commercial and recreational fishermen, Port Aransas wouldn't be the town that it is. There is an abundance of fish now, and there are so many that you have to release that die while targeting other species. She is not sure where she stands on this issue but feels that there has to be a middle ground that will help both sectors. It is recreational fishers who come to her boutique; they support her business and she depends on them for her livelihood, so she wants them to have more fishing opportunities.

Ken Sims- Boat captain; has worked in both sectors
Mr. Sims opposes reallocation and supports Alternative 1 because it won't solve any problems. This needs to be solved with a different way of managing the recreational sector. We should try tags or licenses like the red fish program in Texas. Giving more fish to the recreational sector will ensure higher discard mortality, because they continue to fish and discarded fish float off dead and are then eaten by other predators, which is ridiculous. Fifteen years ago, fishermen used to struggle to catch fish. What we are doing is working. Today, the snapper are huge. Commercial fishermen are not harming the rebuilding plan because they are accountable. What we're doing in the recreational sector is wrong; charter guys need their own regulations, and everyone needs to play by the rules.

Scott Hickman- Charter and commercial
Mr. Hickman said the CFA has been begging for a new management system for the recreational fishery for 5 years, and he is disappointed that this is what we get. We're going to take fish from an accountable fishery and dump it into the unaccountable side for two more fishing days? That is silly and won't help his charter business. Until we work to get a new management system, we're never going to fix our problems. Why are we working on this instead of Amendment 39 [regional management], where Texas can manage their own fish through tags, or however they

want? The Council needs to do something different. He supports Alternative 1, no action on this amendment.

Pete Petropoulos- Recreational
Mr. Petropoulos is a capitalist and believes there is no reason to take anything from the commercial fisherman. He supports Alternative 1.

Kevin Haller- Charter and commercial
Mr. Haller sees both sides and opposes reallocation because it doesn't solve the problems in the recreational fishery. It will cause instability to the commercial fishery, and the recreational sector will continue to overharvest their allocation without accountability. He supports Alternative 1, status quo. The recreational sector needs a real solution to protect the resource. The SESSC should review the analysis, and it should be re-done before the Council takes final action.

Mike Hurst- Representing S.E.A.
Mr. Hurst does not think it's right that anglers have 20 days to fish during the worst wind of the year. He prefers Alternative 6, but since that option was not on the table to solve that problem, they would like to ask for Alternative 5.

Norman Oats- Recreational
Mr. Oats was fishing in the 1980's when the stock was ok. He then came back in 2001 when it was very hard to catch a snapper. Now, for 10 years they have only had a month of fishing. If we don't increase the quota, we're all in trouble. He supports Alternative 5 because he wants to fish more than 30 days a year. Under that alternative, if the ACL is increased we all benefit. The Council is losing credibility because the ACL is wrong. Nice size snapper are everywhere. He says to do more offshore research and see; don't just look at the closest rigs, but study some hilltops and use data that is not 20 years old. Start with a 3 month season and a 4-fish per person bag limit and if the stock decreases, then cut it. Do real research. He catches snapper in 35' of water.

Corey Garcia- Commercial
Mr. Garcia opposes reallocation and supports Alternative 1 because it will not solve problems in the recreational fishery, overharvests will continue, and [reallocation] will cause instability in the commercial sector. He suggests working with recreational fishermen to give them a real solution like tags so they can fish year round. There are plenty of fish out there and the Council needs to find a way to let them fish. The SESSC should review the amendment before the Council takes final action.

Mike Miglini-
Mr. Miglini said Amendment 28 is an insult to those trying to actually get a fishery management plan in place that will bring results. It will not solve the problems of the recreational fishery and will result in further overharvest. It's not the private recreational angler or the charter industry's fault that the Council has consistently failed to address a management system that provides both accountability and flexibility. The recreational sector needs to end derby fishing and start using tags for private anglers, just like the red drum system in Texas, so they can fish on their schedule

not when the government tells them to fish. The charter guys need their own sector allocation. Fishermen need to give up good harvest data from recreational anglers on private boats, from charter/headboats, and continue to get data from the commercial industry. This amendment and this reallocation is a false promise and the Council must develop a management plan that works. It's like putting more fuel in a boat that has autopilot moving in the wrong direction. We'll continue to see shorter and shorter seasons even with the reallocation of fish. We need to manage in a way that is efficient. Dumping fish back instead of using a tag system is an insult to conservation and the MSA. He supports status quo (Alternative 1). The SESSC should review Amendment 28 before the Council takes final action, because the initial vote to accept the methodology was null as a member was in conflict [of interest]. We have more than a ton of red snapper here, and we need a world class management system that allows us to harvest recreationally, in a sustainable manner, without wasting fish. Amendment 28 will not do that.

Gus Lopez- Commercial
Mr. Lopez supports Alternative 1, no action. They do this for a living; it's not for fun. If you're here you like to fish, but for commercial guys, it's their livelihood. It seems unfair to take from them and give it away for recreational purposes. It doesn't solve problems. Instead, he suggests letting the recreational sector fish whenever they want using a tag system. World class red snapper fishing is in our back yard, so why strip it back to making it hard to fish? Why take fish from an accountable sector and dump them into a system that isn't accountable? There are a lot of changes that will have to take place to make the recreational sector accountable like the commercial sector, which is law abiding, non-wasteful, and protective for the future generations. The SESSC needs to review Amendment 28 before the Council takes final action. What are the real reasons for changing allocation? He wondered what net benefits we were striving for.

Michael Matthews- Commercial and former headboat fisherman
Mr. Matthews is against the amendment; he supports Alternative 1, no action. He opposes reallocation because it won't solve the issues in the fishery and will cause problems on the commercial side. We need to work with recreational fishermen and find something that will work for them. Reallocation will only make things worse for the recreational fishery and for him.

Brenda Ballard- Recreational
Ms. Ballard supports Alternative 5. She doesn't want to take anything away from commercial fishermen. She doesn't have a yacht; she has a 25-foot boat and it's hard for them to get out. The inshore rigs are fished out and they have to go further. She only gets to fish five days out of the year, because she works for a living and she wants more opportunities to fish. She does not believe that Alternative 5 will hurt commercial fishermen in any way. Fishing is fun and she wants to be able to use the additional 75% to increase their opportunity for more fishing days.

Russell Sanguinet- Headboat operator
Mr. Sanguinet does not support any part of the amendment because there is an overabundance of fishing regulations. He is an active participant in the headboat cooperative (EFP) and he is 100% accountable. The problem is not the fish, it's the lack of enforcement and the bad management. The enforcement needs to account for everyone, not just the for-hire sector. This is a temporary patch on the problem, and it's not going to fix anything.

Paul Kennedy, III- Recreational
Mr. Kennedy gets out 8-10 times a year and he likes to take friends and family fishing. Red snapper is his most consistent fish. He doesn't understand the way it's managed and the limits put on them. The fish are so plentiful, he needs to avoid them and he doesn't understand management. He wants to bring a few home to eat and he can catch them in state waters. These are the strictest limits we have on any fish and they are the most abundant species. These regulations are ridiculous. Recreational fishermen are not being tracked like the headboats. It's his goal that recreational fishermen can fish year round. With a 2-fish per person bag limit, we will never overfish the red snapper. He is allowed to catch 10 speckled trout in the bays, but can rarely catch the limit. Red snapper is a mismanaged resource and the Council should give a longer season because it's not overfished. He wants to see some better data on catch. He wonders about how the management system is set up so when everyone goes out, they can catch their limit, but they are only allowed 2 fish.

Gary Hough- Recreational
Mr. Hough has seen a major comeback in the number of fish that are available in both the well-known and the more secretive spots. He supports an increased allocation for the recreational fishermen. Alterative 5 is the most palatable. He does think it should be tilted even more towards the recreational fishermen. On this side of the coast, it is dangerous to fish the first two weekends of snapper season because of the wind. The first of June is a horrible time to fish. There is no way the amount of recreational fish being caught could be harming the population.

Jerry Bravenec-
Mr. Bravenec said one of the biggest issues is accountability. The thing that concerns him most is that Texas continues to be penalized for other areas overharvesting red snapper. Red snapper don't move around too much. There has been a major rebound in the past five years, and he does not want to be penalized by the other areas overfishing. Alternative 5 is good for recreational fishermen without harming the commercial sector. TPWD needs to manage the resource and we need to be managing based on the fish we have locally.

San Antonio, Texas
March 18, 2014

Council/Staff
Patrick Riley
Emily Muehlstein
Karen Hoak

36 members of the public attended.

Jason Belz- Recreational
Mr. Belz wants a longer snapper season. It's rough in Texas and they like to catch billfish, but it's nice to have something to eat, something that they can catch on the way back in especially since they burn a lot of fuel. Red snapper are everywhere; they come to the surface in 300 feet of water. He does not want commercial fishermen to have 51% while the public has only 49%.

David Triplett- Recreational
Mr. Triplett questions the red snapper data and where the statistics are coming from that says recreational fishermen are catching the amount of pounds that they are. He does it as a hobby for his family, and there are very few days they can get out, especially with the high winds in June. The statistics seem very inaccurate, and he can't catch anything else. They run into them everywhere and, if you catch red snapper while trolling there is something wrong; the system is broken. He wants to see a longer season and he thinks there is a better way to count the catch in the recreational sector.

Michael Jacob-
Mr. Jacob said the rules don't reflect what anglers are seeing. He is conservation minded and follows the rules all the time. He used to have trouble catching snapper, but now you can free-line dead shrimp or troll wahoo lures in 200 feet of water and catch red snapper during amberjack season. He kills 10 snapper for every amberjack he catches. There is a nuisance with dolphin; you feed red snapper directly to them or the sharks. They are not releasing any of the fish. He catches between 25 and 75 fish during the entire season and feeds around 500 fish to predators. The commercial guys are likely more important and he doesn't want to take away from them. The amount of fish that go to the dolphins and sharks is insane. We are doing nothing about it but sitting on our hands. The numbers are inaccurate and it's getting hard to follow the rules.

Liz Hewitt-
Ms. Hewitt supports Alternative 5, or possibly Alternative 6. She wonders why we don't have a federal fishing license to track catch.

Ray Weldon-Recreational
Mr. Weldon supports Alternative 6, although it's not really reallocation. According to the American Sportfishing Association, recreational fishermen catch 2% of fish but provide 3 times more value to the gross domestic product than commercial landings. For every 1 pound of fish caught, they add $152 to the GDP. There are about 400 shareholders holding 51% of the red snapper fishery and they don't even put enough money back to cover the cost of monitoring the program itself. The EDF, restaurant chefs, and fishermen are using the slogan "protein for America," but they are getting wealthy providing fish for the wealthy at $18 a pound. No one will be put out of business with any of these reallocation options. There are less commercial fishermen now than ever catching more fish than ever. They are looking towards sector separation and inter-sector trading so they can sell quota to charter captains who will then sell them back to the recreational fishermen. I guess the commercial fishermen don't really care about feeding America. Mr. Weldon sat on the Ad Hoc Private Recreational Data Collection Advisory Panel and has not seen the improvements he's looking for. The MRIP data is messed up and NMFS is still not getting the data they need from the MRIP states. Louisiana dropped out [of MRIP] and is now getting their own data, just like Texas. It's not the best, but when in 1996 you could catch 7 fish per person for 360 days and catch 4 million pounds and now, in 2012, you can catch 2 fish per person and fish for 30 days and you are catching 5 million pounds? Impossible!

Jean Streetman- Recreational
Mr. Streetman supports Alternative 5 and agreed with the comments of others.

Norman Long- Recreational
Mr. Long has been fishing for over 50 years. Alternative 5 is his choice if he has to pick one. They are using a 30-year old allocation and data, and everything is out of whack and in need of a total overhaul. Last summer, he fished 20 days and left state waters once or twice because he didn't need to. There are more red snapper out there than he can chase. You can catch all you want at 8-9 pounds. Why can't we seem to get a longer season in federal waters? We need new science, new data, and new rules. It's ludicrous to give 51% of the fishery to 400 people. They have a place in the overall picture but not a guaranteed deal like they have now. There are plenty of fish out there. He remembers days when that was not the case so we need to be careful to not overharvest. By setting good limits, we now have plenty again.

Jerry Walker-
Mr. Walker said we need to have a new look at what's going on in the Gulf. You try to catch a different species and you're inevitably catching snapper because they're everywhere, top to bottom, every wreck, every rig, solid fish. The ecosystem is out of sync; we need to increase the limit and the number of days to fish.

Gary Johnson- Texas Restaurant Association
Mr. Johnson said that at current levels, the commercial industry stands to lose ½ million pounds with the current allocation, which will affect the portion sizes on plates for people supplied with fish. There are places not near the water, customers that don't fish, all who want to eat snapper. We need to somehow look into regional management. He supports Alternative 1, no action.

Leonard Philipp-
Mr. Phillip supports Alternative 5 and agrees with the others.

Michael Miglini-
Mr. Miglini supports Alternative 1, no reallocation. He thinks it's a false promise for the recreational fishery. For years the charter boats have tried to bring real solutions to the Council. Reallocating only feeds more fish to a broken management plan. There are a ton of red snapper out there and reallocation is barely going to give more days. There needs to be a fish tag program like the red drum that allows 365 days of fishing a year, along with accountability and reliable data on the total count of fish harvested. The charter industry needs their own allocation and the private sector needs a system that doesn't force them to throw back dead fish. He suggests focusing on meaningful solutions to the problems in the recreational fishery.

Bobby Hinds- Recreational
Mr. Hinds supports Alternative 5. There are so many fish out there, it's ridiculous. They can limit out a full boat without going into federal waters. The quota should be raised and the season should be longer in federal waters.

Pam Baker – Environmental Defense Fund
Ms. Baker supports Alternative 1. Allocation has been on the table for a really long time and is choking progress on other issues such as federal fishing licenses and predators eating discards. The amendment doesn't have the opportunity to achieve its objectives, and it pits fishermen against each other. The demand for fresh fish is strong, but fishing recreationally is also a valuable use of the resource. The stated purpose of increasing net benefits cannot be achieved by increasing the number of fish in a common pool, managed by bag/size limits. No group or individual is benefiting from that. The other stated purpose is to increase stability of the fishery. Maybe reallocation will increase the recreational fishery by 2 or 3 days, but it doesn't increase the stability or predictability of the season. Stability is about increasing opportunity and predictability. Reallocation does not do that. The Council is avoiding tackling the improvements that are needed to solve the issues with the fishery.

Wes Galloway- Recreational
Mr. Galloway doesn't want to change things for the commercial fishery; it's got the IFQ and that is fine. He felt that 51% of the public resource going for commercial use is backwards. Half of the alternatives are not reallocation at all. No movement can be made towards reallocation because IFQs are already out there. For alternatives beyond the quota, he supports Alternative 5.

Scott Hickman- Charter, commercial, boat dealer
Mr. Hickman supports Alternative 1. He is offended that the Gulf Council has come to the recreational fishermen with a plan offering two extra days. With Florida non-compliance, we likely won't even see that possible increase but rather, a reduction in days. It's ludicrous. He demands that the Council do something real. He asks why CCA is pushing Amendment 28; what about Amendment 39 so Texas can get its own piece of the pie? Reallocation is a poor plan for the recreational fisherman. If that's the best we can do, we're in trouble. He demands accountability and flexibility through tags or something else that allows fishermen to select when to fish. Amendment 28 is a joke and will not help. The Council has pitted fishermen against one another. He wants status quo (Alternative 1), and to go back to the table. Fix the problem so people can fish when they want to fish. He supports fish tags, regional management, and he likes iSnapper.

David Ruthmann- Recreational
Mr. Ruthmann is not opposed to any of the allocation options but that's not the end solution to the problem. We're talking about adding a few days to a 1 or 2 fish per person limit when it's too rough for Texans to get out on the water. There must be more to it. We are oversimplifying a process that is broken. Regional management is a good idea, especially because our water is shallower here than in other parts of the Gulf.

Buddy Guindon- Commercial
Mr. Guindon grew his family business around fixing the fishery. He believes that they [recreational anglers] should have the right to fish, but also to use a program to report data and get an accurate count. The Harte Research Institute already has a program that can be used for them to report their fish. As a commercial fisherman, he doesn't represent himself; he represents anyone who goes to a restaurant or grocery store or fish market and buys a fish to eat. You're not going to hurt him by taking 50% of his fish, but you'll harm the new entrants, the people who

are struggling to get IFQ and start in the industry. When you say 400 people, think of 400 businesses. If we don't allow them to grow, they're going to fail. They need the opportunity to be successful and to grow. Let these people do their job. Commercial fishermen are not at fault for the current situation. Force the fishery managers to do their job and let them know you want to be accountable. Also, understand that Florida has 250 fishermen for every one we have. The east is taking away your fish by allowing the other areas to harvest the fish. Of the fish consumed in this country, 97% of it comes from a grocery store. Commercial fishermen catch inexpensive fish as well as red snapper (blue fish). Don't listen to what CCA pounds into your head; get real solutions. Alternative 5 won't give you anything more. A good management system will give you what you want: year round fishing.

Shane Cantrell- Charter
Mr. Cantrell said it's a mess that we're here and discussing moving 500,000 pounds from the commercial industry to give the recreational sector 2-4 extra fishing days. He questions moving fish from the commercial fishery, which is accountable, and giving them to an unaccountable system for 4 extra days. That is a management issue. We need tags or regional management. He travels the coast and there is an incredible number of fishermen on the east side that take trips 2 and 3 times a day fishing red snapper. It's not fair to Texas. He has a hard time believing that Texas can't get past the 1% of the allocation from Florida to implement a regional management plan. Disturbing.

Brian Wyatt- Recreational
Mr. Wyatt got to this meeting and it seemed chaotic because everyone is passionate. He's been fishing for a long time and his dad was a commercial fisherman. The Gulf is broken due to federal management. Texas could manage the waters much better than the federal government. He doesn't like Alternative 5 fully; he supports it most because the economic value of the recreational fishery is much greater. This is a publicly owned resource and the 51/49% split is out of line. We all pay our fair share, but recreational fishers are stuck on the dock, some with a $200,000 boat, and they can't fish unless they pay a charter boat? That is not right. Fish tags aren't right either. For private recreational anglers, these measures are nowhere near enough. For every 1 million pounds over the TAC that the federal government says can be caught, 25% goes to commercial and 75% to the recreational fishery. Every million pounds equates to $35 million. Everyone should be able to fish every day they want to for red snapper because there are plenty of them.

Galveston, Texas
March 19, 2014

Council/Staff
Patrick Riley
Carrie Simmons
Emily Muehlstein

35 members of the public attended.

Scott Hickman- Charter and commercial
Mr. Hickman said the plan to save the recreational fishery only gives two days to the recreational sector. The plan is to take fish away from a system where people fish accountably and provide fresh fish year round and transfer it to a rotten system. You're not even going to see the fish you take from the commercial fishermen. Florida has just gone non-compliant and those extra fish are going to disappear. Mr. Hickman wants a completely different system; something that works like the commercial system. He says no to Amendment 28. He supports Alternative 1. The Council needs to find a better management system and leave us a legacy of fishing.

Steven Myer- Recreational
Mr. Myer has spoken to TPWD and knows they don't have landings on the recreational side, and he doesn't understand where we're getting our data. Nine times out of 10, the weather is too bad for fishing during the recreational season. There needs to be a better way to determine what we're landing, and the quota needs to be fixed.

Kristen McConnell- Environmental Defense Fund
Ms. McConnell encourages the Council to choose Alternative 1, no action, and move reallocation off the table to make room for better work. This issue has been choking progress on other management plans that will actually fix things. There is high demand for both fresh seafood and recreational fishing opportunities and we should not have to decide between the two. This document does nothing to meet the objectives stated in the document. The economic value won't be realized by the recreational fishery if you continue to use a common pool of fish regulated by days and bag limits. Stability is frustrating, because allocation won't change the stability of the recreational red snapper fishery. We've had increases in the TAC over the years and it hasn't solved the season problem or the issue of stability. Reallocation won't fix that problem. There are a variety of ideas; regional management, tags, charter IFQ, and days at sea, that could be actual solutions. The Council needs to stop this and do something real.

Billy Wright- Recreational and charter
Mr. Wright supports Alternative 1, No action. Moving fish to the unaccountable sector doesn't seem like the right thing to do.

Tom Hilton-
We've had this allocation for years and we should have looked at it according to the NOAA policy but, now there is staunch opposition. The commercial IFQ program has privatized our fish and turned them into stock basically. The commercial guys have a stock portfolio and he is in favor of Alternative 5. Recreational fishermen don't want to cut commercial fishing out or act like they don't have a place at the table. If we choose alternative 5 about 17 million dollars of fish will be transferred to the recreational fishery. A high-liner that owns 6% of the red snapper shares (share cap) is worth about 11 million dollars and he can retire sell them to make money for his retirement. I don't agree with any plan that privatized the resources. This is not the solution and wont fix our red snapper problems but Alternative 5 is a step in the right direction. We need data. We should implement Alternative 5 and let the states take the bull by the horns with data collection.

Bruce Daneki- Recreational
He doesn't begrudge anyone earning a living by catching red snapper. It is an endangered public resource and he's against anyone having ownership. There are clearly more fish but despite this the recreational fisherman continues to be penalized. While the TAC increases and the commercial fishery gets more pounds and money and the recreational fisherman gets a shorter season as the fish get bigger. Success of stock improvement isn't shared with the recreational fishery. He supports Alternative 5. We're not greedy and everyone should benefit but the recreational sector has been struggling in the recent past. Jim Donofrio said ownership of our nations public resourced are replenished and the commercial sector was gifted their allocation and they paid noting for their private rights. Against catch shares and a special program for headboats.

Fred Howard- Recreational
He is in favor of Alterative 5, not because it's a solution but because it's a first step that needs to be taken. Why can't the Gulf Council separate the fishery from the fishery in Texas.

Bill Hull-
Mr. Hull is in favor of Alternative 5.

David Conrad- Charter
Mr. Conrad favors Alternative 1. We need to work on a system that makes the recreational sector accountable. We don't want to move fish from the accountable sector to the non accountable one.

David Cochraine- Charter
Mr. Cochraine supports Alternative 1 because reallocation is not a solution. We should not take fish from commercial fishermen to add 2 extra days to the recreational fishery. Recreational management needs to be improved. We have a management problem and a data collection/accountability problem not an allocation problem. Accountably is the key to a better management system.

David Cuiton-
It appears that the harvest data for the recreational fishermen is off. Whatever the solution is to the problem he hops that we can mutually work it out.

Jaron Cressi- Commercial and recreational
Mr. Cressi is against reallocation and supports Alternative 1.

Buddy Guindon- Commercial
Reallocation won't hurt him, he is a big share holder and he was catching fish before the catch share program was implemented. He knows how to fish. The problem he sees with reallocation is that it will hurt small businessmen the new entrants into the fishery. Taking 8% of the commercial quota and giving it to the recreational fishery will get 700 recreational fishermen to go out and catch a fish but it will put the little guy out of business. Recreational fishermen can catch what they want and when we consider what's best for the red snapper fishery we need to get an accountably system. We don't have to wonder if the federal management is doing a good

job because you'll be part of that system. Self reported data like the iSnapper system will ensure that the government knows exactly what was harvested. Reallocation is a game so the Council can say "look what we gave you", but it does nothing to solve the problem. I promise the recreational season will continue to collapse. We've rebuild the fishery but the federal government hasn't given recreational fishermen the tools to stay within the catch limits. The state representatives don't want accountability to happen. CCA doesn't bring solution to the table the only tell you what's wrong. They did this with redfish, trout, and flounder; they promised to give back commercial harvest once the stocks were healthy, but never did. I'll never have the opportunity to catch them again. We need a management plan to fix these problems.

Bill Cochraine-
Mr. Cochraine supports Alternative 1: no action. He thinks everyone agrees that there is a problem with recreational accountability. We all know that once there is an accountably system in place then we can get some real data. Were going in the wrong direction by trying to fix a problem with reallocation; there are more fish than ever but we need to count. Choosing any of the alternatives besides Alternative 1 will set a bad precedent; and if this is done he is worried that this will continue to happen. When 2 days are added then the recreational anglers are going to keep asking for more each year.

KP Burnette- Commercial
Supports Alternative 1; no action.

Sean Warren- Charter
Supports Alternative 1; no action, and suggests Council move forward with sector separation.

Dan Green-
Against reallocation and supports Alternative 1. Why take fish out of an accountable sector and give it to a non-accountable one. We work on a new management plan for the recreational anglers.

LG Boyd-
Supports Alternative 1 and suggests the Council fix management first.

Shane Cantrell- Charter
We're not trying to take anything from anyone. Commercial fishermen are not hoarding these fish in their house, they're harvesting them for the American public. The guy from Kansas who fishes with me doesn't want to own a boat and it makes no sense, but if he wants fish he should be able to buy fish from a restaurant or fish on my boat. You're proposing to take fish from the commercial fishermen to give recreational anglers 2 more days. It's a band-aid on a sinking ship and we need to find a real solution for the recreational fishery instead.

Garrett King- Charter and commercial
Supports Alternative 1; no action.

Mark Friedberg- Seafood dealer
Mr. Friedberg supports Alternative 1. NMFS is trying to pit the commercial fishermen against recreational fishermen. We commercial folks all started fishing as recreational fishermen. As a recreational fishermen I wouldn't settle on two extra days from the Council. Recreational anglers need to demand a different plan.

Jamie Cantu- Charter
Mr. Cantu supports Alternative 1 and supports sector separation

John Spike- Recreational
Mr. Spike wants to clarify that he is checked all the time for his data.

Jason Delgado- Recreational
He is a boat owner and went of 10 times last season with lots of friends. On average they took 18-20 pound fish. He would support Alternative 5 reasoning that if the rising tide lifts all boats then increases in ACL should benefit the recreational anglers as well. He has not heard anyone say that they don't want to be accountable and there have been conversations about tags and other methods of accomplishing that. He would like the recreational fishermen to have a better system. The people we fish with all follow the rules and we support better accountability.

Larry Millican- Recreational
Supports Alternative 5 because the numbers are skewed in the recreaitonal catch data. In the 1960's you could catch all kinds of fish whenever you tried. In the 70's and 80's it got tough, but recently that's drastically improved because of the rules. He doesn't like 2 fish bag and short season and he wants more, but he also cautions that when you take your boat offshore now he doesn't see may people even with all the technology we have. In the 80's and 90's there were people and boats everywhere, and has a hard time believing that effort is increasing because there's no one out there. I've never been stopped in all my days of fishing and he would like catch be recorded better. In his opinion the recreational fishermen are not taking near what Council thinks is being harvested.

Bill Evans –
Mr. Evans supports Alterative 5.

St. Petersburg, Florida
March 24, 2014

Council/Staff
Martha Bademan
Assane Diagne
Carrie Simmons

30 Members of public attended.

Steve Maisel- Commercial
Mr. Maisel was in favor of no reallocation of red snapper, No Action; Alternative 1.

Bill Tucker- Commercial
Mr. Tucker was in favor of No Action; Alternative 1. He said the recreational sector has already landed 56% of the quota, not the 49% they are currently allocated. He has no personal ill feelings about the recreational sector, but feels it is no surprise that the recreational sector is meeting their quota earlier and the season length is getting shorter. He believes that there are more people in the recreational fishery, with more access to the fishery due to the recovering red snapper stock and a more affluent society. Mr. Tucker stated he wanted the anglers from the recreational sector to discuss other avenues to increase the season length, such as agreeing to go down to a 1-fish bag limit, instead of taking fish away from the commercial sector. He also stated there was a lot of misinformation going around about charter vessels being tied to the dock when red snapper season is closed, but in reality they were out fishing. He asked why you would reallocate to 1-3% of the U.S. population, when it is clearly not good practice to reward a sector that is unaccountable.

Ed Maccini- Commercial, President of S.O.F.A.
Mr. Maccini is in favor of No Action; Alternative 1. He knows the red snapper stock is recovering in the Gulf of Mexico, and knows that the recreational sector is catching the bag limit and the red snapper are larger, due to the management efforts the Council has completed to date. Because of the rebuilding efforts both sectors participated in, both sectors need to fish as many days to achieve their limit. For example, since the commercial sector was moved to an IFQ system, he fishes fewer days, fishes when he wants, and his vessels yield greater catch in a shorter number of days. He said the consumer is involved in the recreational sector and he would like see the recreational sector develop a management plan to increase the season length on their own, with a program such as days-at-sea.

Jim Zurbrick- Commercial, Steinhatchee
Mr. Zurbrick stated he was in favor of No Action, Alternative 1. He said many of the recreational fishing clubs (CCA and FRA) claimed to be conservationists, but when he attended a meeting hosted by Florida FWC to improve data collection for offshore recreational fishermen, the idea was met with much resistance. He wants the recreational sector to come to the podium with a solution. If they don't want the FWC developed offshore vessel permit, then the recreational fishery should consider a days-at-sea program, tagging program, or any other fishery management plan that would address the problems in the recreational sector's accountability. He agrees the fishery in Florida is not the same as it was years ago and he believes it will never be the same, due to the number of people participating in the private recreational fishery. Mr. Zurbick stated if the private recreational anglers do not become accountable for their own fishery and think outside the box, they could end up with a 20-day or less red snapper fishing season.

Mike Colby- Charter, Clearwater Marine Association and Charter Association
Mr. Colby said in preparation of this meeting he reviewed the comments online and a majority of them were rambling comments that had nothing to do with Reef Fish Amendment 28. He hopes the Council considers the quantity and quality of comments submitted online. He said he would like to see a sound recreational management plan. Mr. Colby stated the data being used for Reef

Fish Amendment 28, has been considered in the past to be fatally flawed. Yet now that same data is being used to reallocate in favor of the recreational sector. So, for reallocation some recreational anglers think it is okay to use the data, in fact embrace it, since it gives them the personal solution they are seeking. Further, if this same data is fatally flawed then there are no reasons or excuses why it can't be used in the development of Reef Fish Amendment 40-Sector Separation. Until a better data collection system is developed he can't endorse any of the alternatives, except No Action; Alternative 1.

Wayne Werner- Commercial, F/V Sea Quest
Mr. Werner stated he was in favor of No Action; Alternative 1. He stated he did not understand how anyone could be in favor of taking away 500,000 meals from consumers, for 2 extra days to fish in the recreational sector. He said he had great concerns about overharvest by the recreational sector and didn't see any justification for giving them any additional fishing days. Mr. Werner stated the recreational data used in the economic efficiency analysis was fatally flawed, in fact most of the recreational data used in that analysis came from recreational anglers in the South Atlantic. He suggested that Amendment 28 was a "feel-good" amendment for the CCA. He pointed out that there had been studies done by NMFS that showed recreational anglers would rather have 1 larger fish and more days than to catch 2 fish and have a shorter season. He stated he did not agree with the Council putting Mr. Gentner on the Socio-economic SSC. Mr. Gentner was the deciding vote and he was in violation of the Council's policies to serve on an advisory committee.

Thomas Shook- Seafood company owner, Clearwater
Mr. Shook stated he was in favor of No Action; Alternative 1. He said the commercial sector has to become accountable for every pound of red snapper landed and that he didn't see why there couldn't be more accountability for the recreational sector.

John Schmidt- Commercial
Mr. Schmidt is in favor of No Action; Alternative 1. He stated that Amendment 28 was supposed to increase net benefits to the nation, not net benefits to the recreational sector. Most of the American public doesn't have access to federal waters and must access the resource through the commercial fishery. Since the Council implemented a strict rebuilding plan, there has been an incredible recovery and advances in the fishery. During these rebuilding efforts, the commercial sector had never gone over its allocation and had never asked for any of the recreational sector's allocation. Mr. Schmidt stated he felt Amendment 28 had been rushed, more so than many of the other Council actions. He stated he was not happy with the membership on the Socio-economic SSC, especially when the deciding vote was cast by a CCA representative. He is unsure why the Council ever considered putting such an individual on the panel. He felt moving forward with Reef Fish Amendment 28 – reallocation was not a solution; instead it is unfair, and not based on sound science.

Tom Wheatley- PEW Charitable Trusts
Mr. Wheatley stated although this seems like a simple amendment (and he agrees that there should be a fair and systematic review of sector allocations), he does not think the current document supports the red snapper rebuilding plan. He would like to see in-season and post-season accountability measures added to the current draft of the amendment; without these, he

does not understand how these shifts in allocation could be biologically safe. Therefore, if a new action was added to this amendment that would ensure the rebuilding plan for red snapper was not compromised, he could see this document moving forward. But until then, PEW was not in support of this action.

Frank Chivas- Restaurateur and recreational
Mr. Chivas is in favor of No Action; Alternative 1. He noted that he had been fishing since 1968 and seen the results of overfishing happen in 3 years, (by 1971) red snapper were almost gone. He credited conservation measures with bringing the stock back. He knows red snapper is the fish of choice in many restaurants. In his restaurants, over 20% of fish sold is red snapper, and now more grocery stores are selling red snapper as the stock recovers. He personally has seen more red snapper in the last 3 years than ever before. He believes the rebuilding plan is working fine and should be left as is.

Eric Mercadante- Dual-permitted federal charter and commercial
Mr. Mercadante said he lands 90% of his red snapper commercially. He said he is closely checked and monitored when he lands his catch commercially, but none of his charter trips have ever been checked. He said, recreationally everyone wants a trophy fish, especially a large red snapper. He would like to see the recreational sector get away from a short derby fishing season. He is in agreement that the recreational sector should get together and discuss licenses, tagging, and accountability for what they are catching and landing. Until the recreational sector does this he is in favor of No Action; Alternative 1.

Shawn Watson- Commercial
Mr. Watson is in favor of No Action; Alternative 1.

Jason DeLaCruz- Commercial and seafood dealer
Mr. DeLaCruz is in favor of No Action; Alternative 1. He has a fuel dock at John's Pass and he is unsure how the two additional fishing days in the current preferred alternative are going to help the recreational sector or his business. He doesn't think fish should be taken away from the commercial sector and that such rules will make it hard for them to make a living. He thinks that is the real economic impact of the preferred alternative, versus the economic analysis cited in the amendment. He said the Socio-economic SSC said it was okay to move forward with reallocation, but voted it was based on poor economic data and the Socio-economic SSC were only in consensus on minimal changes to the current allocation.

Gregg Pruitt- Commercial and dealer Fish Busters, Madeira Beach
Mr. Pruitt is in favor of No Action; Alternative 1 until the recreational sector can be constrained to their current allocation and become more accountable. He stated that it is possible that the recreational sector may need to pay for a data collection system or program like the commercial sector does which contributes 3% of their ex-vessel value of landings to the agency for program operations.

Dennis O'Hern- Recreational, FRA
Mr. O'Hern stated the recreational sector has requested better data collection for years and it is the Office of Science and Technology's fault for not improving the survey system, not the

recreational anglers. In fact, recreational anglers have requested an improved survey system since 2000 and it still hasn't been completed. He emphasized that the recreational sector was being accountable every year. He complimented the State of Florida's efforts for taking the lead on strategies to improve data collection and applauded the efforts of the Louisiana Department of Fisheries and Wildlife. He stated if there was better data collection for the recreational sector, there would be a 6 month, 3-fish bag limit as once suggested by Dr. Shipp. He suggested more and better surveys of anglers would help this happen. Mr. O'Hern said until NMFS and the Office of Science and Technology improve the data collection program for recreational anglers, and were held accountable for their actions. The FRA was not in support of moving forward with this amendment, so he supports No action; Alternative 1.

Jim Bonnell- Commercial
Mr. Bonnell supports No Action; Alternative 1. He stated he has been fishing for 30 years and doesn't understand how commercial logbooks can be questioned, when recreational anglers can just tell the samplers how many fish they caught without any validation. He doesn't see how the recreational survey could be adequate to determine landings or support any modifications to the allocation.

Ricky Baker- Commercial
Mr. Baker is in favor of No Action; Alternative 1. He has spent 30 years commercial fishing and feels the recreational data collection system is flawed. He noted that there were worries when logbooks were first required, some people felt the government would know what they were doing and where they were fishing and of course people didn't like that, but the system worked. He explained that in 1980, red snapper were almost gone and now they are everywhere.

Sean Wert- Commercial
Mr. Wert is in favor of No Action; Alternative 1. He stated he does not understand how the agency can make commercial fishermen jump through so many hoops compared to the recreational sector, yet they are going to get more fish. Mr. Wert stated he didn't understand how the agency had any idea what the recreational landings are based on the current collection system.

Cody Chivas- Commercial and restaurateur
Mr. Chivas is in favor of No Action; Alternative 1. He stated that he did not understand how the commercial sector has to be accountable for every single pound, compared to the recreational sector, yet the agency is looking at giving them more fish.

Jackson Beatty- Recreational and diver
Mr. Beatty said he wanted to be an accountable angler and was willing to go to a 1-fish bag limit if it meant a longer fishing season. He wanted to work with other recreational anglers to improve accountability and increase fishing opportunities. He supported No Action; Alternative 1.

James Coble- Recreational and tackle shop owner
Mr. Coble stated he was in favor of Alternative 5: If the red snapper quota is less than or equal to 9.12 mp, maintain the commercial and recreational red snapper allocations at 51% and 49% of the red snapper quota, respectively. If the red snapper quota is greater than 9.12 mp, allocate

75% of the amount in excess of 9.12 mp to the recreational sector and 25% to the commercial sector.). He felt it was the most viable option in the amendment. He didn't understand why it was such a bad alternative for the commercial sector. He stated that the recreational fishery has to get more bang out of every fish they catch, and needs to be more accountable. He noted that no recreational fishers had VMS on their boats and that they didn't report their catches. He urged recreational anglers to step up to the plate and help get the fishery in shape.

Webinar
March 20, 2014

Staff
Emily Muehlstein
Charlene Ponce

10 members of the public attended.

David Krebs- Commercial
Supports Alternative 1; no action. Flexibility and accountability need to be built into the recreational sector before any other action is taken.

Eric Brazer-
Supports Alternative 1. There are no effective accountability measures for the recreational fishing sector. Until we solve that problem the recreational sector will continue to over harvest their portion of the allocation. Do not take final action on Amendment 28 until or unless the SESSC does a final analysis of the methodology used.

Brian Jilek-
Meetings should be held on weekends so that more people have an opportunity to attend.

Ken Haddad-
All the information that has come to the Council has said that the snapper allocation needs to be revisited. The recreational sector is in agreement that Alternative 5 is a stabilizing action that will allow the Council to focus on a new management regime for red snapper.

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APPENDIX E. FISHERY ALLOCATION POLICY

Gulf of Mexico Fishery Management Council Fishery Allocation Policy

This allocation policy was developed by the Gulf of Mexico Fishery Management Council to provide principles, guidelines, and suggested methods for allocation that would facilitate future allocation and reallocation of fisheries resources between or within fishery sectors.

Issues considered in this allocation policy include principles based on existing regulatory provisions, procedures to request and initiate (re)allocation, (re)allocation review frequency, tools and methods suggested for evaluating alternative (re)allocations.

1. Principles for Allocation

   a. Conservation and management measures shall not discriminate between residents of different states.

   b. Allocation shall:

      (1) be fair and equitable to fishermen and fishing sectors;
      (i) fairness should be considered for indirect changes in allocation
      (ii) any harvest restrictions or recovery benefits be allocated fairly and equitably among sectors

      (2) promote conservation
      (i) connected to the achievement of OY
      (ii) furtherance of a legitimate FMP objective,
      (iii) promotes a rational, more easily managed use

      (3) ensure that no particular individual, corporation, or other entity may acquire an excessive share.

   c. Shall consider efficient utilization of fishery resources but:
      (1) should not just redistribute gains and burdens without an increase in efficiency

      (2) prohibit measures that have economic allocation as its sole purpose.

   d. Shall take into account: the importance of fishery resources to fishing communities by utilizing economic and social data in order to:
      (1) provide for the sustained participation of fishing communities

      (2) minimize adverse economic impacts on fishing communities.

e. Any fishery management plan, plan amendment, or regulation submitted by the Gulf Council for the red snapper fishery shall contain conservation and management measures that:
   (1) establish separate quotas for recreational fishing (including charter fishing) and commercial fishing.

   (2) prohibit a sector (i.e., recreational or commercial) from retaining red snapper for the remainder of the season, when it reaches its quota.

   (3) ensure that the recreational and commercial quotas reflect allocation among sectors and do not reflect harvests in excess of allocations.

2. Guidelines for Allocation

   a. All allocations and reallocations must be consistent with the Gulf of Mexico Fishery Management Council's principles for allocation.

   b. An approved Council motion constitutes the only appropriate means for requesting the initiation of allocation or reallocation of a fishery resource. The motion should clearly specify the basis for, purpose and objectives of the request for (re)allocation.

   c. The Council should conduct a comprehensive review of allocations within the individual FMPs at intervals of no less than five years.

   d. Following an approved Council motion to initiate an allocation or reallocation, the Council will suggest methods to be used for determining the new allocation. Methods suggested must be consistent with the purpose and objectives included in the motion requesting the initiation of allocation or reallocation.

   e. Changes in allocation of a fishery resource may, to the extent practicable, account for projected future socio-economic and demographic trends that are expected to impact the fishery.

   f. Indirect changes in allocation, i.e., shifts in allocation resulting from management measures, should be avoided or minimized to the extent possible.

3. Suggested Methods for Determining (Re)Allocation

   a. Market-based Allocation

      (1) Auction of quota

      (2) Quota purchases between commercial and recreational sectors
         (i) determine prerequisites and conditions:
            (a) quota or tags or some other mechanism required in one or both sectors
            (b) mechanism to broker or bank the purchases and exchanges

(c) annual, multi-year, or permanent
(d) accountability for purchased or exchanged quota in the receiving sector

b. Catch-Based (and mortality) Allocation

(1) historical landings data
(i) averages based on longest period of credible records
(ii) averages based on a period of recent years
(iii) averages based on total fisheries mortality (landings plus discard mortality) by sector
(iv) allocations set in a previous FMP
(v) accountability (a sector's ability to keep within allocation)

c. Socioeconomic-based Allocation

(1) socio-economic analyses
(i) net benefits to the nation
(ii) economic analysis limited to direct participants
(iii) economic impact analysis (direct expenditures and multiplier impacts)
(iv) social impact analysis
(v) fishing communities
(vi) participation trends
(vii) "efficiency" analysis
(a) lowest possible cost for a particular level of catch;
(b) harvest OY with the minimum use of economic inputs

d. Negotiation-Based Allocation

(1) Mechanism for sectors to agree to negotiation and select representatives

(2) Mechanism to choose a facilitator

(3) Negotiated agreement brought to Council for normal FMP process of adoption and implementation.

APPENDIX F. CURRENT FEDERAL REGULATIONS FOR GULF OF MEXICO RECREATIONAL RED SNAPPER MANAGEMENT

1. § 622.9 Prohibited gear and methods--general.

(e) Use of Gulf reef fish as bait prohibited. Gulf reef fish may not be used as bait in any fishery, except that, when purchased from a fish processor, the filleted carcasses and offal of Gulf reef fish may be used as bait in trap fisheries for blue crab, stone crab, deep-water crab, and spiny lobster.

2. § 622.20 Permits and endorsements

(b) Charter vessel/headboat permits. For a person aboard a vessel that is operating as a charter vessel or headboat to fish for or possess Gulf reef fish, in or from the EEZ, a valid charter vessel/headboat permit for Gulf reef fish must have been issued to the vessel and must be on board.

(1) Limited access system for charter vessel/headboat permits for Gulf reef fish. No applications for additional charter vessel/headboat permits for Gulf reef fish will be accepted. Existing permits may be renewed, are subject to the restrictions on transfer in paragraph (b)(1)(i) of this section, and are subject to the renewal requirements in paragraph (b)(1)(ii) of this section.

(i) Transfer of permits--(A) Permits without a historical captain endorsement. A charter vessel/headboat permit for Gulf coastal migratory pelagic fish or Gulf reef fish that does not have a historical captain endorsement is fully transferable, with or without sale of the permitted vessel, except that no transfer is allowed to a vessel with a greater authorized passenger capacity than that of the vessel to which the moratorium permit was originally issued, as specified on the face of the permit being transferred. An application to transfer a permit to an inspected vessel must include a copy of that vessel's current USCG Certificate of Inspection (COI). A vessel without a valid COI will be considered an uninspected vessel with an authorized passenger capacity restricted to six or fewer passengers.

(B) Permits with a historical captain endorsement. A charter vessel/headboat permit for Gulf coastal migratory pelagic fish or Gulf reef fish that has a historical captain endorsement may only be transferred to a vessel operated by the historical captain, cannot be transferred to a vessel with a greater authorized passenger capacity than that of the vessel to which the moratorium permit was originally issued, as specified on the face of the permit being transferred, and is not otherwise transferable.

(C) Procedure for permit transfer. To request that the RA transfer a charter vessel/headboat permit for Gulf reef fish, the owner of the vessel who is transferring the permit and the owner of the vessel that is to receive the transferred permit must complete the transfer information on the reverse side of the permit and return the permit and a completed application for transfer to the RA. See § 622.4(f) for additional transfer-related requirements applicable to all permits issued under this part.

(ii) Renewal. (A) Renewal of a charter vessel/headboat permit for Gulf reef fish is contingent upon the permitted vessel and/or captain, as appropriate, being included in an active

survey frame for, and, if selected to report, providing the information required in one of the approved fishing data surveys. Surveys include, but are not limited to–-

(1) NMFS' Marine Recreational Fishing Vessel Directory Telephone Survey (conducted by the Gulf States Marine Fisheries Commission);

(2) NMFS' Southeast Headboat Survey (as required by § 622.26(b)(1));

(3) Texas Parks and Wildlife Marine Recreational Fishing Survey; or

(4) A data collection system that replaces one or more of the surveys in paragraph (b)(1)(ii)(A),(1),(2), or (3) of this section.

(B) A charter vessel/headboat permit for Gulf reef fish that is not renewed or that is revoked will not be reissued. A permit is considered to be not renewed when an application for renewal, as required, is not received by the RA within 1 year of the expiration date of the permit.

(iii) Requirement to display a vessel decal. Upon renewal or transfer of a charter vessel/headboat permit for Gulf reef fish, the RA will issue the owner of the permitted vessel a vessel decal for Gulf reef fish. The vessel decal must be displayed on the port side of the deckhouse or hull and must be maintained so that it is clearly visible.

(2) A charter vessel or headboat may have both a charter vessel/headboat permit and a commercial vessel permit. However, when a vessel is operating as a charter vessel or headboat, a person aboard must adhere to the bag limits. See the definitions of "Charter vessel" and "Headboat" in § 622.2 for an explanation of when vessels are considered to be operating as a charter vessel or headboat, respectively.

(3) If Federal regulations for Gulf reef fish in subparts A or B of this part are more restrictive than state regulations, a person aboard a charter vessel or headboat for which a charter vessel/headboat permit for Gulf reef fish has been issued must comply with such Federal regulations regardless of where the fish are harvested.

3. § 622.26 Recordkeeping and reporting.

(b) Charter vessel/headboat owners and operators–-(1) Reporting requirement. The owner or operator of a vessel for which a charter vessel/headboat permit for Gulf reef fish has been issued, as required under § 622.20(b), or whose vessel fishes for or lands such reef fish in or from state waters adjoining the Gulf EEZ, who is selected to report by the SRD must maintain a fishing record for each trip, or a portion of such trips as specified by the SRD, on forms provided by the SRD and must submit such record as specified in paragraph (b)(2) of this section.

(2) Reporting deadlines--(i) Charter vessels. Completed fishing records required by paragraph (b)(1) of this section for charter vessels must be submitted to the SRD weekly, postmarked not later than 7 days after the end of each week (Sunday). Information to be reported is indicated on the form and its accompanying instructions.

(ii) Headboats. Completed fishing records required by paragraph (b)(1) of this section for headboats must be submitted to the SRD monthly and must either be made available to an authorized statistical reporting agent or be postmarked not later than 7 days after the end of each month. Information to be reported is indicated on the form and its accompanying instructions.

4. § 622.27 At-sea observer coverage.

(a) Required coverage. A vessel for which a Federal commercial vessel permit for Gulf reef fish or a charter vessel/headboat permit for Gulf reef fish has been issued must carry a NMFS-approved observer, if the vessel's trip is selected by the SRD for observer coverage. Vessel permit renewal is contingent upon compliance with this paragraph (a).

(b) Notification to the SRD. When observer coverage is required, an owner or operator must advise the SRD in writing not less than 5 days in advance of each trip of the following:

(1) Departure information (port, dock, date, and time).

(2) Expected landing information (port, dock, and date).

(c) Observer accommodations and access. An owner or operator of a vessel on which a NMFS-approved observer is embarked must:

(1) Provide accommodations and food that are equivalent to those provided to the crew.

(2) Allow the observer access to and use of the vessel's communications equipment and personnel upon request for the transmission and receipt of messages related to the observer's duties.

(3) Allow the observer access to and use of the vessel's navigation equipment and personnel upon request to determine the vessel's position.

(4) Allow the observer free and unobstructed access to the vessel's bridge, working decks, holding bins, weight scales, holds, and any other space used to hold, process, weigh, or store fish.

(5) Allow the observer to inspect and copy the vessel's log, communications logs, and any records associated with the catch and distribution of fish for that trip.

5. § 622.29 Conservation measures for protected resources.

(a) Gulf reef fish commercial vessels and charter vessels/headboats--(1) Sea turtle conservation measures. (i) The owner or operator of a vessel for which a commercial vessel permit for Gulf reef fish or a charter vessel/headboat permit for Gulf reef fish has been issued, as required under
§§ 622.20(a)(1) and 622.20(b), respectively, must post inside the wheelhouse, or within a waterproof case if no wheelhouse, a copy of the document provided by NMFS titled, "Careful Release Protocols for Sea Turtle Release With Minimal Injury," and must post inside the wheelhouse, or in an easily viewable area if no wheelhouse, the sea turtle handling and release guidelines provided by NMFS.

(ii) Such owner or operator must also comply with the sea turtle bycatch mitigation measures, including gear requirements and sea turtle handling requirements, specified in §§ 635.21(c)(5)(i) and (ii) of this chapter, respectively.

(iii) Those permitted vessels with a freeboard height of 4 ft (1.2 m) or less must have on board a dipnet, tire, short-handled dehooker, long-nose or needle-nose pliers, bolt cutters, monofilament line cutters, and at least two types of mouth openers/mouth gags. This equipment must meet the specifications described in §§ 635.21(c)(5)(i)(E) through (L) of this chapter with the following modifications: the dipnet handle can be of variable length, only one NMFS-approved short-handled dehooker is required (i.e., § 635.21(c)(5)(i)(G) or (H) of this chapter); and life rings, seat cushions, life jackets, and life vests or any other comparable, cushioned, elevated surface that allows boated sea turtles to be immobilized, may be used as alternatives to

tires for cushioned surfaces as specified in § 635.21(c)(5)(i)(F) of this chapter. Those permitted vessels with a freeboard height of greater than 4 ft (1.2 m) must have on board a dipnet, tire, long-handled line clipper, a short-handled and a long-handled dehooker, a long-handled device to pull an inverted "V", long-nose or needle-nose pliers, bolt cutters, monofilament line cutters, and at least two types of mouth openers/mouth gags. This equipment must meet the specifications described in § 635.21(c)(5)(i)(A) through (L) of this chapter with the following modifications: only one NMFS-approved long-handled dehooker (§ 635.21(c)(5)(i)(B) or (C)) of this chapter and one NMFS-approved short-handled dehooker (§ 635.21(c)(5)(i)(G) or (H) of this chapter) are required; and life rings, seat cushions, life jackets, and life vests, or any other comparable, cushioned, elevated surface that allows boated sea turtles to be immobilized, may be used as alternatives for cushioned surfaces as specified in § 635.21(c)(5)(i)(F) of this chapter.

(2) Smalltooth sawfish conservation measures. The owner or operator of a vessel for which a commercial vessel permit for Gulf reef fish or a charter vessel/headboat permit for Gulf reef fish has been issued, as required under §§ 622.20(a)(1) and 622.20(b), respectively, that incidentally catches a smalltooth sawfish must--

(i) Keep the sawfish in the water at all times;

(ii) If it can be done safely, untangle the line if it is wrapped around the saw;

(iii) Cut the line as close to the hook as possible; and

(iv) Not handle the animal or attempt to remove any hooks on the saw, except for with a long-handled dehooker.

(b) [Reserved]

6. § 622.30 Required fishing gear.

For a person on board a vessel to fish for Gulf reef fish in the Gulf EEZ, the vessel must possess on board and such person must use the gear as specified in paragraphs (a) through (c) of this section.

(a) Non-stainless steel circle hooks. Non-stainless steel circle hooks are required when fishing with natural baits.

(b) Dehooking device. At least one dehooking device is required and must be used to remove hooks embedded in Gulf reef fish with minimum damage. The hook removal device must be constructed to allow the hook to be secured and the barb shielded without re-engaging during the removal process. The dehooking end must be blunt, and all edges rounded. The device must be of a size appropriate to secure the range of hook sizes and styles used in the Gulf reef fish fishery.

(c) Venting tool. At least one venting tool is required and must be used to deflate the abdominal cavities of Gulf reef fish to release the fish with minimum damage. This tool must be a sharpened, hollow instrument, such as a hypodermic syringe with the plunger removed, or a 16-gauge needle fixed to a hollow wooden dowel. A tool such as a knife or an ice-pick may not be used. The venting tool must be inserted into the fish at a 45-degree angle approximately 1 to 2 inches (2.54 to 5.08 cm) from the base of the pectoral fin. The tool must be inserted just deep enough to release the gases, so that the fish may be released with minimum damage.

7. § 622.32 Prohibited gear and methods.

Also see § 622.9 for additional prohibited gear and methods that apply more broadly to multiple fisheries or in some cases all fisheries.

(a) Poisons. A poison may not be used to take Gulf reef fish in the Gulf EEZ.

(b) [Reserved]

8. § 622.33 Prohibited species.

(d) Gulf reef fish exhibiting trap rash. Possession of Gulf reef fish in or from the Gulf EEZ that exhibit trap rash is prima facie evidence of illegal trap use and is prohibited. For the purpose of this paragraph, trap rash is defined as physical damage to fish that characteristically results from contact with wire fish traps. Such damage includes, but is not limited to, broken fin spines, fin rays, or teeth; visually obvious loss of scales; and cuts or abrasions on the body of the fish, particularly on the head, snout, or mouth.

9. § 622.34 Seasonal and area closures designed to protect Gulf reef fish.

(a) Closure provisions applicable to the Madison and Swanson sites and Steamboat Lumps, and the Edges-- (1) Descriptions of Areas. (i) The Madison and Swanson sites are bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
A	29°17'	85°50'
B	29°17'	85°38'
C	29°06'	85°38'
D	29°06'	85°50'
A	29°17'	85°50'

(ii) Steamboat Lumps is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
A	28°14'	84°48'
B	28°14'	84°37'
C	28°03'	84°37'
D	28°03'	84°48'
A	28°14'	84°48'

(iii) The Edges is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
A	28°51'	85°16'
B	28°51'	85°04'
C	28°14'	84°42'
D	28°14'	84°54'
A	28°51'	85°16'

(2) Within the Madison and Swanson sites and Steamboat Lumps, possession of Gulf reef fish is prohibited, except for such possession aboard a vessel in transit with fishing gear stowed as specified in paragraph (a)(4) of this section.

(3) Within the Madison and Swanson sites and Steamboat Lumps during November through April, and within the Edges during January through April, all fishing is prohibited, and possession of any fish species is prohibited, except for such possession aboard a vessel in transit with fishing gear stowed as specified in paragraph (a)(4) of this section. The provisions of this paragraph, (a)(3), do not apply to highly migratory species.

(4) For the purpose of paragraph (a) of this section, transit means non-stop progression through the area; fishing gear appropriately stowed means--

(i) A longline may be left on the drum if all gangions and hooks are disconnected and stowed below deck. Hooks cannot be baited. All buoys must be disconnected from the gear; however, buoys may remain on deck.

(ii) A trawl net may remain on deck, but trawl doors must be disconnected from the trawl gear and must be secured.

(iii) A gillnet must be left on the drum. Any additional gillnets not attached to the drum must be stowed below deck.

(iv) A rod and reel must be removed from the rod holder and stowed securely on or below deck. Terminal gear (i.e., hook, leader, sinker, flasher, or bait) must be disconnected and stowed separately from the rod and reel. Sinkers must be disconnected from the down rigger and stowed separately.

(5) Within the Madison and Swanson sites and Steamboat Lumps, during May through October, surface trolling is the only allowable fishing activity. For the purpose of this paragraph (a)(5), surface trolling is defined as fishing with lines trailing behind a vessel which is in constant motion at speeds in excess of four knots with a visible wake. Such trolling may not involve the use of down riggers, wire lines, planers, or similar devices.

(6) For the purpose of this paragraph (a), fish means finfish, mollusks, crustaceans, and all other forms of marine animal and plant life other than marine mammals and birds. Highly migratory species means tuna species, marlin (*Tetrapturus spp.* and *Makaira spp.*), oceanic sharks, sailfishes (*Istiophorus spp.*), and swordfish (*Xiphias gladius*).

10. § 622.35 Gear restricted areas.

(a) Reef fish stressed area. The stressed area is that part of the Gulf EEZ shoreward of rhumb lines connecting, in order, the points listed in Table 2 in Appendix B of this part.

(1) A powerhead may not be used in the stressed area to take Gulf reef fish. Possession of a powerhead and a mutilated Gulf reef fish in the stressed area or after having fished in the stressed area constitutes prima facie evidence that such reef fish was taken with a powerhead in the stressed area. The provisions of this paragraph do not apply to hogfish.

(2) A roller trawl may not be used in the stressed area. Roller trawl means a trawl net equipped with a series of large, solid rollers separated by several smaller spacer rollers on a separate cable or line (sweep) connected to the footrope, which makes it possible to fish the gear over rough bottom, that is, in areas unsuitable for fishing conventional shrimp trawls. Rigid framed trawls adapted for shrimping over uneven bottom, in wide use along the west coast of Florida, and shrimp trawls with hollow plastic rollers for fishing on soft bottoms, are not considered roller trawls.

(b) Seasonal prohibitions applicable to bottom longline fishing for Gulf reef fish. (1) From June through August each year, bottom longlining for Gulf reef fish is prohibited in the portion of the Gulf EEZ east of 85°30' W. long. that is shoreward of rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
A	28°58.70'	85°30.00'
B	28°59.25'	85°26.70'
C	28°57.00'	85°13.80'
D	28°47.40'	85°3.90'
E	28°19.50'	84°43.00'
F	28°0.80'	84°20.00'
G	26°48.80'	83°40.00'
H	25°17.00'	83°19.00'
I	24°54.00'	83°21.00'
J	24°29.50'	83°12.30'
K	24°26.50'	83°00.00'

(2) Within the prohibited area and time period specified in paragraph (b)(1) of this section, a vessel with bottom longline gear on board may not possess Gulf reef fish unless the bottom longline gear is appropriately stowed, and a vessel that is using bottom longline gear to fish for species other than Gulf reef fish may not possess Gulf reef fish. For the purposes of paragraph (b) of this section, appropriately stowed means that a longline may be left on the drum

if all gangions and hooks are disconnected and stowed below deck; hooks cannot be baited; and all buoys must be disconnected from the gear but may remain on deck.

(3) Within the Gulf EEZ east of 85°30' W. long., a vessel for which a valid eastern Gulf reef fish bottom longline endorsement has been issued that is fishing bottom longline gear or has bottom longline gear on board cannot possess more than a total of 1000 hooks including hooks on board the vessel and hooks being fished and cannot possess more than 750 hooks rigged for fishing at any given time. For the purpose of this paragraph, "hooks rigged for fishing" means hooks attached to a line or other device capable of attaching to the mainline of the longline.

(c) Reef fish longline and buoy gear restricted area. A person aboard a vessel that uses, on any trip, longline or buoy gear in the longline and buoy gear restricted area is limited on that trip to the bag limits for Gulf reef fish specified in § 622.38(b) and, for Gulf reef fish for which no bag limit is specified in § 622.38(b), the vessel is limited to 5 percent, by weight, of all fish on board or landed. The longline and buoy gear restricted area is that part of the Gulf EEZ shoreward of rhumb lines connecting, in order, the points listed in Table 1 in Appendix B of this part.

(d) Alabama SMZ. The Alabama SMZ consists of artificial reefs and surrounding areas. In the Alabama SMZ, fishing by a vessel that is operating as a charter vessel or headboat, a vessel that does not have a commercial permit for Gulf reef fish, as required under § 622.20(a)(1), or a vessel with such a permit fishing for Gulf reef fish is limited to hook-and-line gear with three or fewer hooks per line and spearfishing gear. A person aboard a vessel that uses on any trip gear other than hook-and-line gear with three or fewer hooks per line and spearfishing gear in the Alabama SMZ is limited on that trip to the bag limits for Gulf reef fish specified in § 622.38(b) and, for Gulf reef fish for which no bag limit is specified in § 622.38(b), the vessel is limited to 5 percent, by weight, of all fish on board or landed. The Alabama SMZ is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
A	30°02.5'	88°07.7'
B	30°02.6'	87°59.3'
C	29°55.0'	87°55.5'
D	29°54.5'	88°07.5'
A	30°02.5'	88°07.7'

11. § 622.37 Size limits.

All size limits in this section are minimum size limits unless specified otherwise. A fish not in compliance with its size limit, as specified in this section, in or from the Gulf EEZ, may not be possessed, sold, or purchased. A fish not in compliance with its size limit must be released immediately with a minimum of harm. The operator of a vessel that fishes in the EEZ is responsible for ensuring that fish on board are in compliance with the size limits specified in this section. See § 622.10 regarding requirements for landing fish intact.

(a) Snapper—-(1) Red snapper–-16 inches (40.6 cm), TL, for a fish taken by a person subject to the bag limit specified in § 622.38 (b)(3) and 13 inches (33.0 cm), TL, for a fish taken by a person not subject to the bag limit.

12. § 622.38 Bag and possession limits.

(a) Additional applicability provisions for Gulf reef fish. (1) Section 622.11(a) provides the general applicability for bag and possession limits. However, § 622.11(a) notwithstanding, bag and possession limits also apply for Gulf reef fish in or from the EEZ to a person aboard a vessel that has on board a commercial permit for Gulf reef fish--

(i) When trawl gear or entangling net gear is on board. A vessel is considered to have trawl gear on board when trawl doors and a net are on board. Removal from the vessel of all trawl doors or all nets constitutes removal of trawl gear.

(ii) When a longline or buoy gear is on board and the vessel is fishing or has fished on a trip in the reef fish longline and buoy gear restricted area specified in § 622.35(c). A vessel is considered to have a longline on board when a power-operated longline hauler, a cable of diameter and length suitable for use in the longline fishery, and gangions are on board. Removal of any one of these three elements, in its entirety, constitutes removal of a longline.

(iii) For a species/species group when its quota has been reached and closure has been effected, provided that no commercial quantities of Gulf reef fish, i.e., Gulf reef fish in excess of applicable bag/possession limits, are on board as specified in paragraph (a)(2) of this section.

(iv) When the vessel has on board or is tending any trap other than a stone crab trap or a spiny lobster trap.

(2) A person aboard a vessel that has a Federal commercial vessel permit for Gulf reef fish and commercial quantities of Gulf reef fish, i.e., Gulf reef fish in excess of applicable bag/possession limits, may not possess Gulf reef fish caught under a bag limit.

(b) Bag limits--

(3) Red snapper--2. However, no red snapper may be retained by the captain or crew of a vessel operating as a charter vessel or headboat. The bag limit for such captain and crew is zero.

13. § 622.39 Quotas.

See § 622.8 for general provisions regarding quota applicability and closure and reopening procedures. This section, provides quotas and specific quota closure restrictions for Gulf reef fish.

(a) Gulf reef fish--

(2) Recreational quotas. The following quotas apply to persons who fish for Gulf reef fish other than under commercial vessel permits for Gulf reef fish and the applicable commercial quotas specified in paragraph (a)(1) of this section.

(i) Recreational quota for red snapper--4.145 million lb (1.880 million kg), round weight.

(c) Restrictions applicable after a recreational quota closure--

(1) After closure of the recreational quota for red snapper. The bag and possession limit for red snapper in or from the Gulf EEZ is zero.

APPENDIX G. ECONOMIC ANALYSIS OF RED SNAPPER ALLOCATION ALTERNATIVES FOR AMENDMENT 28 TO THE GULF OF MEXICO REEF FISH FMP

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Contents

Introduction

This report investigates the economic effects of the alternatives proposed in Amendment 28 to the Reef Fish Fishery Management Plan (FMP) of the Gulf of Mexico. Amendment 28 considers revising the 51% commercial/49% recreational allocation formula set in Amendment 1 to the Reef Fish FMP. Specifically, alternatives 2 through 4 consider increasing the recreational sector allocation by 3%, 5% and 10%, respectively; whereas alternatives 5 and 6 would only reallocate quota increases when the red snapper quota is greater than 9.12 million pounds (mp) whole weight (ww) (Table 2). Alternative 5 would allocate 75% of quota increases (above 9.12 mp) to the recreational sector and 25% to the commercial sector, whereas alternative 6 would allocate 100% of the quota increases (above 9.12 mp) to the recreational sector.

Conceptually, the economic value of a two-sector fishery, given a set quota level, reaches a maximum when quota is efficiently allocated among the two sectors. This occurs when the net benefit of the last unit of quota allocated to one sector equals the net benefit of the last unit of quota allocated to the other sector. If these marginal net benefits are not equal, then the economic benefits to the nation can be improved by shifting quota from the sector with the lower marginal net benefit to the sector with the higher marginal net benefit for a unit of quota.

In the 2012 red snapper allocation analysis (Agar and Carter 2012a), we found that the current allocation was not economically efficient because the marginal net benefit for an additional unit of quota differed between the commercial and recreational sectors. However, we cautioned that the extent to which economic benefits could be increased via reallocation could not be adequately determined at the time. We noted that additional research, improvements in the quality of existing data collections, and new data collections were necessary in order to estimate the economic effects of non-marginal changes to allocation. The caveats mentioned in Agar and Carter (2012a) also

apply to this analysis. The methods used in this analysis follow our earlier work with red snapper and grouper species (Agar and Carter 2012a, b; Carter et al. 2008).

The remainder of the report is structured as follows. Section 2 describes the estimation of the commercial net benefits for the proposed reallocation alternatives. Section 3 describes the calculation of the recreational net benefit for the proposed allocation changes. The last section summarizes the economic effects of the proposed reallocation alternatives and discusses the key results of the analysis.

Commercial Sector Analysis

We explored the economic effects of alternative red snapper quota reallocations using two alternative approaches. The first approach attempted to estimate a derived demand model for red snapper allocation (leased quota) from indirect, trip-level revenue (profit) functions analogous to the framework used by Squires and Kirkley (1995), Carter et al. (2008), and Gentner et al. (2010). Unfortunately, this approach proved unfruitful because the absence of data on rental prices limited our ability to estimate how quasi-fixed input usage would be change in response to quota changes (see, Appendix A for discussion); hence, we pursued a second approach to estimate the economic effects of changes in the allocation formula. The second approach used a reduced form, linear equation to examine the relationship between red snapper allocation prices and quota levels (Newell et al. 2005). In the red snapper commercial fishery, IFQ allocation is the actual poundage of red snapper that shareholder or allocation holder can possess, land, or sell during a given calendar year.

We use allocation prices because they serve as sound proxies for net economic benefits because fishermen will only purchase additional units of allocation as long the as the expected net revenue of the last unit of allocation purchased equals or exceeds the allocation price. At the margin, the

net revenue of last unit of allocation purchased should equal the allocation price. In other words, the market based allocation prices are expected to reflect the expected net revenue from holding additional units of allocation (Clark, 1982; Newell et al. 2005).

In well-behaved quota markets, we expect allocation prices to be a function of, among other things, output and factor prices, harvesting technology, fish abundance, and quota. In particular, we expect the allocation price for red snapper to be positively related to the dockside price of red snapper and negatively related to input prices such as fuel. Also, all other things being equal, as quota levels increase, allocation prices are expected to fall.

Specification and Data for the Allocation Price Regression

We used a specification for the allocation price equation that is similar to the one put forth by Newell et al. (2005). However, our specification is considerably more parsimonious given data limitations and the number of observations available. Specifically, we modelled the average monthly red snapper allocation prices as a function of red snapper dockside prices, diesel fuel price index, annual red snapper quota levels, and dummy variables for quarter and year.[28]

Data on quota levels, and allocation and dockside prices were obtained from the Southeast Regional Office (SERO) IFQ Database. [29] The diesel (#2, WPU057303) price index was obtained from the U.S. Bureau of Labor Statistics along with the consumer price index (CUSR0000SA0) that was used to adjust all prices to 2012 dollars. The analysis focused on the 2007-2012 period when the IFQ program was in place. About 80 percent of the allocation transactions reported zero or very low allocation prices because many participants were concerned about privacy and also because many of the transactions are believed that to have involved non-arm length transfers

[28] We tried other specification that regressed allocation prices against the number of monthly allocation transfers, monthly landings and cumulative landings but these were not statistically significant.
[29] In the commercial red snapper fishery, landings are usually expressed in pounds gutted weight (gw) and dockside, share and allocation prices in dollars per pound of gw. The whole weight to gutted weight conversion factor is 1.11.

between related accounts. Therefore, we created monthly allocation price averages using only observations with values greater or equal $1.2 but less or equal than $5. In addition, because many dockside prices for red snapper were reported as net of allocation price (i.e., dockside price minus allocation price) we generated monthly dockside prices using observations with prices equal or greater than $2.6 and but less than $10. The values generated for monthly allocation and dockside prices follow the guidelines used in the 5 year review of the red snapper IFQ program. The descriptive statistics of the variables used in the analysis are found in Table 3.

Commercial Sector Results

Table 4 shows the OLS results of 4 different models that considered the relationship between red snapper allocation prices and dockside prices, diesel price index, quarterly and yearly variables, and quota levels. In general, the results show that much of the variation in average allocation prices is explained by yearly dummies. Most of the explanatory variables such as dockside prices, diesel 2 index, are not statistically significant when yearly dummy variables are included (Models 2 and 3). Only Model 4 yields a quota parameter that is negative and statistically significant at the 5% level.

To predict the effect of changing quotas on allocation prices while controlling for dockside price, diesel fuel prices and quarterly and yearly fixed effects we use Model 4. The predicted mean allocation price over a range of quotas levels is shown in Table 5 along with the lower (95Lower) and upper (95Upper) confidence estimates of the mean. Table 6 shows the estimated forgone annual net economic benefits from reallocating quota from the commercial to the recreational sector. Alternative 2 (3% change in allocation) was the least onerous alternative to the commercial sector resulting in a net annual loss of $0.8 million, whereas alternative 4 (10% change in allocation) and 6 (100% allocation of quota increases above 9.12 mp) were the most onerous

alternatives to the commercial sector resulting in an annual loss in net benefits of $2.9 million and $2.5 million, respectively.

Recreational Sector Analysis

This section describes the methods used to determine the change in economic net benefits to the recreational sector associated with the allocation alternatives proposed for red snapper in the Gulf of Mexico. The general method is simple: the net benefits of a change in allocation equal the implied change in harvest times the net benefit per pound of fish. Most of this section is spent discussing the approach used to calculate the net benefit for a pound of fish in the recreational sector. We provide further discussion of the concept of net benefit, or willingness-to-pay (WTP), in our previous report on red snapper (Agar and Carter 2012b).

Background and Assumptions

There is no quota market (e.g., ITQ) for recreationally harvested red snapper in the Gulf of Mexico. Nor are harvest estimates timely enough to allow "real-time" quota monitoring in the recreational sector. Therefore, any additional quota allocated to the recreational sector must be distributed via changes in fishing regulations (e.g., bag limits and season length). The regulations used to distribute additional quota can influence the amount of economic benefit generated, if any. In fact, preliminary research at the University of Maryland suggests that the way the recreational sector is managed has important implications for the way we should *measure* the economic benefits of reallocation. Discussion of this issue is beyond the scope of this report, but should be kept in mind as many of the margins we discuss below (trips per season, harvest per trip, etc.) are irrelevant to the analysis if there is no mechanism in place to sort anglers along the margin according to their preferences.

Consider the ways in which aggregate recreational harvest might increase given a reallocation. That is, how can an increase in harvest allocated to the recreational sector be absorbed? In general, aggregate harvest can increase if more pounds are harvested per trip or if more trips are taken. Pounds per trip can increase when more or bigger fish are harvested per trip either because of improvements in the stock, a change in the bag or size limit, changes in technology, or an increase in the time spent fishing per trip. In increase in trips occurs when new anglers start fishing, existing anglers take more trips, or existing trips are redirected from other species to harvest red snapper.

Based on discussions with Council and SERO staff, we assume that there will be no change in the number of pounds harvested per trip, primarily because the Council is unlikely to change the bag or minimum size limits. The Council is likely to extend the red snapper fishing season to allocate additional harvest to the recreational sector. Given data and model limitations we are forced to take a narrow view regarding the effect of the longer season on fishing activity. Specifically, we assume that no new anglers will start fishing and that existing anglers will not change the number of trips they take when the season is extended. If there are no new anglers or trips and the harvest per trip is unchanged, then aggregate harvest can only increase if anglers previously fishing for other species *redirect* to harvest red snapper when the season is open. These assumptions were implicit in our previous analyses, but were somewhat less controversial because we were measuring economic value at the margin or evaluating very small allocation changes. Presently, the Council is considering relatively larger changes in allocation (e.g., 10 percent) and the assumptions of no new anglers or trips are more tenuous. In any case, if new anglers or trips result from the increase in allocation to the recreational sector and the extension of the season, then the increase in economic benefits would probably be higher than measured in this report.

We make five other methodological assumptions:[30] 1) anglers harvest the bag limit, i.e., harvest two red snapper per trip; 2) the average weight per red snapper is 6.34 based on the average from 2011; 3) the net benefit of two red snapper harvested per trip is the same for all trips taken over the season; 4) the net benefit curve for the number of red snapper harvested per trip is estimated using data from 2003; and 5) changes in net benefits to for-hire operators are not measured. Currently, the daily bag limit of red snapper is two fish. Figure 1 demonstrates the potential sensitivity of our results to the different assumptions about the average fish weight and the number of red snapper harvested per trip. In general, the heavier the fish on average, the lower the measures of net benefit. This somewhat counterintuitive outcome is because lower weight fish means more fish can be caught for a given quota increase. Similarly, if we were to assume that only one fish is harvested per trip, instead of two fish, then the measures of net benefit would be higher, as the preference for a second fish is less than for the first.

As we describe below, our estimate of angler benefit for fish on a trip is based on data from 2003 (inflation adjusted). Currently an economic survey of anglers in the Gulf of Mexico is being fielded and is scheduled to end in spring of 2014. We will have some preliminary results by the end of the year. Until then, however, we do not know whether estimates using more recent data would be higher or lower than the estimates from the 2003 data. Consequently, we cannot speculate as to how our measures of the economic value associated with increased quota in the recreational sector would change with more recent data.

We do not attempt to measure changes in economic value (producer surplus) accruing to operators/owners in the charter and head boat industry. In fact, by assuming that trips do not

[30] As in the previous analyses, we also ignore dynamic feedbacks (e.g., congestion or stock effects) because this type of response is unlikely to be significant in the short-term, i.e. one year.

change, we are also assuming that the only way to have changes in producer surplus would be for for-hire profits to be relatively higher on trips that offer red snapper. The angler benefit estimates described below suggest that some anglers are indeed willing to pay a premium for trips that offer red snapper. However, for the analysis we assume that trip costs are same regardless of species offerings such that the all economic value increase (surplus) from longer seasons accrues to anglers. Our estimates of the economic value associated with increased quota in the recreational sector would be higher if we were to include the value accruing to the for-hire sector operators/producers. The potential consequences for our results of relaxing the key assumptions we have described are summarized in Table 7 .

Calculation of the Net Benefit of Two Red Snapper Harvested per Trip

Following Agar and Carter (2012a,b) we use the results from an analysis of a stated preference choice experiment conducted in 2003 (Carter and Liese 2012). In this analysis, the total benefit[31] for harvest of species *j* per trip by angler *i* is given by

(1)	$$\boldsymbol{TB_{ij}(h) = \beta_{ij} \sinh^{-1} h_j}$$

where β_{ij} is a preference parameter for the harvest of h_j number of fish of species *j*. The preference parameters are randomly distributed and correlated across species as a multivariate normal: $\beta_{ij} \sim N(\bar{\beta}_j, \Omega)$ where a $\bar{\beta}_j$ is the mean vector and Ω is the covariance matrix for the joint distribution. Expression 1 measures the amount of money you would have to take from angler *i* to make him indifferent to harvesting *h* fish per trip versus no fish per trip. Figure 2 shows the total benefit function plotted over the number of fish harvested per trip for each species evaluated at the

[31] Total benefit is measured by the compensating variation that equates the indirect utility of a trip harvesting *h* fish of species *j* with the indirect utility of a trip that harvests zero fish of species *j*.

mean value of the preference parameter.[32] This figure suggests that the average angler would be willing to pay around $200 to keep two red snapper on a trip versus a trip where no red snapper could be kept. Note, however, that we are assuming that red snapper harvest increases with an extended season because anglers redirect from harvesting another species. Therefore, we need to subtract the total anglers get from the harvest of their next preferred species to get a net benefit for the opportunity to harvest two red snapper on a trip. We used the following Monte Carlo simulation to estimate this net benefit and associated confidence bounds:

1. Draw 10,000 vectors of 14 parameters from the multivariate normal, including 4 species preference parameters, $(\bar{\beta}_1, \bar{\beta}_2, \bar{\beta}_3, \bar{\beta}_4)$, and the 10 components, $(\rho_{11}, \rho_{21}, \rho_{22}, \rho_{31}, \rho_{32}, \rho_{33}, \rho_{41}, \rho_{42}, \rho_{43}, \rho_{44})$, of the lower triangular Cholesky factorization matrix corresponding to the estimate of Ω. The mean preference parameters and Cholesky terms along with the corresponding covariance matrix are shown in the Appendix.
2. For each of the 10,000 vectors of preference parameters and lower triangular Cholesky factorization matrix elements drawn in step 1:
    a. Draw 10,000 "anglers" or coefficient vectors, $(\bar{\beta}_{i1}, \bar{\beta}_{i2}, \bar{\beta}_{i3}, \bar{\beta}_{i4})$, from the multivariate normal using the mean preference parameters and the Cholesky factorization matrix terms as follows:

$$\begin{pmatrix} \beta_{i1} \\ \beta_{i2} \\ \beta_{i3} \\ \beta_{i4} \end{pmatrix} = \begin{pmatrix} \bar{\beta}_1 \\ \bar{\beta}_2 \\ \bar{\beta}_3 \\ \bar{\beta}_4 \end{pmatrix} + \begin{bmatrix} \rho_{11} & & & \\ \rho_{21} & \rho_{22} & & \\ \rho_{31} & \rho_{32} & \rho_{33} & \\ \rho_{41} & \rho_{42} & \rho_{43} & \rho_{44} \end{bmatrix} \begin{bmatrix} \zeta_{i1} \\ \zeta_{i2} \\ \zeta_{i3} \\ \zeta_{i4} \end{bmatrix}$$

[32] The graph is plotted from zero to five fish, but the original experiment did not include alternative trips in which no fish were harvested. Hence the value of one fish is an out-of-sample extrapolation. Zero marginal value for zero fish is a quite plausible assumption.

where the ζ terms are drawn from the standard normal distribution.

b. Calculate total benefit for two fish per trip for each species for each of the 10,000 "anglers" drawn in 2a using equation 1.

c. Based on the results in 2b, keep the "red snapper anglers" where the total benefit for red snapper is greater than the total benefit for other species.

d. For each "red snapper angler", calculate the net benefit as the total benefit for red snapper minus the total benefit for the species with the next highest total benefit.

e. Return the mean (and median) net benefit over the vector calculated in 2d.

3. Calculate the mean and confidence bounds based on the 10,000 estimates of the mean and median net benefit generated by evaluating step 2 on each of the vectors drawn in step 1.

This measure of net benefit is converted to net benefit per pound by dividing by the pounds per fish and the number of fish harvested on the trip, assumed to be two fish based on the current bag limit.

The results of the simulation are shown in Table 8. On average around 20% of the 10,000 anglers "preferred" red snapper over the other three species, i.e., these anglers had a total benefit for red snapper that was higher than the total benefit for any other species. The mean and confidence bounds are shown for the simulated mean and median net benefit estimates in 2003 and 2012 dollars. We also show the results converted to the net benefit per pound. The estimates range from $8 to $12 per pound in 2012 dollars. Note that these confidence bounds only account for parameter uncertainty and the heterogeneity angler preferences. There are other potential sources (e.g., structural or model) of uncertainty that are not captured.

Recreational Sector Results

Table 9 shows the economic value of changes in the red snapper allocation to the recreational sector. The allocation is shown in the first column and the change in the allocation from the Alternative 1 (status quo) is shown in the second column. The numbers in the second column are multiplied by the *mean* net benefit per pound in 2012 dollars ($11.21) from Table 8 to get the change in economic value relative to the status quo that is presented in the last column. This simple method ensures that the change in economic value moves in the same direction and is proportional to the change in allocation to the recreational sector.

Results and Conclusions

Amendment 28 to the GOM Reef Fish FMP is revisiting the existing allocation formula between the commercial and recreational sectors. Specifically, the Amendment is considering alternatives that would increase the recreational sector allocation between 3% and 10% or assigning 25% or 100% of the quota increases to the recreational sector when snapper quota is greater than 9.12 mp ww.

This analysis shows that on economic efficiency grounds, benefits to the nation could be increased by redistributing some of the quota from the commercial to the recreational sector. In general, the larger the share of quota redistributed to the recreational sector, the greater the economic benefits to the nation. The analysis suggests that the 10% redistribution alternative generates the most benefits to the nation, at about $6.16 million annually whereas the 3% redistribution alternative generates the least benefits to the nation of about $1.92 million annually. Table 9 summarizes the key results of the analysis. We caution, however, that the results of this analysis are conditional on a number of simplifying assumptions and, strictly speaking, apply at the margin and to the quota level at the time the data were collected. The methods and assumptions become tenuous at "large" reallocations. As emphasized in our previous allocation work (Agar

and Carter 2012a, b), more and better data and analysis are necessary to accurately measure the potential economic implications of relatively large reallocations of fishery stocks as well as adequately capture other economic surpluses in the wholesale and retail markets. However, some of these surpluses are not expected to be large due to the presence of substitutes.

Finally, it should be pointed out, that National Standard 5 of the Magnuson Stevens Reauthorization Act of 2006 states "Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose." In other words, economic efficiency considerations alone should not be the only guiding criteria for making re-allocation decisions.

Table 2. Gulf of Mexico Red Snapper Allocation Alternatives

Alternative	Commercial Sector Quota (Million Pounds Whole Weight)	Commercial Sector %	Recreational Sector Quota (Million Pounds Whole Weight)	Recreational Sector %
1 (Status Quo)	5.610	51.0	5.390	49.0
2	5.280	48.0	5.720	52.0
3	5.060	46.0	5.940	54.0
4	4.510	41.0	6.490	59.0
5	5.121	46.6	5.879	53.4
6	4.651	42.3	6.349	57.7

Table 3. Descriptive Statistics of the Variables Used in the Analysis (n=72)

Variable	Mean	Median	Std. dev.	Min	Max
Red snapper monthly allocation price ($/lb)	2.84	2.98	0.34	1.99	3.31
Red snapper monthly dockside price ($/lb)	4.37	4.42	0.13	4.05	4.54
Diesel #2 price index	0.85	0.83	0.21	0.44	1.36
Red Snapper commercial quota (Million Pounds Gutted Weight)	2.81	2.99	0.52	2.30	3.71

Sources: NOAA IFQ Database and BLS. All prices are adjusted to 2012 dollars using the CPI.

Table 4. Allocation Price Regression Results (n=72)				
Independent Variables	Model 1	Model 2	Model 3	Model 4
Intercept	-6.70523*** (0.61902)	-6.81492*** (0.60554)	0.77921 (1.31535)	1.51673 (1.43179)
Monthly dockside price	2.13208*** (0.14335)	2.15326*** (0.14021)	0.45214 (0.29226)	0.34118 (0.30846)
Diesel #2 price index	-0.12826 (0.09848)	-0.16243** (0.09714)	-0.15544 (0.13327)	-0.23727* (0.13504)
Commercial Quota	0.11914*** (0.04145)	0.13078*** (0.04237)	-0.09668 (0.06520)	-0.20046** (0.08734)
Quarter 2		0.05893 (0.05162)		0.05401 (0.04198)
Quarter 3		0.05534 (0.05287)		0.13020** (0.04961)
Quarter 4		-0.06062 (0.05252)		0.06270 (0.05119)
Year 2008			0.20261** (0.08427)	0.20201*** (0.08185)
Year 2009			0.52325*** (0.09461)	0.50200*** (0.09345)
Year 2010			0.68000*** (0.10973)	0.72767*** (0.11596)
Year 2011			0.74341*** (0.12851)	0.85477*** (0.14463)
Year 2012			0.76603*** (0.14856)	0.91003*** (0.17169)
R Squared	0.7976	0.8176	0.8851	0.8978
Adjusted R Squared	0.7886	0.8008	0.8705	0.8791
F Value	89.31	48.56	60.66	47.92
Prob.> F	<.0001	<.0001	<.0001	<.0001

Table 5. Predicted Mean Allocation Price at Different Quota Levels

Quota (Million Pounds Gutted Weight)	Predicted Price ($/lb)		
	Mean	95Lower	95Upper
4.06	2.95	2.69	3.21
4.19	2.93	2.66	3.19
4.56	2.85	2.56	3.15
4.61	2.84	2.55	3.14
4.76	2.81	2.50	3.12
5.06	2.75	2.41	3.10

Table 6. Annual Economic Cost (Losses) to the Commercial Sector of the Various Reallocation Alternatives.

Alternative	Quota (Million Pounds Gutted Weight)	Quota share (%)	Poundage lost relative to Alt. 1	Economic cost (losses) ($ million/year)
1 (Status quo)	5.06	51	-	-
2	4.76	48	0.30	0.8 (0.7-0.9)
3	4.56	46	0.50	1.4 (1.2-1.6)
4	4.06	41	1.00	2.9 (2.6-3.2)
5	4.61	46.6	0.45	1.3 (1.1-1.4)
6	4.19	42.3	0.87	2.5 (2.2-2.7)

Table 7. Effect of Relaxing Key Assumptions in Recreational Sector Analysis

Assumption	Relaxing Assumption Makes Results
No new anglers or trips	Higher
All trips harvest two red snapper	Higher
Data from 2003	?
Only measured value to angler (i.e., for-hire operators not included)	Higher

Table 8. Net Benefit for Two Red Snapper Keep Calculated from the Simulation

	Simulated Mean	Simulated Median
--Net Benefit (2003 dollars)--		
Mean	$114.06	$92.75
95Lower	$104.71	$84.09
95Upper	$123.73	$101.74
--Net Benefit (2012 dollars)--		
Mean	$142.11	$115.56
95Lower	$130.46	$104.76
95Upper	$154.16	$126.76
--Net Benefit per pound (2012 dollars)--		
Mean	$11.21	$9.11
95Lower	$10.29	$8.26
95Upper	$12.16	$10.00

Notes: The 2003 dollars are inflated to 2012 dollars using the January CPI from series CUSR0000SA0. The net benefit per pound is based on two fish at 6.34 pounds each.

Table 9. Economic Value of Changes in the Red Snapper to the Recreational Sector

Alternative	Recreational Allocation (Million Pounds Whole Weight)	Change in Recreational Allocation from Alt1	Change in Economic Value to Anglers Relative to Alt1 (Millions$)
1 (Status Quo)	5.39		
2	5.72	0.33	$2.72
3	5.94	0.55	$4.53
4	6.49	1.1	$9.06
5	5.88	0.49	$4.03
6	6.35	0.96	$7.90

Table 10. Change in Benefits (Millions of Dollars) to the Commercial and Recreational Sectors and the Net Benefits of the Alternative Allocations Relative to the Status Quo (Alternative 1)

Alternative	Commercial	Recreational	Net
2	-$0.80	$2.72	$1.92
3	-$1.40	$4.53	$3.13
4	-$2.90	$9.06	$6.16
5	-$1.30	$4.03	$2.73
6	-$2.50	$7.90	$5.40

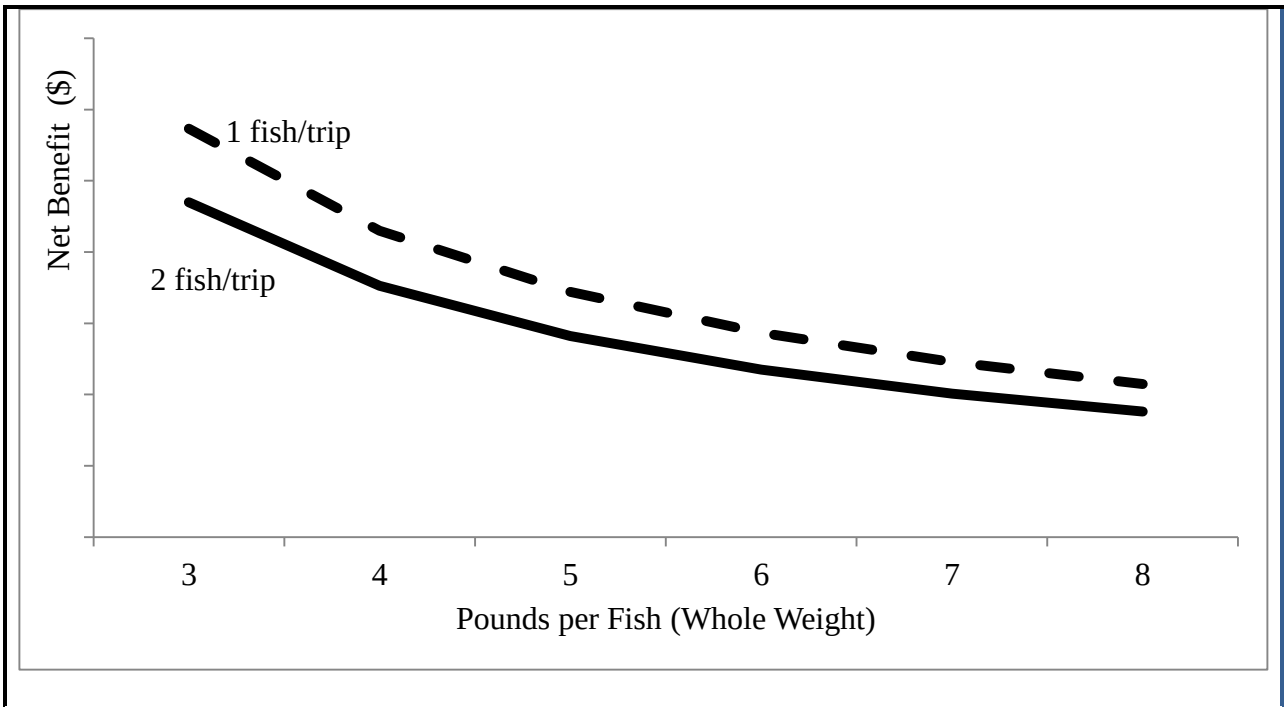

Figure 1. Sensitivity of Recreational Net Benefit Calculations to Pounds per Fish and the Number of Fish Harvested per Trip.

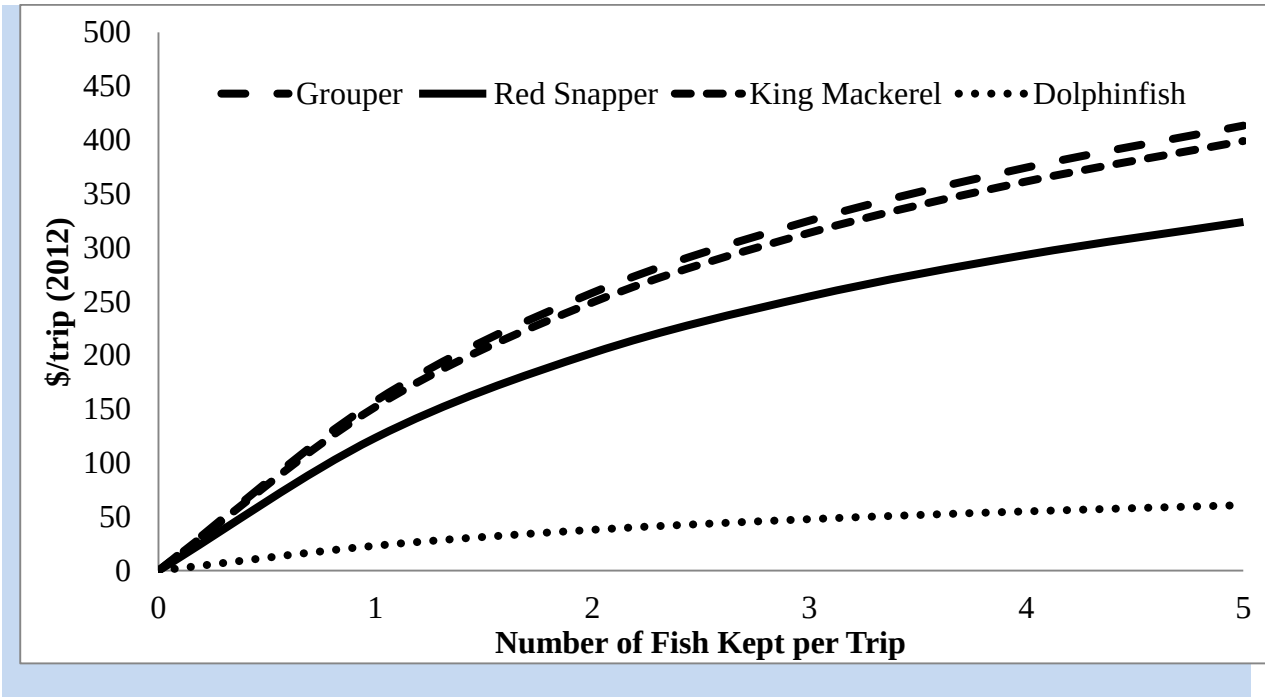

Figure 2. Average Angler Total Benefit by Number of Fish Kept per Trip for each Species

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Appendix A: Discussion of the Derived Demand Approach to Benefits Estimation in the Commercial Sector

This approach models how fishermen choose their profit maximizing species mix at the trip level given quasi-fixed inputs (e.g., capital and labor available), weather, resource constraints, relative product prices, etc. These models can examine how fishermen would change their harvest mix and revenue stream if either quota(s) were imposed or quota levels were changed. This can be done by imputing a *virtual or net dockside price (i.e., dockside price minus allocation price)* for each of the quota-constrained species.[33] After determining the impact of virtual prices on the harvest level and mix of the fleet, the economic impact of quota changes can be calculated by integrating under the allocation price curve.

For the red snapper allocation analysis, we estimated the output (harvest) supply functions derived from two different Leontief revenue specifications. The first specification included two species (i.e., red snapper and other species) and the second one included three species (i.e., red snapper, other mid-water snappers-mainly vermilion snapper, and other species). These models regressed each species (or species' group) harvest per trip against relative dockside prices (virtual price for red snapper since it was quota constrained), quasi-fixed input (i.e., crewdays*vessel length), and dummy variables for quarter, year, and region (i.e., Panhandle Florida plus Alabama and Mississippi, Non-Panhandle Florida, Texas, Louisiana).

In general, we found that own-price elasticity of supply of red snapper was positive but fairly inelastic suggesting that fishermen have limited ability to re-adjust their production of red snapper in response to changes in its own-virtual price. To examine the economic effect of changing quota levels, we assumed that fishermen would take same number of trips as in 2012 and would readjust

[33] Virtual prices are equivalent to those 'net' dockside prices (i.e., dockside price minus allocation price) that would induce a fishing vessel operating without quota constrains to operate in the same manner as when faced with quotas (Squires and Kirkley, 1991).

their catch mix in response to changes in red snapper's virtual price. Unfortunately, these models predicted that the fleet could not exhaust the 36.4% increase in red snapper quota, from 3.71 mp gutted weight (gw) in 2012 to 5.06 mp gw in 2013, by re-organizing their product mix at the 2012 effort levels indicating that the relatively large quota increase could only be absorbed with additional trips. Because we do not have the information on rental prices for quasi-fixed inputs (i.e., of crew days times vessel length) currently we cannot determine how effort would change in response to changes in the quota/virtual price (Squires and Kirkley, 1991).

Appendix B: Materials for the Monte Carlo Simulation in the Recreational Sector Analysis

Table B.1. Mean Parameters

Species	Type	Symbol	Mean Estimate	Covariance Matrix Label
dolphin	Beta	β_3	2.1	d
dolphin, grouper	Cholesky	ρ_{13}	0.549	dg
dolphin, red snapper	Cholesky	ρ_{23}	0.423	dr
grouper	Beta	β_1	1.43	g
king mackerel	Beta	β_4	1.38	k
king mackerel, dolphin	Cholesky	ρ_{34}	0.985	kd
king mackerel, grouper	Cholesky	ρ_{14}	0.813	kg
king mackerel, red snapper	Cholesky	ρ_{24}	0.0242	kr
red snapper	Beta	β_2	1.12	r
red snapper, grouper	Cholesky	ρ_{12}	0.859	rg
dolphin, dolphin	Cholesky	ρ_{33}	10.7	dd
grouper, grouper	Cholesky	ρ_{11}	1.51	gg
king mackerel, king mackerel	Cholesky	ρ_{44}	1.69	kk
red snapper, red snapper	Cholesky	ρ_{22}	1.03	rr

Table B.2. Covariance Matrix

	d	dg	dr	g	k	kd	kg	kr	r	rg	dd	gg	kk	rr
d	0.0873	0.00136	0.00101	0.00349	0.00422	0.00201	0.00111	2.96E-05	0.0028	0.00115	-0.00072	0.00217	0.00243	0.00158
dg	0.00136	0.00159	0.000848	0.000605	0.00048	0.00111	0.000153	3.24E-05	0.000396	0.000316	0.00495	0.000587	0.000635	0.000371
dr	0.00101	0.000848	0.00127	0.000445	0.000372	0.000806	0.000184	-5.6E-05	0.000309	0.000256	0.00438	0.000434	0.0005	0.000343
g	0.00349	0.000605	0.000445	0.00365	0.00171	0.000997	0.00079	6.19E-05	0.00131	0.000792	0.00982	0.00159	0.00168	0.00102
k	0.00422	0.00048	0.000372	0.00171	0.00416	0.000905	0.000852	3.23E-05	0.0012	0.000784	0.00925	0.00134	0.00166	0.000872
kd	0.00201	0.00111	0.000806	0.000997	0.000905	0.00269	0.000479	5.12E-05	0.000694	0.000566	0.00843	0.000982	0.00114	0.000656
kg	0.00111	0.000153	0.000184	0.00079	0.000852	0.000479	0.0022	-0.00019	0.000613	0.000656	0.00636	0.000971	0.000918	0.000552
kr	2.96E-05	3.24E-05	-5.6E-05	6.19E-05	3.23E-05	5.12E-05	-0.00019	0.000841	1.44E-05	-5.6E-05	-0.00015	6.38E-05	0.000101	6.16E-05
r	0.0028	0.000396	0.000309	0.00131	0.0012	0.000694	0.000613	1.44E-05	0.00291	0.000575	0.00713	0.00106	0.00118	0.00071
rg	0.00115	0.000316	0.000256	0.000792	0.000784	0.000566	0.000656	-5.6E-05	0.000575	0.00146	0.00632	0.00103	0.000991	0.000559
dd	-0.00072	0.00495	0.00438	0.00982	0.00925	0.00843	0.00636	-0.00015	0.00713	0.00632	0.132	0.0103	0.012	0.00657
gg	0.00217	0.000587	0.000434	0.00159	0.00134	0.000982	0.000971	6.38E-05	0.00106	0.00103	0.0103	0.00239	0.00172	0.00101
kk	0.00243	0.000635	0.0005	0.00168	0.00166	0.00114	0.000918	0.000101	0.00118	0.000991	0.012	0.00172	0.00312	0.00111
rr	0.00158	0.000371	0.000343	0.00102	0.000872	0.000656	0.000552	6.16E-05	0.00071	0.000559	0.00657	0.00101	0.00111	0.00144

Mathematica Notebook for the Net Benefit of 2 Red Snapper Harvested on a Trip (referred to as "Net WTP" in the Notebook)

Total willingness-to-pay (WTP) function

```
twtp=b ArcSinh[h];
```

Parameters from the 2003 SPCE model (grouper, red snapper, dolphinfish, and king mackerel)

Mean (scaled) random parameter vector and corresponding covariance matrix

```
betas={1.430,1.120,2.100,1.380} ;
cov={{3.450,1.510,5.901,0.205},
   {1.510,1.970,4.543,0.557},
   {5.901,4.543,115.000,10.579},
   {0.205,0.557,10.579,4.840} };
```

Select the number corresponding to the species for the rest of the analysis (red snapper is species 2)

```
sn=2.;
```

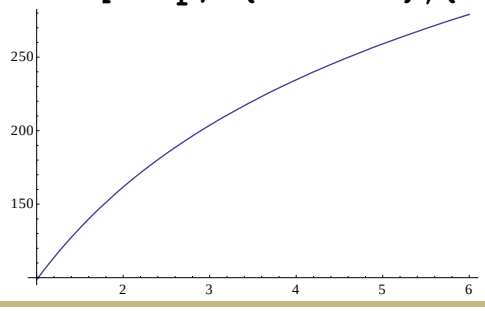
Plot of total willingness-to-pay parameterized with the mean species parameter from the 2003 SPCE model

Select the mean parameter of the species of interest and rescale

```
beta=betas[[sn]] 100.;
```

Plot of the total from one to six fish

```
Plot[twtp/.{b→beta},{h,1,6}]
```



Total WTP per trip at one and two fish

```
twtp/.{b→beta, h→1}
```

```
twtp/.{b→beta, h→2}
 98.7138
 161.687
```

Set seed for random draws

```
SeedRandom[1234];
```

Function to select rows from a matrix based on criteria applied to one column.

```
select[table:{colNames_List,rows__List},where[condition_]]:
=With[{selF=Apply[Function,Hold[condition]/.Dispatch[Thread
[colNames→Thread[Slot[Range[Length[colNames]]]]]]]},Select[
{rows},selF@@#&]];
```

Parameter estimates and related covariance matrix from the RPL model, including the heterogeneity (covariance) terms.

```
betas0={2.1,0.549,0.423,1.43,1.38,0.985,0.813,0.0242,1.12,0
.859,10.7,1.51,1.69,1.03};
cov0=Import["C:\\Users\\dcarter\\Desktop\\working\\projects
\\seConjoint2003\\output\\BIOGEME\\runToGetVCOV\\vcov.csv"]
;
```

Create a multivariate normal distribution with the mean parameter estimates and related covariance matrix from the RPL model.

```
betasn0=MultinormalDistribution[betas0,cov0];
```

Draw 10,000 vectors of the parameter estimates from the RPL model, including the heterogeneity (covariance) terms.

```
betasn0100=RandomVariate[betasn0,10000.] ;
```

Functions to correctly order the parameter vector and Cholesky matrix and to reconstruct the covariance matrix of the random parameters.

```
 cbetas[b_]:={b[[4]],b[[9]],b[[1]],b[[5]]}
ccol[c_]:=
 (
  cc={
    {c[[12]],0,0,0},
    {c[[10]],c[[14]],0,0},
    {c[[2]],c[[3]],c[[11]],0},
    {c[[7]],c[[8]],c[[6]],c[[13]]}
```

```
    }
  )
ccov[c_]:=
 (
  ccol[c].ConjugateTranspose[ccol[c]]
  )
 MatrixForm[ccol[betas0]]
MatrixForm[ccov[betas0]]
MatrixForm[cov]
 (_{
  {1.51, 0, 0, 0},
  {0.859, 1.03, 0, 0},
  {0.549, 0.423, 10.7, 0},
  {0.813, 0.0242, 0.985, 1.69}
 }_)
 (_{
  {2.2801, 1.29709, 0.82899, 1.22763},
  {1.29709, 1.79878, 0.907281, 0.723293},
  {0.82899, 0.907281, 114.97, 10.9961},
  {1.22763, 0.723293, 10.9961, 4.48788}
 }_)
 (_{
  {3.45, 1.51, 5.901, 0.205},
  {1.51, 1.97, 4.543, 0.557},
  {5.901, 4.543, 115., 10.579},
  {0.205, 0.557, 10.579, 4.84}
 }_)
```

Function to calculate the net WTP for *fish* red snapper on a trip when red snapper is available given *d* draws from a multiviariate normal distribution of random parameters given a vector *betasa* including the four preference parameters and the 10 elements of the lower triangular Cholesky matrix corresponding with the preference parameter covariance matrix.

```
 netWTP[fish_,d_,betasa_]:=
 (

betasns100=Table[cbetas[betasa]+Transpose[ccol[betasa]].Ran
domVariate[NormalDistribution[],4],{i,1,d}] 100;
  wtp2=Table[twtp/.{b→betasns100[[All,i]],
h→fish},{i,1,4}];
  wtp2[[3,All]]=wtp2[[3,All]]/10;
  wtp2t=Transpose[wtp2];
```

```
  tt=Table[Max[wtp2t[[i,All]]]==wtp2t[[i,2]],{i,d}];
  wtp2tf=MapThread[Prepend,{wtp2t,tt}];

wtp2tff=Prepend[wtp2tf,{"rsmax","wtp2g","wtp2r","wtp2d","wt
p2k"}];
  wtp2tff0=select[wtp2tff,where["rsmax"□True]];
  tt2=Table[wtp2tff0[[i,3]]-
Max[wtp2tff0[[i,{2,4,5}]]],{i,Length[wtp2tff0]}];
  drs=Length[tt2];
  {N[drs/d],If[drs□0,0,Mean[tt2]],If[drs□0,0,Median[tt2]]}
  )
```

Test evaluation for 2 fish using 10,000 draw and the means of the four preference parameters and the 10 elements of the lower triangular Cholesky matrix

```
 netWTP[2,10000.,Mean[betasn0]]
 {0.2328,114.867,93.2638}
```

Launch the kernels used for parallel evaluation and distribute the netWTP function to each kernal.

```
 LaunchKernels[]
DistributeDefinitions[netWTP]

{KernelObject[1,local],KernelObject[2,local],KernelObject[3
,local],KernelObject[4,local],KernelObject[5,local],Kernel0
bject[6,local]}
```

Use the 10,000 vectors of the parameter estimates from the RPL model to run the net red snapper WTP function 10,000 times.

```
netWTPmc=ParallelTable[netWTP[2,10000.,RandomVariate[Multin
ormalDistribution[betas0,cov0]]],{i,1.,10000.}];
```

Summary statistics from the run of the net red snapper WTP function 10,000 times

```
 Mean[netWTPmc]
Median[netWTPmc]
Quantile[netWTPmc,1-.975]
Quantile[netWTPmc,.975]
(Quantile[netWTPmc,.975]-Mean[netWTPmc])/Mean[netWTPmc]
(Quantile[netWTPmc,.025]-Mean[netWTPmc])/Mean[netWTPmc]
```

```
{0.22749,114.063,92.7491}
{0.2274,114.066,92.6894}
{0.2032,104.709,84.086}
{0.2525,123.732,101.737}
{0.109939,0.084772,0.0969103}
{-0.106774,-0.0822161,-0.0934628}
```

APPENDIX H. SENSITIVITY RUNS TO EVALUATE THE EFFECT OF RECALIBRATED RECREATIONAL REMOVALS AND RECREATIONAL SELECTIVITY

SENSITIVITY RUNS TO EVALUATE THE EFFECT OF RECALIBRATED RECREATIONAL REMOVALS AND RECREATIONAL SELECTIVITY ON ESTIMATES OF OFL, ABC AND MSY FOR GULF RED SNAPPER

Southeast Fisheries Science Center

March 9, 2015

1. INTRODUCTION

During the January 2015 Gulf of Mexico Fishery Management Council (Council) Standing and Special Reef Fish SSC meeting, the Southeast Fisheries Science Center presented the results of the Red Snapper assessment update. Center staff noted that estimates of the overfishing limit (OFL), acceptable biological catch (ABC) and maximum sustainable yield (MSY) were higher for the update than for the most recent benchmark stock assessment (SEDAR 31) and noted that this disparity likely resulted from a recent recalibration of recreational landing and discard estimates (MRIP) and a new selectivity time-block (2011-2014) added to the update assessment to accommodate a recent increase in the size of red snapper landed in the recreational sector. The Council requested two sensitivity analyses to further elucidate the reason for this disparity:

1. Project the annual OFLs at $F_{26\%SPR}$ and the ABCs at $F_{REBUILD}$ from 2015-2032 using pre-MRIP recalibrated estimates.
2. Project the annual OFLs at $F_{26\%SPR}$ and the ABCs at $F_{REBUILD}$ from 2015-2032 using pre-MRIP recalibrated estimates and no new recreational selectivity block for 201 1-2013.

2. METHODS

The requested sensitivity runs are based on the 2014 update of the SEDAR 31 Gulf of Mexico red snapper assessment (SEDAR 31). Like SEDAR 31, the update assessment and associated projections were conducted using Stock Synthesis (SS: V3.24U[1]). SS is an integrated statistical catch-at-age model which is widely used for stock assessments in the United States and throughout the world. The model, and accompanying documentation and examples are available on the NOAA Toolbox website (NOAA 2011: http://nft.nefsc.noaa.gov/SS3.html). Descriptions of SS algorithms and options were also summarized by Methot (2000) and Methot and Wetzel (2013).

Deterministic projections were run to evaluate stock status and associated retained yields for the specified sensitivity runs. Projections were run from 2015 to 2032 using the base model configuration with provisional 2014 catches as reviewed by the GMFMC SSC on February 19, 2015. Projections were run assuming that selectivity, discarding, and retention would continue as they had in three most recent years (2011-2013). The expected fishing effort levels for the 6 bycatch fleets (shrimp, recreational closed season, and commercial without IFQ allocation) in 2015-2032 were assumed be the same as in 2013. Forecast recruitments were derived from the model estimated Beverton-Holt stock-recruitment relationship, based on the recent time period (i.e., 1984-2013).

The overfishing limit (OFL) and acceptable biological catch (ABC) were calculated as stipulated by the GMFMC SSC during their January 2015 meeting in Tampa, Florida. OFL was calculated as the median (50^{th} percentile) of the probability density function (PDF) of retained yield (millions of lbs) using the projection of FSPR26%. The acceptable biological catch (ABC) was calculated at a P* of 0.427 (the 42.7^{th} percentile) of the PDF of retained yield using the projection of $F_{REBUILD}$, which achieves a gulfwide spawning potential ratio (SPR) of 26% in 2032. A P* of

[1] Stock Synthesis Version 3.24U was made available by Richard Methot (Richard.Methot@noaa.gov) on March 4, 2015. This version allows allocation fractions to vary annually during the projection.

0.427 implies a 42.7% probability of overfishing in any given year. Both sensitivity runs used a 51% commercial: 49% recreational allocation (2015-2032) when projecting OFLs and ABCs.

3. RESULTS AND DISCUSSION

Two important changes were made to the 2014 red snapper update assessment: (1) recent recreational removals were increased owing to a recent recalibration of MRIP recreational landing and discard estimates (**Figure 1**), and (2) a new selectivity time-block (2011-2014) which was added to accommodate a recent increase in the size of red snapper landed in the recreational sector (**Figure 2**). These modifications did not notably affect annual estimates of spawning stock biomass relative to the unfished condition (SSB/SSB_0**; Figure 3**)or fishing mortality (**Figure 4**) but had a modest effect on estimated recruitment (**Figure 5**).

Estimates of OFL and ABC were sensitive to the treatment of MRIP removals and recent recreational selectivity (**Table 1-2**, **Figure 6-7**). The lowest estimated OFL and ABC values occurred when using the pre-recalibrated MRIP estimates without allowing new estimates of 2011-2014 selectivity for the recreational fisheries. Intermediate OFL estimates resulted from using pre-recalibrated MRIP estimates while allowing the new selectivity estimates, and the highest OFL estimates were associated with the approved base model (Recalibrated MRIP, New Selectivity Block).

The results described in this report are dependent on a number of strong assumptions: (1) that selectivity, discarding, and retention will continue as they have in the three most recent years (2011-2013); (2) that the expected fishing effort levels for the 6 bycatch fleets will continue at 2014 levels; and (3) that forecast recruitments will continue at the average of the recent time period (i.e., 1984-2013). If any of these assumptions are violated (e.g. by a change in selectivity, retention/high-grading, environmentally driven recruitment fluctuations) the projected yields will be lower/higher than those required to permit recovery of the red snapper stock by 2032.

4. ACKNOWLEDGMENTS

Stock assessment products depend on a large team of data providers and analysts. In addition to the analytical team (Shannon Cass-Calay (lead), Clay Porch, John Walter and Jake Teztlaff, this update assessment would not have been possible without the substantial efforts of Refik Orhun, Neil Baertlein, Jessica Stephen and Andy Strelcheck (Commercial Catch), Vivian Matter (Recreational Catch and Discards), Kevin McCarthy (Commercial Discards and CPUE), Adyan Rios (Recreational CPUE), Robert Allman, Beverley Barnett and Linda Lombari-Carlson (Life History), Adam Pollock and Walter Ingram (Fishery Independent CPUE), Rick Hart and Jeff Isely (Shrimp Bycatch), Ching-Ping Chih (Size and Age Composition), Sean Powers and John Walter (ROV age composition), Matthew Campbell (Discard Mortlaity) Beverly Sauls and Alisha Gray (Headboat/Charter Discard Size/Age Comp), and Elizabeth Scott-Denton (Shimp Bycatch Size/Age Comp).

5. LITERATURE CITED

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Table 1. OFL (retained yield in millions of lbs whole weight) for the base model and two sensitivity runs. OFL was calculated as the median (50^{th} percentile) of the probability density function (PDF) of retained yield (millions of lbs) using the projection of FSPR26%.

YEAR	BASE	Pre-MRIP Recalibration	Pre-MRIP Recalibration No Sel Block
2015	16.10	15.12	13.42
2016	15.31	14.38	12.68
2017	14.79	13.90	12.31
2018	14.25	13.35	12.04
2019	13.60	12.71	11.69
2020	13.17	12.31	11.49
2021	12.93	12.08	11.36
2022	12.79	11.94	11.27
2023	12.77	11.90	11.25
2024	12.77	11.90	11.26
2025	12.78	11.90	11.26
2026	12.78	11.89	11.26
2027	12.78	11.89	11.27
2028	12.79	11.89	11.27
2029	12.79	11.89	11.27
2030	12.80	11.89	11.28
2031	12.80	11.89	11.28
2032	12.80	11.89	11.28
EQUIL	12.91	11.96	11.37

Table 2. ABC (retained yield in millions of lbs whole weight) for the base model and two sensitivity runs. ABC was calculated at a P* of 0.427 (the 42.7th percentile) of the PDF of retained yield using the projection of $F_{REBUILD}$, which achieves a gulfwide spawning potential ratio (SPR) of 26% in 2032. A P* of 0.427 implies a 42.7% probability of overfishing in any given year.

Year	BASE	Pre-MRIP Recalibration	Pre-MRIP Recalibration No Sel Block
2015	14.29	13.63	11.97
2016	13.96	13.27	11.59
2017	13.75	13.03	11.43
2018	13.39	12.63	11.28
2019	12.85	12.08	11.03
2020	12.49	11.74	10.90
2021	12.29	11.56	10.82
2022	12.18	11.44	10.75
2023	12.17	11.42	10.75
2024	12.19	11.42	10.76
2025	12.21	11.43	10.78
2026	12.22	11.43	10.77
2027	12.23	11.43	10.78
2028	12.24	11.44	10.79
2029	12.25	11.44	10.80
2030	12.26	11.44	10.80
2031	12.27	11.45	10.78
2032	12.27	11.45	10.84
EQUIL	12.40	11.53	10.93

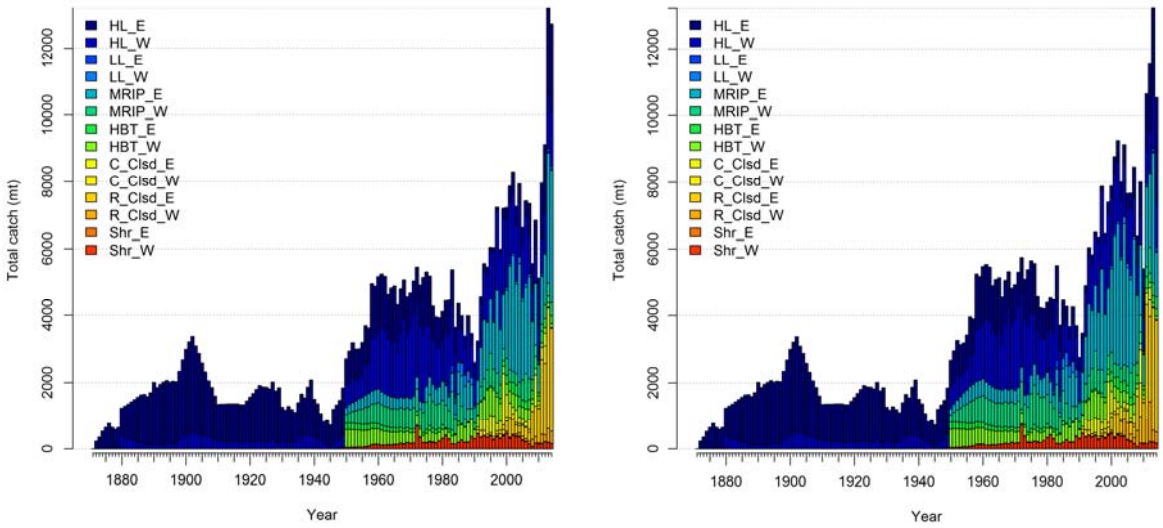

Figure 1. Gulfwide estimated red snapper removals before (left) and after (right) the MRIP recalibration.

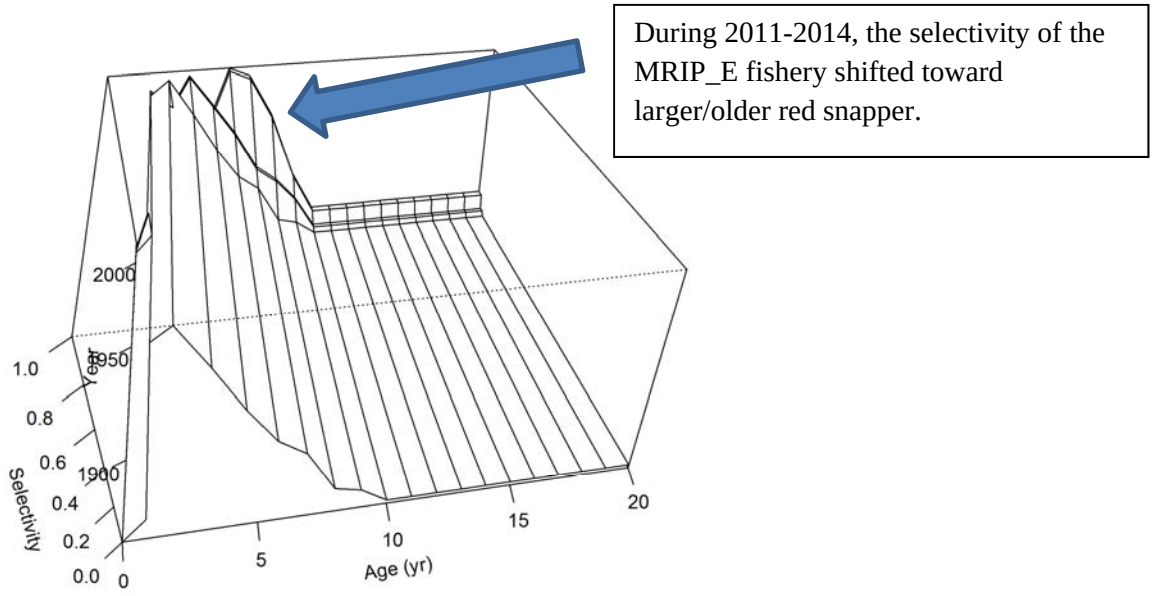

Figure 2. A representative example of the change in the selectivity of the recreational fisheries during 2011-2014. Data indicates that recreational fishers have shifted to larger/older red snapper in the most recent years.

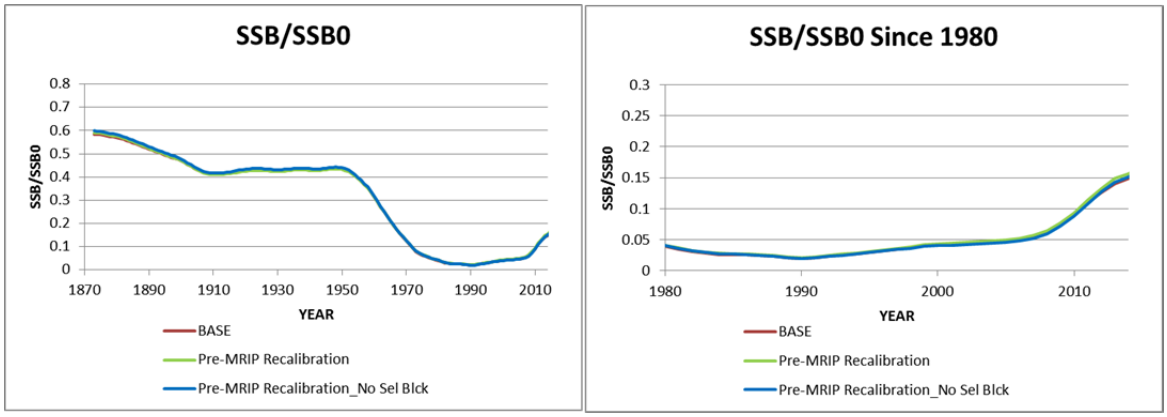

Figure 3. Annual estimates of spawning stock biomass relative to unfished levels during 1872-2013 (left) and in the recent period (right).

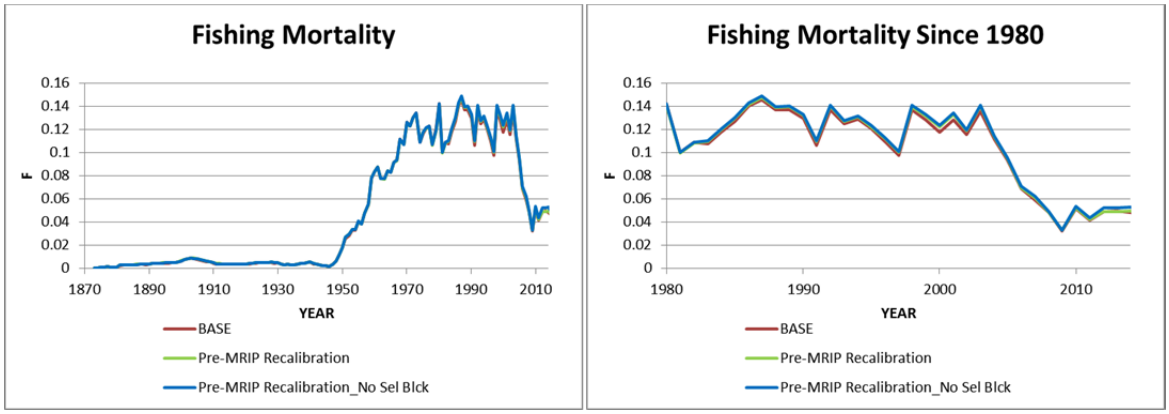

Figure 4. Annual estimates of fishing mortality (computed across all ages) during 1872-2013 (left) and in the recent period (right).

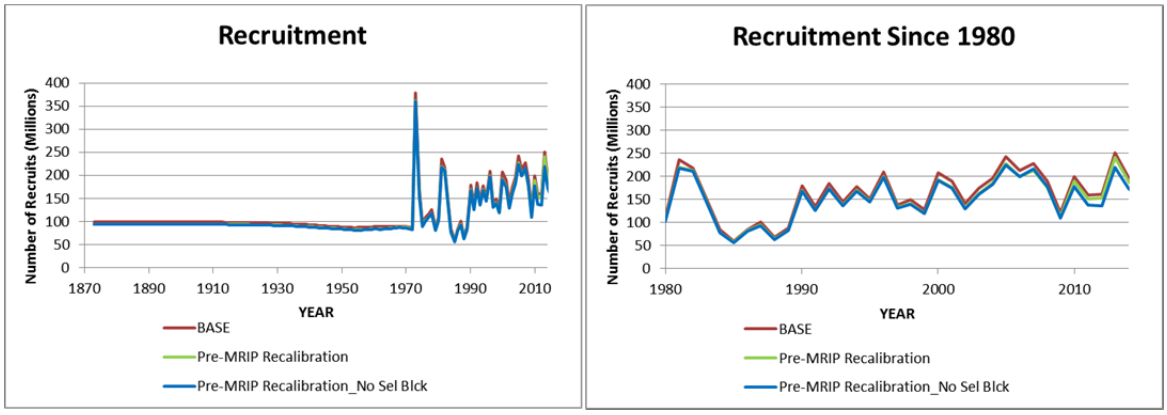

Figure 5. Annual estimates of recruitment (Age 0) during 1872-2013 (left) and in the recent period (right).

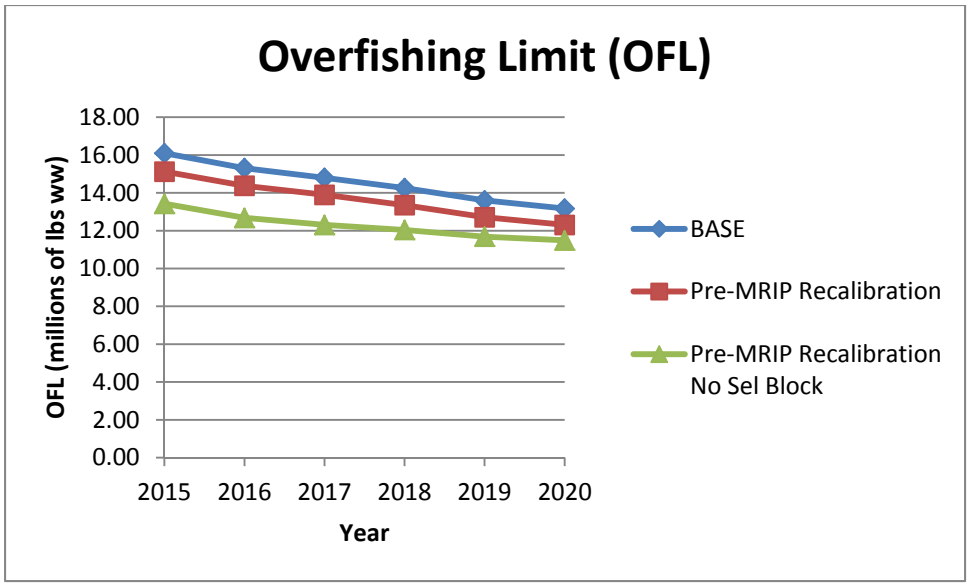

Figure 6. OFL (retained yield in millions of lbs whole weight) for the base model and two sensitivity runs. OFL was calculated as the median (50th percentile) of the probability density function (PDF) of retained yield (millions of lbs) using the projection of FSPR26%.

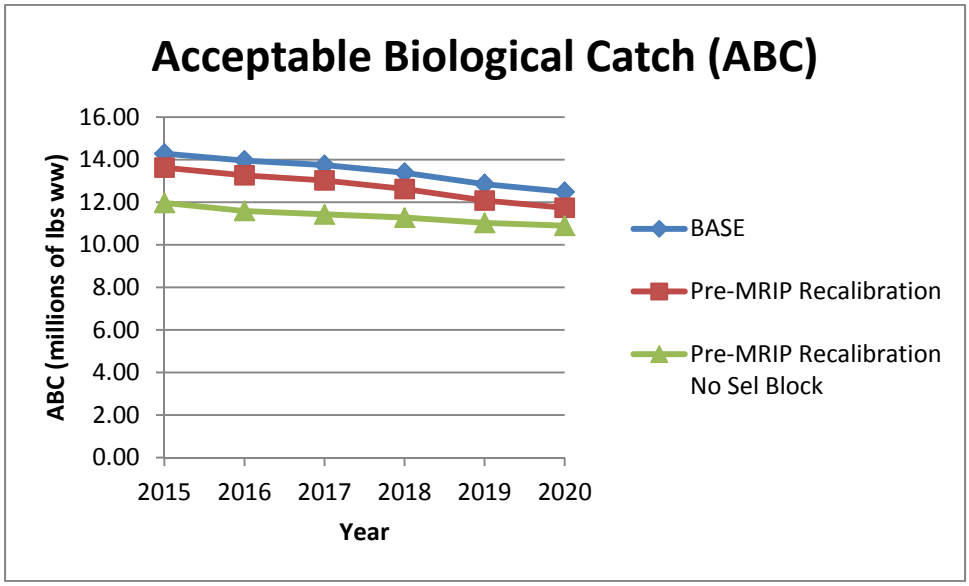

Figure 7. ABC (retained yield in millions of lbs whole weight) for the base model and two sensitivity runs. ABC was calculated at a P* of 0.427 (the 42.7th percentile) of the PDF of retained yield using the projection of $F_{REBUILD}$, which achieves a gulfwide spawning potential ratio (SPR) of 26% in 2032. A P* of 0.427 implies a 42.7% probability of overfishing in any given year.

THE EFFECT OF ALTERNATIVE ALLOCATIONS FOR THE RECREATIONAL AND COMMERCIAL RED SNAPPER FISHERIES IN THE U.S. GULF OF MEXICO

Southeast Fisheries Science Center

March 9, 2015

1. INTRODUCTION

During the January 2015 Gulf of Mexico Fishery Management Council (Council) meeting, the Council requested information pertaining to several proposed alternatives to Amendment 28 of the Reef Fish Fishery Management Plan. These concern the modification of red snapper allocation between the commercial and recreational sectors. Specifically, the Council requested projections of annual OFLs at F26%SPR and annual ABCs at $F_{REBUILD}$ for the period 2015-2032 using the base assessment model run from the most recent update stock assessment. Beginning in 2016, projections should assume the following allocations between the commercial and recreational sectors:

a) 51 % commercial, 49% recreational
b) 45% commercial: 55% recreational
c) 40% commercial, 60% recreational
d) 35% commercial, 65% recreational
e) 30% commercial, 70% recreational

For all projections, the allocation in 2015 was fixed at the current levels, 51% commercial and 49% recreational.

2. METHODS

The results presented in this paper were based on the 2014 update of the SEDAR 31 Gulf of Mexico red snapper assessment (SEDAR 31). Like SEDAR 31, the update assessment and associated projections were conducted using Stock Synthesis (SS: V3.24U[1]). SS is an integrated statistical catch-at-age model which is widely used for stock assessments in the United States and throughout the world. The model, and accompanying documentation and examples are available on the NOAA Toolbox website (NOAA 2011: http://nft.nefsc.noaa.gov/SS3.html). Descriptions of SS algorithms and options were also summarized by Methot (2000) and Methot and Wetzel (2013).

Deterministic projections were run to evaluate stock status and associated retained yields for the specified allocation scenarios. Projections were run from 2015 to 2032 using the base model configuration with updated 2014 catches as reviewed and approved by the GMFMC SSC on February 19. 2015. Projections were run assuming that selectivity, discarding, and retention would continue as they had in the three most recent years (2011-2013). The expected fishing effort levels for the 6 bycatch fleets (shrimp, recreational closed season, and commercial without IFQ allocation) in 2015-2032 were assumed be the same as in 2013. Forecast recruitments were assumed to continue at the average of the recent time period (i.e., 1984-2013).

The overfishing limit (OFL) and acceptable biological catch (ABC) were calculated as stipulated by the GMFMC SSC during their January 2015 meeting in Tampa, Florida. OFL was calculated as the median (50^{th} percentile) of the probability density function (PDF) of retained yield (millions of lbs) using the projection of FSPR26%. The acceptable biological catch (ABC) was calculated at a P* of 0.427 (the 42.7^{th} percentile) of the PDF of retained yield using the projection of $F_{REBUILD}$, which achieved a gulfwide spawning potential ratio (SPR) of 26% in 2032. A P* of 0.427 implies a 42.7% probability of overfishing in any given year.

[1] Stock Synthesis Version 3.24U was made available by Richard Methot (Richard.Methot@noaa.gov) on March 4, 2015. This version allows allocation fractions to vary annually during the projection.

3. RESULTS AND DISCUSSION

The computed OFL (retained yield in millions of lbs whole weight) was positively correlated to the magnitude of recreational allocation over the range of allocations examined (**Figure 1, Table 1**). When 49% of the catch was allocated to the recreational fisheries, the corresponding OFL was 16.1 mp in 2015, 15.31 mp in 2016 and 14.79 mp in 2017. In comparison, when 70% of the catch was allocated to the recreational fisheries, the corresponding OFL increased to 18.17 mp in 2015, 16.71 mp in 2016 and 15.89 mp in 2017.

Similarly, the computed ABC (retained yield in millions of lbs whole weight) was also positively correlated to the magnitude of recreational allocation over the range of allocations examined (**Figure 2, Table 2**). When 49% of the catch was allocated to the recreational fisheries, the corresponding ABC was 14.29 mp in 2015, 13.96 mp in 2016 and 13.75 mp in 2017. In comparison, when 70% of the catch was allocated to the recreational fisheries, the corresponding ABC increased to 16.05 mp in 2015, 15.24 mp in 2016 and 14.78 mp in 2017.

The magnitude of recreational allocation did not affect the speed of recovery to the gulfwide management target ($SSB_{SPR26\%}$; **Figure 3**). However, when the trajectory of spawning stock biomass (SSB/SSB_0) was examined by region, increasing the recreational allocation was expected to result in decreasing spawning stock biomass in the eastern Gulf of Mexico during 2015-2032, while a modest but opposite effect was observed in the western Gulf (**Figure 4**). Following a substantial recovery in the eastern Gulf during 2003–2013 (from 2% to 12% of unfished SSB) the projected spawning stock biomass in the eastern Gulf is expected to decline to 7% of unfished SSB by 2032 if the allocation is held at 49%, and to 4.6% of unfished SSB if the recreational allocation is increased to 70%.

Most recreational fishing takes place in the eastern Gulf of Mexico, therefore increasing the percent allocation of recreational fishing had the effect of increasing removals (landed and discarded dead) of the eastern stock (**Figures 5-7**) and decreasing removals from the western stock. Although the fraction of total red snapper biomass removed by all fisheries combined was insensitive to sector allocation (**Figure 5**), the fraction extracted by the MRIP_E fishery was projected to increase significantly with higher recreational allocation (**Figure 5-6**), which caused a substantial increase in the total removals of the eastern stock (**Figure 7**). When 49% of the retained yield was allocated to the recreational fishery, less than 25% of the eastern standing biomass was predicted to be removed each year. When the recreational allocation was increased to 70%, the removed fraction increased to 30% by 2030.

The predicted regional recruitments also have some influence on corresponding trends in projected spawning stock biomass. For most of the period since 1984 the estimated eastern recruitment (number of Age-0 red snapper) has generally been lower than the estimated western recruitment (**Figure 8**). The eastern stock experienced several years of fortuitously high recruitment during the 2000s that boosted spawning biomass in the short-term, but recruitment subsequently returned to intermediate levels (**Figure 8**). The projections assumed that future recruitments would continue at intermediate levels (average from 1984-2013) for each region, therefore the very stong year-classes from the 2000s eventually die off and are not fully replaced (**Figure 8**).

The results described in this report were dependent on a number of strong assumptions: 1) that selectivity, discarding, and retention will continue as they have in the three most recent years (2011-2013); 2) that the expected fishing effort levels for the 6 bycatch fleets will continue at 2013 levels; and 3) that forecast recruitments continue at the average of the recent time period (i.e., 1984-2013). If any of these assumptions are violated (e.g. by a change in selectivity, retention/high-grading, environmentally driven recruitment fluctuations) the projected yields will be lower/higher than those required to permit recovery of the red snapper stock by 2032.

4. ACKNOWLEDGMENTS

Stock assessment products depend on a large team of data providers and analysts. In addition to the analytical team (Shannon Cass-Calay (lead), Clay Porch, John Walter and Jake Teztlaff, this update assessment would not be possible without the substantial efforts of Refik Orhun, Neil Baertlein, Jessica Stephen and Andy Strelcheck (Commercial Catch), Vivian Matter (Recreational Catch and Discards), Kevin McCarthy (Commercial Discards and CPUE), Adyan Rios (Recreational CPUE), Robert Allman, Beverley Barnett and Linda Lombari-Carlson (Life History), Adam Pollock and Walter Ingram (Fishery Independent CPUE), Rick Hart and Jeff Isely (Shrimp Bycatch), Ching-Ping Chih (Size and Age Composition), Sean Powers and John Walter (ROV age composition), Matthew Campbell (Discard Mortlaity) Beverly Sauls and Alisha Gray (Headboat/Charter Discard Size/Age Comp), and Elizabeth Scott-Denton (Shimp Bycatch Size/Age Comp).

5. LITERATURE CITED

Methot, R.D., 2000. Technical description of the Stock Synthesis assessment program.NOAA Tech Memo. NMFS-NWFSC-43.SEDAR. 2013.

Methot, R.D. and Wetzel, C.R. 2013. Stock synthesis: A biological and statistical framework for fish stock assessment and fishery management. Fish. Res. 42:86-99.

NOAA Fisheries Toolbox, 2011. Stock Synthesis, Version 3.23b. http://nft.nefsc.noaa.gov

SEDAR 31 – Gulf of Mexico Red Snapper Stock Assessment Report. SEDAR, North Charleston SC. 1103 pp. Available online at: http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=31

Table 1. OFL (retained yield in millions of lbs whole weight) as a function of recreational allocation. OFL was calculated as the median (50^{th} percentile) of the probability density function (PDF) of retained yield (millions of lbs) using the projection of FSPR26%.

	OFL (Retained Yield Million Pounds Whole Weight)				
YEAR	**Rec 49%**	**Rec 55%**	**Rec 60%**	**Rec 65%**	**Rec 70%**
2015	16.10	16.70	17.19	17.69	18.17
2016	15.31	15.72	16.06	16.39	16.71
2017	14.79	15.12	15.38	15.64	15.89
2018	14.25	14.54	14.77	15.00	15.23
2019	13.60	13.87	14.09	14.31	14.52
2020	13.17	13.43	13.65	13.86	14.07
2021	12.93	13.19	13.40	13.61	13.81
2022	12.79	13.04	13.24	13.44	13.63
2023	12.77	13.01	13.20	13.39	13.57
2024	12.77	13.01	13.20	13.38	13.55
2025	12.78	13.01	13.19	13.36	13.53
2026	12.78	13.01	13.18	13.35	13.51
2027	12.78	13.01	13.18	13.34	13.50
2028	12.79	13.00	13.18	13.34	13.49
2029	12.79	13.01	13.17	13.34	13.49
2030	12.80	13.01	13.17	13.33	13.48
2031	12.80	13.01	13.18	13.33	13.48
2032	12.80	13.01	13.18	13.33	13.48
Equil	12.91	13.11	13.27	13.42	13.57

Table 2. ABC (retained yield in millions of lbs whole weight) as a function of recreational allocation. ABC was calculated at a P* of 0.427 (the 42.7th percentile) of the PDF of retained yield using the projection of $F_{REBUILD}$, which achieves a gulfwide spawning potential ratio (SPR) of 26% in 2032. A P* of 0.427 implies a 42.7% probability of overfishing in any given year.

ABC (Retained Yield Million Pounds Whole Weight)					
YEAR	**Rec 49%**	**Rec 55%**	**Rec 60%**	**Rec 65%**	**Rec 70%**
2015	14.29	14.76	15.18	15.61	16.05
2016	13.96	14.31	14.62	14.93	15.24
2017	13.75	14.04	14.29	14.53	14.78
2018	13.39	13.65	13.87	14.09	14.32
2019	12.85	13.10	13.31	13.52	13.73
2020	12.49	12.73	12.94	13.15	13.35
2021	12.29	12.54	12.74	12.94	13.14
2022	12.18	12.42	12.61	12.81	12.99
2023	12.17	12.40	12.59	12.77	12.95
2024	12.19	12.42	12.60	12.77	12.95
2025	12.21	12.43	12.60	12.77	12.94
2026	12.22	12.43	12.60	12.77	12.93
2027	12.23	12.42	12.61	12.77	12.93
2028	12.24	12.43	12.61	12.77	12.92
2029	12.25	12.44	12.61	12.77	12.92
2030	12.26	12.45	12.62	12.77	12.92
2031	12.27	12.45	12.62	12.77	12.92
2032	12.27	12.46	12.63	12.78	12.92
Equil	12.40	12.59	12.73	12.87	12.98

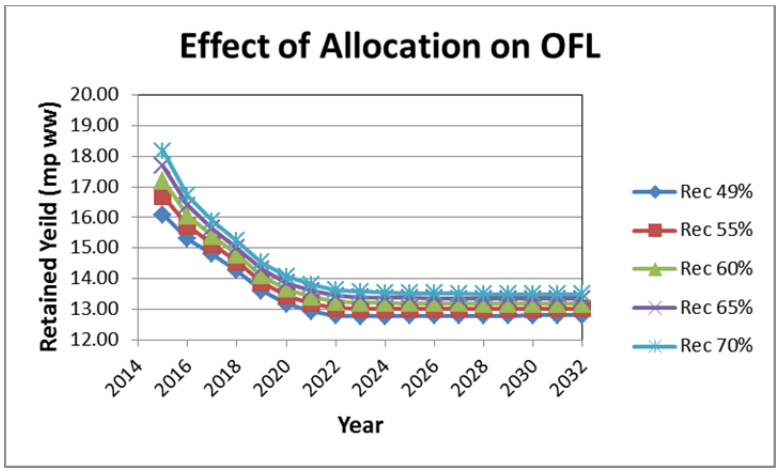

Figure 1. OFL (retained yield in millions of lbs whole weight) as a function of recreational allocation. OFL was calculated as the median (50th percentile) of the probability density function (PDF) of retained yield (millions of lbs) using the projection of FSPR26%.

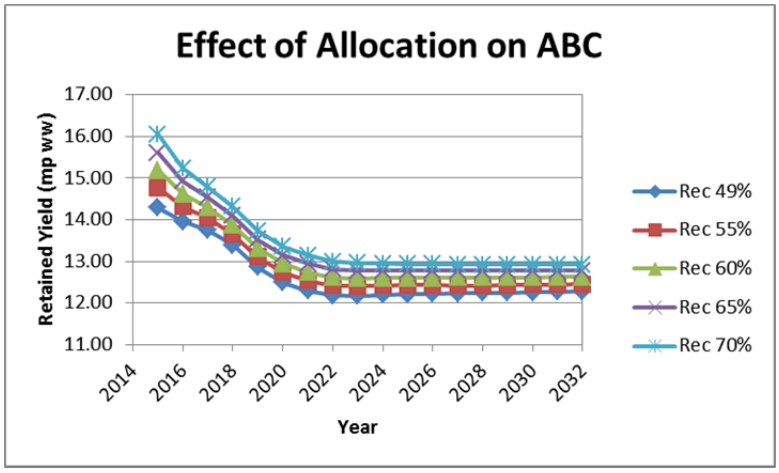

Figure 2. ABC (retained yield in millions of lbs whole weight) as a function of recreational allocation. ABC was calculated at a P* of 0.427 (the 42.7th percentile) of the PDF of retained yield using the projection of $F_{REBUILD}$, which achieves a gulfwide spawning potential ratio (SPR) of 26% in 2032. A P* of 0.427 implies a 42.7% probability of overfishing in any given year.

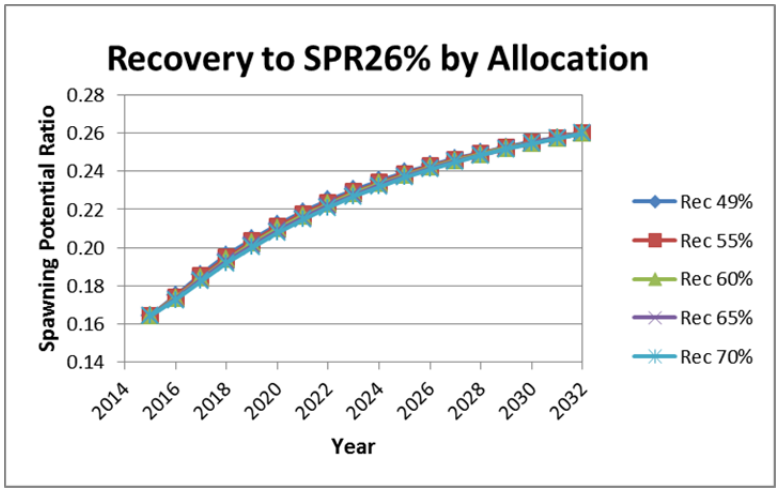

Figure 3. Recovery trajectory by allocation scenario. As expected, all scenarios achieve recovery to $SSB_{SPR26\%}$ by 2032.

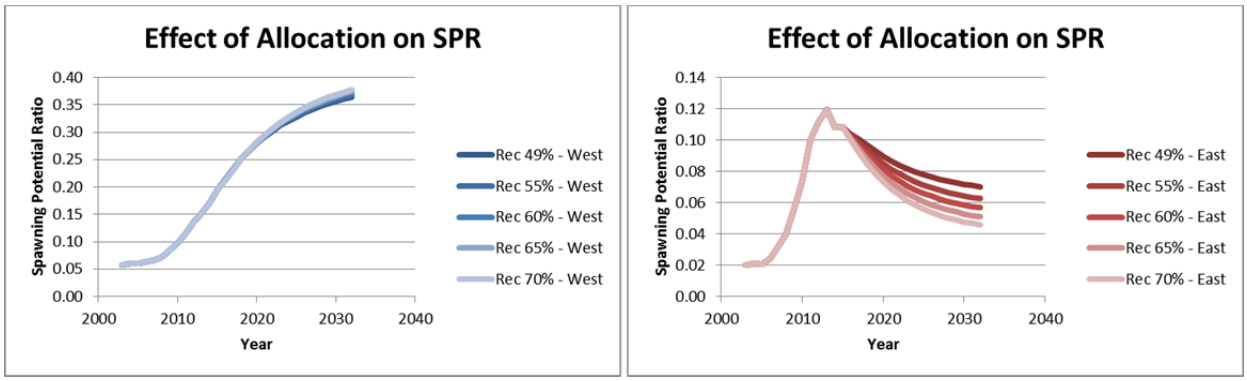

Figure 4. Effect of allocation scenario on SPR in the western Gulf (left panel) and the eastern Gulf (right panel).

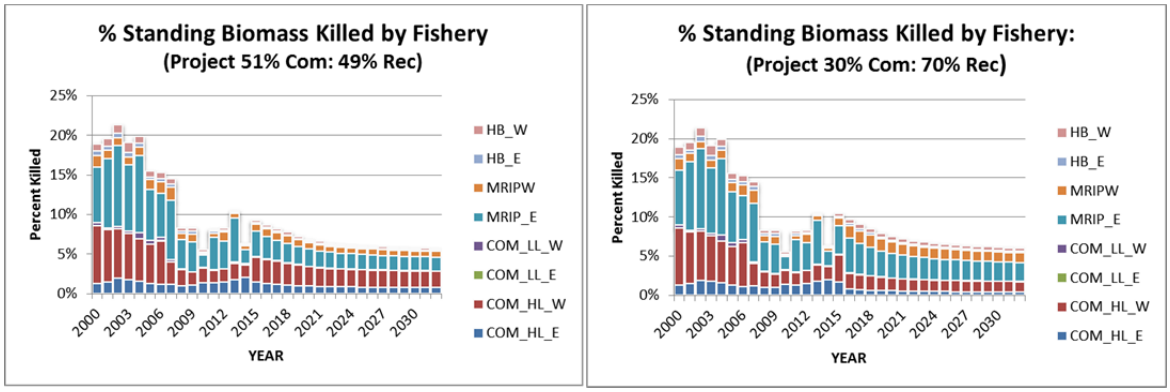

Figure 5. The fraction of total standing biomass killed by fishery at the current allocation (left panel) and at a recreational allocation of 70% (right panel).

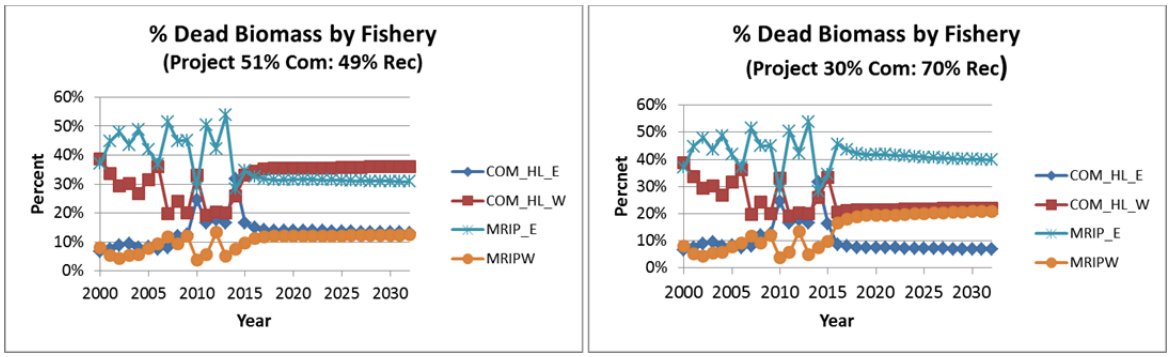

Figure 6. The fraction of total dead biomass (retained + dead discards) killed by fishery at the current allocation (left panel) and at a recreational allocation of 70% (right panel).

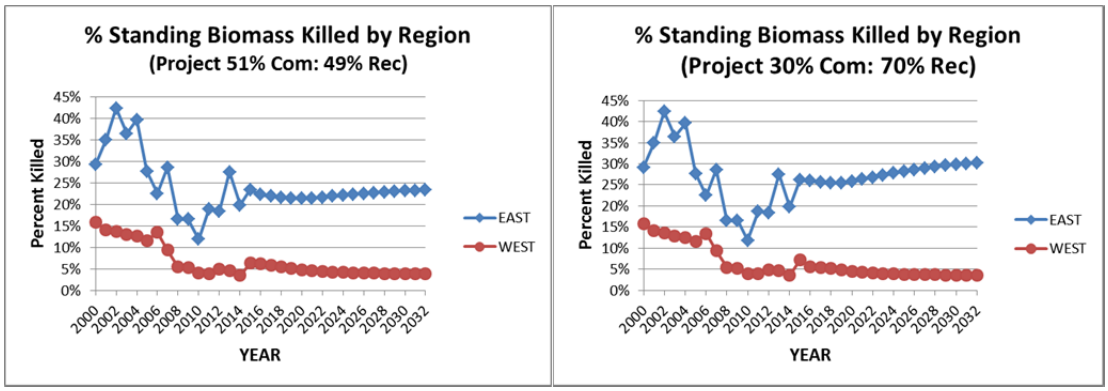

Figure 7. The fraction of total standing biomass killed by region at the current allocation (left panel) and at a recreational allocation of 70% (right panel).

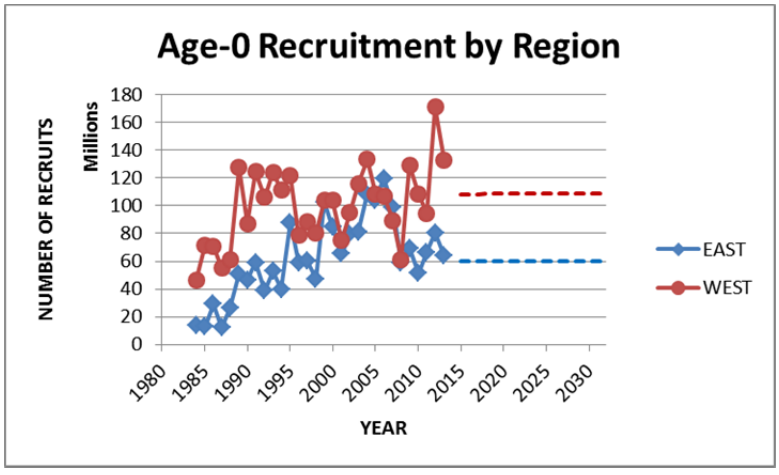

Figure 8. Observed (solid) and projected recruitment (dashed) by region.

For the reasons set out in the preamble, 50 CFR part 622 is proposed to be amended as follows:

PART 622--FISHERIES OF THE CARIBBEAN, GULF OF MEXICO, AND SOUTH ATLANTIC

1. The authority citation for part 622 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq*.

2. In § 622.39, paragraphs (a)(1)(i) and (a)(2)(i) are revised to read as follows:

§ 622.39 Quotas.

* * * * *

(a) * * *

(1) * * *

(i) *Commercial quota for red snapper*. (A) For fishing year 2015--7.293 million lb (3.308 million kg), round weight.

(B) For fishing year 2016--6.768 million lb (3.070 million kg), round weight.

(C) For fishing year 2017 and subsequent fishing years--6.664 million lb (3.023 million kg), round weight.

Comment [SS1]: Preferred Alt 8, commercial ACL (expressed as quota) for 2016 and 2017

* * * * *

(2) * * *

(i) *Recreational quota for red snapper.* (A) *Total recreational quota (Federal charter vessel/headboat and private*

angling component quotas combined).

(*1*) For fishing year 2015--7.007 million lb (3.178 million kg), round weight.

(*2*) For fishing year 2016--7.192 million lb (3.262 million kg), round weight.

(*3*) For fishing year 2017 and subsequent fishing years--7.076 million lb (3.210 million kg), round weight.

Comment [SS2]: Preferred Alt 8, total recreational ACLs (quotas) 2016 and 2017

(B) *Federal charter vessel/headboat component quota*. The Federal charter vessel/headboat component quota applies to vessels that have been issued a valid Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component quota is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--2.964 million lb (1.344 million kg), round weight.

(*2*) For fishing year 2016--3.042 million lb (1.380 million kg), round weight.

(*3*) For fishing year 2017--2.993 million lb (1.358 million kg), round weight.

Comment [SS3]: Preferred Alt 8, for-hire recreational ACLs (quotas) 2016 and 2017

(C) *Private angling component quota*. The private angling component quota applies to vessels that fish under the bag limit and

have not been issued a Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component quota is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--4.043 million lb (1.834 million kg), round weight.

(*2*) For fishing year 2016--4.150 million lb (1.882 million kg), round weight.

(*3*) For fishing year 2017--4.083 million lb (1.852 million kg), round weight.

Comment [SS4]: Preferred Alt 8, private recreational ACLs (quotas) 2016 and 2017

* * * * *

5. In § 622.41, paragraph (q)(2)(iii) is revised to read as follows:

§ 622.41 Annual catch limits (ACLs), annual catch targets (ACTs), and accountability measures (AMs).

* * * * *

(q) * * *

(2) * * *

(iii) *Recreational ACT for red snapper.* (A) *Total recreational ACT (Federal charter vessel/headboat and private angling component ACTs combined).*

(*1*) For fishing year 2015--5.606 million lb (2.543 million kg), round weight.

(*2*) For fishing year 2016--5.754 million lb (2.610 million kg), round weight.

(*3*) For fishing year 2017 and subsequent fishing years--5.661 million lb (2.568 million kg), round weight.

Comment [SS5]: Preferred Alt 8, total recreational ACTs 2016 and 2017

(B) *Federal charter vessel/headboat component ACT*. The Federal charter vessel/headboat component ACT applies to vessels that have been issued a valid Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component ACT is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--2.371 million lb (1.075 million kg), round weight.

(*2*) For fishing year 2016--2.434 million lb (1.104 million kg), round weight.

(*3*) For fishing year 2017--2.395 million lb (1.086 million kg), round weight.

Comment [SS6]: Preferred Alt 8, for-hire ACTs 2016 and 2017

(C) *Private angling component ACT*. The private angling component ACT applies to vessels that fish under the bag limit and have not been issued a Federal charter vessel/headboat permit for

Gulf reef fish any time during the fishing year. This component ACT is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(*1*) For fishing year 2015--3.234 million lb (1.467 million kg), round weight.

(*2*) For fishing year 2016--3.320 million lb (1.506 million kg), round weight.

(*3*) For fishing year 2017--3.266 million lb (1.481 million kg), round weight.

Comment [SS7]: Preferred Alt 8, private ACTs 2016 and 2017

Back

Tab B, No. 7(a)

7/30/2015

Red Snapper Commercial Quota Retention for 2016

Framework Action to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico including Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

August 2015

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COVER SHEET

Withhold a Portion of the Commercial Red Snapper Quota for 2016

Framework Action to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico including Environmental Assessment (EA), Regulatory Impact Review (RIR), and Regulatory Flexibility Act Analysis (RFAA)

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ABBREVIATIONS USED IN THIS DOCUMENT

ABC	allowable biological catch
ACL	annual catch limit
ALS	accumulated landings system
AM	accountability measure
Council	Gulf of Mexico Fishery Management Council
EA	Environmental Assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
E.O.	Executive Order
F_{level}	instantaneous fishing mortality corresponding to a given level
FMP	fishery management plan
FTE	Full-time Equivalent
GMFMC	Gulf of Mexico Fishery Management Council
Gulf	Gulf of Mexico
gw	gutted weight
IFQ	individual fishing quota
LAPP	limited access privilege program
lq	local quotient
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
mp	million pounds
MRFSS	Marine Recreational Fisheries Statistics Survey
MRIP	Marine Recreational Information Program
MSY	maximum sustainable yield
NAICS	North American Industry Classification System
NMFS	NOAA's National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	overfishing limit
P*	acceptable probability of overfishing
RFA	Regulatory Flexibility Act
RFAA	Regulatory Flexibility Act analysis
RIR	regulatory impact review
RS-IFQ	red snapper individual fishing quota program
Secretary	Secretary of Commerce
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SSC	Scientific Statistical Committee
SPR	spawning potential ratio
SRHS	Southeast Region Headboat Survey
TAC	total allowable catch
ww	whole weight

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CHAPTER 1. INTRODUCTION

1.1 Background

The Gulf of Mexico Fishery Management Council (Council) is considering modifying the commercial and recreational sector allocations for red snapper in Amendment 28 to the Fishery Management Plan (FMP) for Reef Fish Fishery of the Gulf of Mexico (Amendment 28) (GMFMC 2015). The timeline for Amendment 28 would not allow NMFS to implement the proposed redistribution of red snapper commercial quota until after January 1, 2016. The Council is expected to take final action on Amendment 28 in the fall of 2015 and in anticipation of that decision the Council has decided to set aside a portion of the red snapper commercial annual catch limit (ACL) (commercial quota) for the 2016 fishing year based on the shift in allocation that is selected in Amendment 28. If Amendment 28 is not approved at the August Council Meeting this action will not be necessary.

Amendment 28 and its Environmental Impact Statement analyzed the impacts of a reasonable range of alternatives that would change the current commercial and recreational red snapper allocation of 51:49 percent, respectively. The purpose of Amendment 28 is to reallocate the red snapper harvest consistent with the 2015 red snapper assessment update to ensure the allowable catch and recovery benefits are fairly and equitably allocated between the commercial and recreational sectors to achieve optimum yield. The current Preferred Alternative 8 would result in a 48.5 percent commercial and 51.5 percent recreational allocation.

1.2 Purpose and Need

The purpose of this action is to withhold a percentage of the 2016 commercial ACL of red snapper equivalent to the portion of the total ACL proposed for redistribution from the commercial sector to the recreational sector in Amendment 28.

The need for this action is to allow NMFS to implement a decrease in the red snapper commercial quota for the 2016 fishing year, by only distributing to shareholders the exact portion of the 2016 red snapper commercial quota the Council selects as preferred in Amendment 28. NMFS distributes the red snapper commercial quota around January 1 annually for that fishing year. This action would further the Council's mandate to prevent overfishing while achieving, on a continuing basis, the optimum yield from federally managed fish stocks, to take into account the importance of fishery resources to fishing communities, and provide for sustained participation of such communities, and to rebuild stocks that have been determined to be overfished.

1.3 History of Management

The final rule for the Reef Fish FMP (with its associated environmental impact statement [EIS]) (GMFMC 1981) was effective November 8, 1984, and defined the Reef Fish fishery management unit to include red snapper and other important reef fish. A complete history of management for the FMP is available on the Council's website:

http://www.gulfcouncil.org/fishery_management_plans/reef_fish_management.php and a history of red snapper management through 2006 is presented in Hood et al. (2007). A detailed history of the commercial red snapper IFQ program and a discussion of the program performance during the first years of the program are provided in Agar and al. (2014).

Currently, the commercial sector fishing for red snapper is regulated by a 13-inch total length (TL) minimum size limit and managed under an individual fishing quota program. Recreational fishing for red snapper is managed with a 16-inch TL minimum size limit, 2-fish bag limit, and a season beginning on June 1 and ending when the recreational quota is projected to be caught. Other reef fish fishery management measures that affect red snapper fishing include permit requirements for the commercial and for-hire sectors as well as season-area closures.

Red snapper allocation and quotas/annual catch limits (ACLs): The final rule for Amendment 1 (GMFMC 1989) to the Reef Fish FMP (with its associated environmental assessment (EA)), regulatory impact review (RIR) was effective in February 1990. The amendment specified a framework procedure for setting the total allowable catch (TAC) to allow for annual management changes. A part of that specification was to establish a species' allocation. These were based on the percentage of total landings during the base period of 1979-1987. For red snapper, the commercial sector landed 51% and the recreational sector landed 49% over the base period, hence the current 51% commercial:49%: recreational allocation. Amendment 1 also established a commercial quota allowing the Regional Administrator to close commercial red snapper fishing when the quota was caught. The recreational quota was established through a 1997 regulatory amendment (with its associated EA and RIR) (GMFMC 1995) with a final rule effective in October 1997. Prior to 1997, the recreational sector had exceeded its allocation of the red snapper TAC, though the overages were declining through more restrictive recreational management measures. With the establishment of a recreational quota, the Regional Administrator was authorized to close the recreational season when the quota is reached as required by the Magnuson-Stevens Act. Since 2010, actions to change the red snapper catch levels have been implemented through framework actions which have set TAC or quotas that are functionally equivalent to ACLs. Section 407(d) of the Magnuson-Stevens Act requires recreational and commercial quotas for red snapper in the Gulf of Mexico. The situation of not having an actual ACL, but rather functional equivalents, has resulted in awkward wording when discussing and implementing red snapper catch levels. More importantly, accountability measures are triggered by ACLs being exceeded. Amendment 40 (with an EIS, RIR, and RFA), which established two components to the recreational sector, also established that the quota for the commercial and recreational sectors are the ACLs for the respective sectors, and that the sum of the quotas is the stock-ACL (GMFMC 2015).

Red snapper IFQ program (RS-IFQ): Amendment 26 (with a supplemental environmental impact statement, RIR, and IRFA), effective on January 1, 2007, established an IFQ program for the commercial red snapper fishery (GMFMC 2006). The RS-IFQ program is a single-species, single-share category program where participants use an online account for all transactions (share and allocation transfers, landings, and cost recovery fees). For the first five years of the program (2007-2011), anyone who possessed a valid Gulf reef fish dealer permit or Gulf commercial reef fish permit was eligible to participate in the program. Beginning January 1, 2012, all U.S. citizens and permanent resident aliens were eligible to obtain a RS-IFQ

account to purchase red snapper shares and allocation. Only accounts with allocation and a valid Gulf commercial reef fish vessel permit can legally harvest red snapper. Allocation is distributed from shares on January first of each year and the allocation expires at the end of the year.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1 - Retain a Portion of the Commercial Red Snapper Quota for 2016

Alternative 1: No Action - Distribute 100% of the 2016 red snapper commercial quota to red snapper Individual Fishing Quota (RS-IFQ) account shareholders on January 1, 2016.

Alternative 2: Before the distribution of the 2016 red snapper commercial quota to RS-IFQ account shareholders**, withhold up to 34.7 % of the red snapper commercial quota**. The exact amount to be retained for later distribution will be determined by the percentage of the red snapper commercial quota that would be reallocated to the recreational sector under Reef Fish Amendment 28.

Discussion:
The Council is currently evaluating the allocation of the red snapper quota between the recreational and commercial sectors and is considering reallocation alternatives in Amendment 28 to the Reef Fish Fishery Management Plan (Reef Fish Amendment 28 – Red Snapper Allocation). For 2016, recreational and commercial quotas that would result from the reallocation alternatives in Amendment 28 are provided in Table 2.1.

Table 2.1. 2016 commercial and recreational red snapper quotas for the reallocation alternatives under consideration in Reef Fish Amendment 28. Quotas are expressed in million pounds whole weight (mp ww); Percentages are in percent of the total red snapper quota.

Alternatives in Amendment 28	2016 Red Snapper Quota				
	Total	Commercial		Recreational	
		Pounds	Percent	Pounds	Percent
Alternative 1 No Action	13.96	7.12	51.0%	6.84	49.0%
Alternative 2	13.96	6.701	48.0%	7.259	52.0%
Alternative 3	13.96	6.422	46.0%	7.538	54.0%
Alternative 4	13.96	5.724	41.0%	8.236	59.0%
Alternative 5	13.96	5.861	42.0%	8.099	58.0%
Alternative 6	13.96	4.651	33.3%	9.309	66.7%
Alternative 7	13.96	6.090	43.6%	7.87	56.4%
Preferred Alternative 8	13.96	6.768	48.5%	7.192	51.5%
Alternative 9	13.96	5.933	42.5%	8.027	57.5%

Source: Reef Fish Amendment 28

The Council has indicated that it will consider taking final action and submitting Reef Fish Amendment 28 to the Secretary of Commerce for approval and implementation during its August 2015 meeting in New Orleans, LA. Based on expected timelines for review and implementation, Reef Fish Amendment 28, if approved by the Secretary, is expected to be implemented after January 1, 2016. The commercial red snapper fishery is managed under an individual fishing program (IFQ) which distributes annual allocation to shareholders on January 1 of each year. Therefore, quota reallocations that would decrease the commercial red snapper quota (and increase the recreational quota by the same amount) would either have to be implemented before the first of the year or be delayed by a year. By withholding a portion of the commercial quota during the distribution of annual allocations to RS-IFQ shareholders, this framework action would allow adjustments (reductions) to the 2016 commercial quota after the first of the year, in accordance with the expected timeline for the implementation of Amendment 28. Based on the purpose and need for this action, the Council faces a clearly defined dichotomous choice set, i.e., the Council could either retain a portion of the 2016 commercial red snapper quota necessary to facilitate the implementation of Amendment 28 in 2016 or distribute the totality of the 2016 red snapper commercial quota to RS-IFQ account shareholders. Therefore, this framework action only includes two management alternatives.

Alternative 1 would take no action. No portion of the 2016 commercial red snapper quota would be retained. Therefore, **Alternative 1** would not allow decreases in the red snapper commercial quota after the January 1, 2016 distribution of annual allocations to RS-IFQ shareholders. Under **Alternative 1**, the Council would not be able to decrease the commercial red snapper allocation in 2016 and would delay reallocation until 2017.

Alternative 2 would allow the Council to implement a decrease in the commercial red snapper quota after January 1, 2016, by only distributing the exact portion of the 2016 commercial red snapper quota selected as preferred in Amendment 28, to shareholders. **Alternative 2** proposes to retain a portion of the 2016 commercial red snapper quota to accommodate any decrease in the 2016 commercial quota that would result from the implementation of Amendment 28. Commercial red snapper quotas for 2016 expected to result from reallocation alternatives considered in Amendment 28 and differences between the quotas and the status quo commercial quota, i.e., without reallocation, are provided in Table 2.2.

Although the Council's current preferred alternative in Amendment 28 (Preferred Alternative 8) would decrease the 2016 commercial red snapper quota by 0.352 mp or 4.9% of the 2016 commercial quota under status quo (no reallocation), Alternative 6 in Amendment 28 could potentially decrease the 2016 red snapper commercial quota by as much as 2.469 mp (or 34.7% of the status quo commercial quota). To maintain the Council's ability to select any one of the reallocation alternatives considered in Amendment 28, **Alternative 2** in this framework action proposes to retain up to the maximum amount of red snapper that could potentially be reallocated from the commercial to the recreational sector. The exact amount of red snapper to be withheld from distribution to RS-IFQ shareholders will be known as soon as the Council takes final action on Amendment 28. The amount withheld would be added to the 2016 recreational red snapper quota once the Secretary approves Amendment 28 for implementation. The amount of red snapper withheld would be distributed to RS-IFQ shareholders if the Secretary disapproves Amendment 28.

Table 2.2 2016 Commercial red snapper quotas and differences between the status quo and the commercial quotas for reallocation alternatives under consideration in Reef Fish Amendment 28. Quotas are expressed in million pounds whole weight (mp ww); Differences are expressed in mp ww and in percent of the status quo (no action) quota.

Alternative in Amendment 28	Commercial Quota in 2016	Difference	
		Pounds	Percent
Alternative 1 No Action	**7.120**	----	----
Alternative 2	6.701	0.419	5.9%
Alternative 3	6.422	0.698	9.8%
Alternative 4	5.724	1.396	19.6%
Alternative 5	5.861	1.259	17.7%
Alternative 6	4.651	2.469	34.7%
Alternative 7	6.090	1.030	14.5%
Preferred Alternative 8	6.768	0.352	4.9%
Alternative 9	5.933	1.187	16.7%

Source: Data from Amendment 28

CHAPTER 3. AFFECTED ENVIRONMENT

The affected environment as it pertains to the red snapper component of the Gulf of Mexico (Gulf) reef fish fishery has been described in detail in the following documents: Generic Essential Fish Habitat (Generic EFH) Amendment (GMFMC 2004b), February 2010 Regulatory Amendment (GMFMC 2010), January 2011 Regulatory Amendment (GMFMC 2011a), Generic Annual Catch Limit/Accountability Measures (Generic ACL/AM) Amendment (GMFMC 2011b), and March 2013 Framework Action (GMFMC 2013a). This information is incorporated by reference and is summarized below. For information on impacts of the Deepwater Horizon MC252 oil spill on the affected environment, refer to http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm.

3.1 Description of the Physical Environment

The Gulf has a total area of approximately 600,000 square miles (1.5 million km^2), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel (Figure 3.1.1). Oceanographic conditions are affected by the Loop Current, discharge of freshwater into the northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf. The Gulf includes both temperate and tropical waters (McEachran and Fechhelm 2005). Gulf water temperatures range from 54º F to 84º F (12º C to 29º C) depending on time of year and depth of water. Mean annual sea surface temperatures ranged from 73 º F through 83º F (23-28º C) including bays and bayous (Figure 3.2.1) between 1982 and 2009, according to satellite-derived measurements.[1] In general, mean sea surface temperature increases from north to south with large seasonal variations in shallow waters.

The physical environment for reef fish, including red snapper, is also detailed in the environmental impact statement (EIS) for the Generic EFH Amendment and the Generic ACL/AM Amendment (refer to GMFMC 2004a; GMFMC 2011a). In general, reef fish are widely distributed in the Gulf, occupying both pelagic and benthic habitats during their life cycle. A planktonic larval stage lives in the water column and feeds on zooplankton and phytoplankton (GMFMC 2004a). Juvenile and adult reef fish are typically demersal and usually associated with bottom topographies on the continental shelf (<100m) which have high relief, i.e., coral reefs, artificial reefs, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings. However, several species are found over sand and soft-bottom substrates. For example, juvenile red snapper are common on mud bottoms in the northern Gulf, particularly off Texas through Alabama. Also, some juvenile snapper (e.g. mutton, gray, red, dog, lane, and yellowtail snappers) and grouper (e.g. Goliath grouper, red, gag, and yellowfin groupers) have been documented in inshore seagrass beds, mangrove estuaries, lagoons, and larger bay systems (Appendix B).

In the Gulf, fish habitat for adult red snapper consists of submarine gullies and depressions, coral reefs, rock outcroppings, gravel bottoms, oilrigs, and other artificial structures (GMFMC 2004a); eggs and larvae are pelagic; and juveniles are found associated with bottom inter-shelf habitat (Szedlmayer and Conti 1998) and prefer shell habitat over sand (Szedlmayer and Howe 1997).

[1] NODC 2012: http://accession.nodc.noaa.gov/0072888

Adult red snapper are closely associated with artificial structures in the northern Gulf (Szedlmayer and Shipp 1994; Shipp and Bortone 2009) and larger individuals have been found to use artificial habitats, but move further from the structure as they increase in size and based on the time of day (Topping and Szedlmayer 2011).

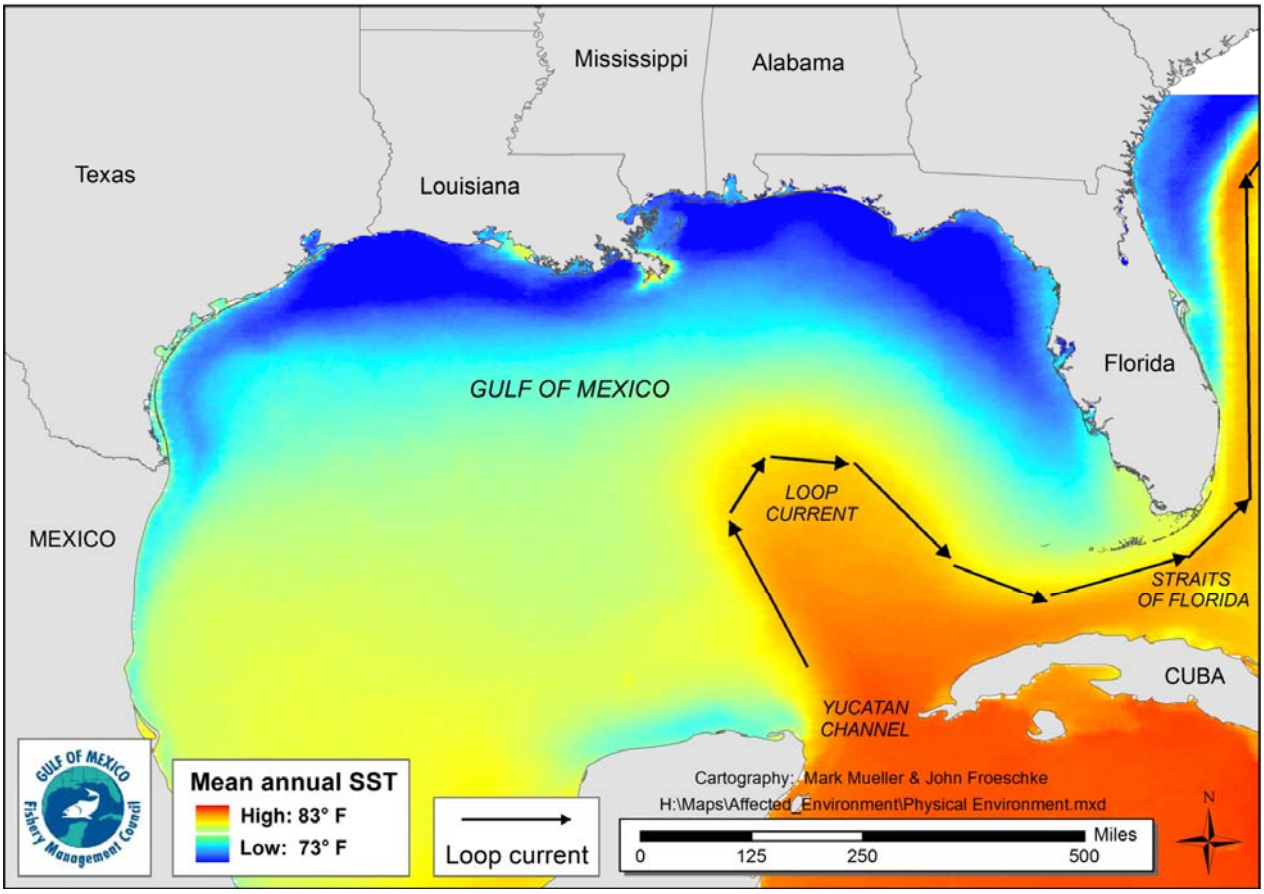

Figure 3.1.1. Physical environment of the Gulf including major feature names and mean annual sea surface temperature as derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (http://accession.nodc.noaa.gov/0072888)

Habitat Areas of Particular Concern (HAPC)

Generic Amendment 3 (GMFMC 2005) addressed EFH, HAPC, and adverse effects of fishing in the following fishery management plans of the Gulf Reef Fish Resources, Red Drum, and Coastal Migratory Pelagics is hereby incorporated by reference.

Environmental Sites of Special Interest Relevant to Reef Fish, Red Drum, Coastal Migratory Pelagics, Spiny Lobster, Red Drum, and Coral and Coral Reefs (Figure 3.1.2)

Detailed information pertaining to the closures and preserves is provided in the February 2010 Regulatory Amendment (GMFMC 2010) and is incorporated here by reference.

Longline/Buoy Gear Area Closure – Permanent closure to use of these gears for reef fish harvest inshore of 20 fathoms (36.6 meters) off the Florida shelf and inshore of 50 fathoms (91.4 meters) for the remainder of the Gulf, and encompasses 72,300 square nautical miles (nm^2) or 133,344 km^2 (GMFMC 1989). Bottom longline gear is prohibited inshore of 35 fathoms (54.3 meters)

during the months of June through August in the eastern Gulf (GMFMC 2009), but is not depicted in Figure 3.2.1.

Madison-Swanson and Steamboat Lumps Marine Reserves - No-take marine reserves (total area is 219 nm^2 or 405 km^2) sited based on gag spawning aggregation areas where all fishing is prohibited except surface trolling from May through October (GMFMC 1999; 2003). Madison-Swanson and Steamboat Lumps marine reserves which are closed to bottom fishing, the Edges Marine Reserve where all fishing is prohibited from January through April,

The Edges Marine Reserve – All fishing is prohibited in this area (390 nm^2 or 1,338 km^2) from January through April and possession of any fish species is prohibited, except for such possession aboard a vessel in transit with fishing gear stowed as specified. The provisions of this do not apply to highly migratory species (GMFMC 2008).

Tortugas North and South Marine Reserves – No-take marine reserves (185 nm^2) cooperatively implemented by the state of Florida, National Ocean Service, the Gulf of Mexico Fishery Management Council (Council), and the National Park Service in Generic Amendment 2 Establishing the Tortugas Marine Reserves (GMFMC 2001).

Reef and bank areas designated as HAPCs in the northwestern Gulf include – East and West Flower Garden Banks, Stetson Bank, Sonnier Bank, MacNeil Bank, 29 Fathom, Rankin Bright Bank, Geyer Bank, McGrail Bank, Bouma Bank, Rezak Sidner Bank, Alderice Bank, and Jakkula Bank – pristine coral areas protected by preventing the use of some fishing gear that interacts with the bottom and prohibited use of anchors (totaling 263.2 nm^2 or 487.4 km^2). Subsequently, three of these areas were established as marine sanctuaries (i.e., East and West Flower Garden Banks and Stetson Bank). Bottom anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots on coral reefs are prohibited in the East and West Flower Garden Banks, McGrail Bank, and on significant coral resources on Stetson Bank (GMFMC 2005).

Florida Middle Grounds HAPC - Pristine soft coral area (348 nm^2 or 644.5 km^2) that is protected by prohibiting the following gear types: bottom longlines, trawls, dredges, pots and traps (GMFMC and SAFMC 1982).

Pulley Ridge HAPC - A portion of the HAPC (2,300 nm^2 or 4,259 km^2) where deepwater hermatypic coral reefs are found is closed to anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots (GMFMC 2005).

Alabama Special Management Zone – For vessels operating as a charter vessel or headboat, a vessel that does not have a commercial permit for Gulf reef fish, or a vessel with such a permit fishing for Gulf reef fish, fishing is limited to hook-and-line gear with no more than three hooks. Nonconforming gear is restricted to recreational bag limits, or for reef fish without a bag limit, to 5% by weight of all fish aboard.

In addition to the above, there is one site in the Gulf listed in the National Register of Historic Places. This is the wreck of the *U.S.S. Hatteras*, located in federal waters off Texas. Historical research indicates that over 2,000 ships have sunk on the Federal Outer Continental Shelf between 1625 and 1951; thousands more have sunk closer to shore in state waters during the same period. Only a handful of these have been scientifically excavated by archaeologists for the benefit of generations to come. Further information can be found at: http://www.boem.gov/Environmental-Stewardship/Archaeology/Shipwrecks.aspx

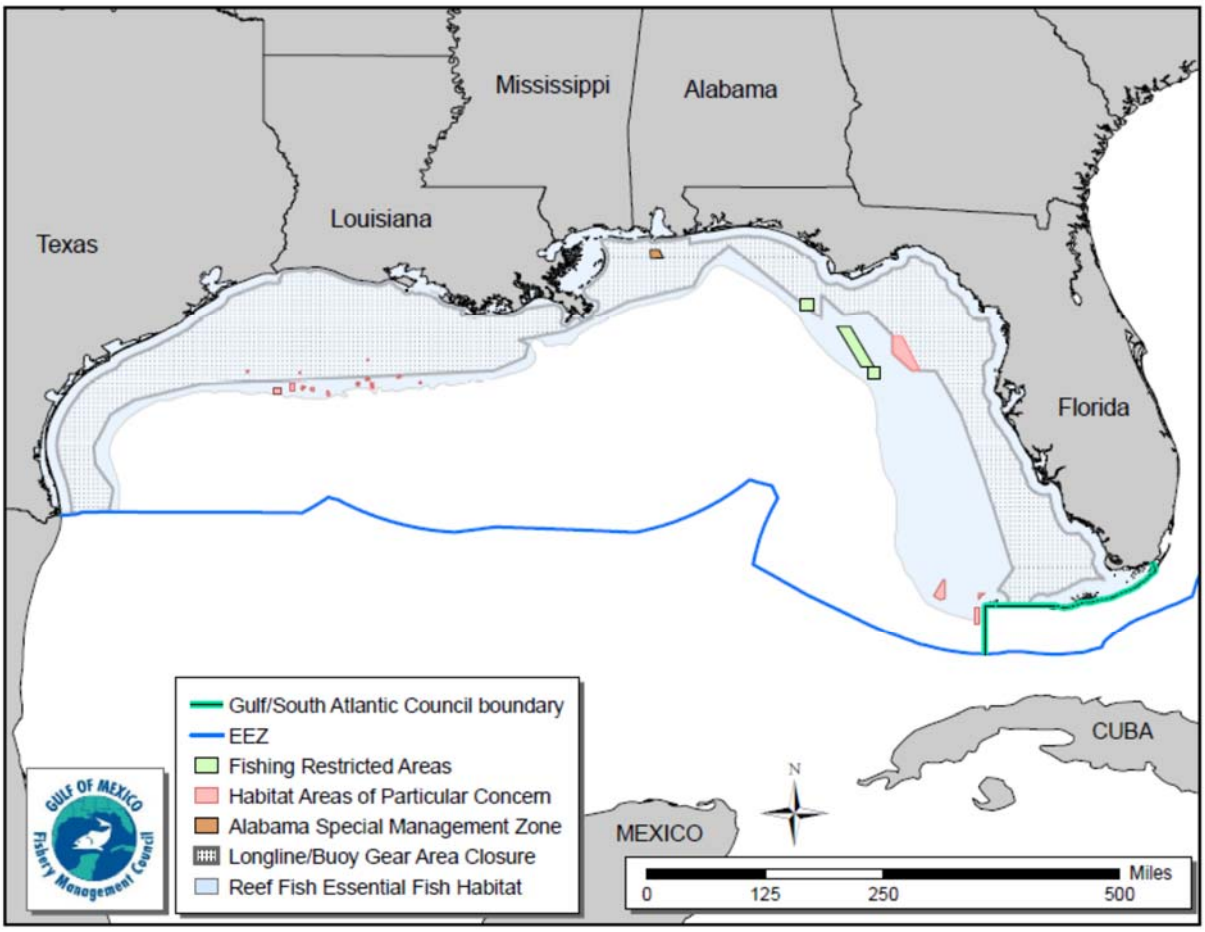

Figure 3.1.2. Map of most fishery management closed areas in the Gulf.

Deepwater Horizon MC252 Oil Spill

The Deepwater Horizon MC252 oil spill in 2010 affected at least one-third of the Gulf area from western Louisiana east to the Florida Panhandle and south to the Campeche Bank in Mexico. The impacts of the Deepwater Horizon MC252 oil spill on the physical environment are expected to be significant and may be long-term. Oil was dispersed on the surface, and because of the heavy use of dispersants (both at the surface and at the wellhead), oil was also documented as being suspended within the water column, some even deeper than the location of the broken well head. Floating and suspended oil washed onto shore in several areas of the Gulf as were non-floating tar balls. Whereas suspended and floating oil degrades over time, tar balls are persistent in the environment and can be transported hundreds of miles.

Changes have occurred in the amount and distribution of fishing effort in the Gulf in response to the oil spill. This has made the analysis of the number of days needed for the recreational sector to fill its quota more complex and uncertain, and will make the requirement to allow the recreational sector to harvest its quota of red snapper while not exceeding the quota particularly challenging. Nevertheless, substantial portions of the red snapper population are found in the northwestern and western Gulf (western Louisiana and Texas) and an increasing population of red snapper is developing off the west Florida continental shelf. Thus, spawning by this segment of the stock may not be impacted, which would mitigate the overall impact of a failed spawn by that portion of the stock located in oil-affected areas. An increase in lesions were found in red

snapper in the area affected by the oil, but Murowski et al. (2014) found that the incidence of lesions had declined between 2011 and 2012. The 2013 stock assessment for red snapper (SEDAR 31, 2013) showed a steep decline in the 2010 recruitment; however, the recruitment increased in 2011 and 2012.

As a result of the Deepwater Horizon MC252 spill, a consultation pursuant to ESA Section 7(a)(2) was reinitiated. As discussed in Chapter 4.2, on September 30, 2011, the Protected Resources Division released a biological opinion, which after analyzing best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC252 oil release event in the northern Gulf), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011a). For additional information on the Deepwater Horizon MC252 oil spill and associated closures, see: http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm.

3.2 Description of the Biological Environment

The biological environment of the Gulf, including the species addressed in this amendment, is described in detail in the final EISs for Generic EFH Amendment, the Generic ACL/AM Amendment, and Reef Fish Amendment 40 (refer to GMFMC 2004a; GMFMC 2011a; GMFMC 2014a) and is incorporated here by reference and further summarized below.

Red Snapper Life History and Biology

Red snapper demonstrate the typical reef fish life history pattern as described in Appendix B of Amendment 28 (GMFMC 2015). Eggs and larvae are pelagic while juveniles are found associated with bottom features or over barren bottom (See Section 3.1). Spawning occurs over firm sand bottom with little relief away from reefs during the summer and fall. Most females are mature by age two and almost all are mature by age five (Woods et al. 2003). Red snapper have been aged up to 57 years (Wilson and Nieland 2001). In the late 1990s, most caught by the directed fishery were 2- to 4-years old (Wilson and Nieland 2001), but a recently completed stock assessment suggests that the age and size of red snapper in the directed fishery has increased in recent years (SEDAR 31 2013). A more complete description of red snapper life history can be found in the EIS for the Generic EFH Amendment (GMFMC 2004a) and SEDAR 31 (2013).

Status of the Red Snapper Stock

A red snapper update assessment was conducted by the Southeast Fishery Science Center (SEFSC) in 2014 and presented to the SSC in January 2015 SSC[2]. This update assessment was based on the SEDAR 31 benchmark in 2012 and 2013 (SEDAR 31 2013). The results of the 2014 update assessment indicate that overfishing is not occurring and the stock is continuing to rebuild, but it remains overfished. Based on the assessment, the SSC recommended overfishing limits and acceptable biological catch for the years 2015-2017. Chapter 3.3 of Amendment 28 (GMFMC 2015) provides a detailed description of the red snapper stock status, and is hereby incorporated by reference.

Status of Reef Fish Stocks

The Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico (Reef Fish FMP) currently encompasses 31 species (Table 3.2.2). Eleven other species were removed from the Reef Fish FMP in 2012 by the Council in their Generic ACL/AM Amendment. Stock assessments and stock assessment reviews may be found on the Council (www.gulfcouncil.org) and SEDAR (http://www.sefsc.noaa.gov/sedar) websites and have been conducted for 13 species:

- red snapper (SEDAR 7 2005; SEDAR 7 Update 2009; SEDAR 31 2013; Update 2014)
- vermilion snapper (Porch and Cass-Calay 2001; SEDAR 9 2006a; SEDAR 9 Update 2011b; SEDAR Update 2014)
- yellowtail snapper (Muller et al. 2003; SEDAR 3 2003; SEDAR 27A 2012)
- mutton snapper (SEDAR 15A 2008;SEDAR 15A Update 2014)
- gray triggerfish (Valle et al. 2001; SEDAR 9 2006b; SEDAR 9 Update 2011c and 2014)
- greater amberjack (Turner et al. 2000; SEDAR 9 2006c; SEDAR 9 Update 2010, SEDAR 33 2014)
- hogfish (Ault et al. 2003; SEDAR 6 2004a, SEDAR 37 2014)

- red grouper (NMFS 2002; SEDAR 12 2007; SEDAR 12 Update 2009)
- gag grouper (Turner et al. 2001; SEDAR 10 2006; SEDAR 10 Update 2009, SEDAR 33 2014)
- black grouper (SEDAR 19 2010)
- yellowedge grouper (Cass-Calay and Bahnick 2002; SEDAR 22 2011a)
- tilefish (golden) (SEDAR 22 2011b)
- goliath grouper (Porch et al. 2003; SEDAR 6 2004b; SEDAR 23 2011)

Utilizing the most current stock assessment information, the Gulf of Mexico fourth quarter report of the 2014 Status of U.S. Fisheries (http://www.nmfs.noaa.gov/sfa/statusoffisheries/2011/fourth/Q4%202011%20FSSI%20and%20nonFSSI%20StockStatus.pdf) classifies the 13 species as follows:

Overfished and Experiencing Overfishing:
- greater amberjack
- gray triggerfish

Overfished and Not Experiencing Overfishing
- red snapper

Not Overfished or Experiencing Overfishing:
- yellowtail snapper
- hogfish *
- yellowedge grouper
- vermilion snapper
- black grouper
- red grouper
- gag grouper
- mutton snapper

Unknown:
- goliath grouper – benchmarks do not reflect appropriate stock dynamics
- snowy grouper
- speckled hind
- warsaw grouper
- yellowfin grouper
- scamp
- yellowmouth grouper
- cubera snapper
- gray snapper
- lane snapper
- queen snapper
- blackfin snapper
- silk snapper
- wenchman
- jacks complex (lesser amberjack, banded rudderfish)

- tilefish (golden) – insufficient data

* Hogfish genetic clusters are identified as (1) Western Florida (not including hogfish west of the Florida panhandle), (2) Florida Keys/Eastern Florida, and (3) Georgia through North Carolina. The Western Florida and Florida Keys/Eastern Florida genetic populations converge south of Naples, Florida. Therefore, a portion of the Florida Keys/Eastern Florida population occurs within the Gulf of Mexico Council's area of jurisdiction, but the majority of the population occurs within the South Atlantic Council's area of jurisdiction. These genetic populations have not been previously specified as distinct management stocks under South Atlantic and Gulf of Mexico Council FMPs. Recent findings indicate the Florida Keys/Eastern Florida is overfished and undergoing overfishing.

Table 3.2.2. Species of the Reef Fish FMP grouped by family.
**Note: Goliath grouper is a protected grouper.

Common Name	Scientific Name	Stock Status
Family Balistidae – Triggerfishes		
gray triggerfish	*Balistes capriscus*	Overfished, overfishing
Family Carangidae – Jacks		
greater amberjack	*Seriola dumerili*	Overfished, overfishing
lesser amberjack	*Seriola fasciata*	Unknown
almaco jack	*Seriola rivoliana*	Unknown
banded rudderfish	*Seriola zonata*	Unknown
Family Labridae – Wrasses		
Hogfish	*Lachnolaimus maximus*	Not overfished, no overfishing
Family Malacanthidae – Tilefishes		
Tilefish (golden)	*Lopholatilus chamaeleonticeps*	Unknown
blueline tilefish	*Caulolatilus microps*	Unknown
goldface tilefish	*Caulolatilus chrysops*	Unknown
Family Serranidae – Groupers		
Gag	*Mycteroperca microlepis*	Not overfished, no overfishing
red grouper	*Epinephelus morio*	Not overfished, no overfishing
Scamp	*Mycteroperca phenax*	Unknown
black grouper	*Mycteroperca bonaci*	Not overfished, no overfishing
yellowedge grouper	*Epinephelus flavolimbatus*	Not overfished, no overfishing
snowy grouper	*Epinephelus niveatus*	Unknown
speckled hind	*Epinephelus drummondhayi*	Unknown
yellowmouth grouper	*Mycteroperca interstitialis*	Unknown
yellowfin grouper	*Mycteroperca venenosa*	Unknown
warsaw grouper	*Epinephelus nigritus*	Unknown
****goliath grouper**	*Epinephelus itajara*	Unknown, not overfishing
Family Lutjanidae – Snappers		
queen snapper	*Etelis oculatus*	Unknown
mutton snapper	*Lutjanus analis*	Not overfished, no overfishing
blackfin snapper	*Lutjanus buccanella*	Unknown
red snapper	*Lutjanus campechanus*	Overfished, no overfishing
cubera snapper	*Lutjanus cyanopterus*	Unknown
gray snapper	*Lutjanus griseus*	Unknown
lane snapper	*Lutjanus synagris*	Unknown
silk snapper	*Lutjanus vivanus*	Unknown
yellowtail snapper	*Ocyurus chrysurus*	Not overfished, no overfishing
vermilion snapper	*Rhomboplites aurorubens*	Not overfished, no overfishing
Wenchman	*Pristipomoides aquilonaris*	Unknown

Notes: * In 2013 the genus for yellowedge grouper, snowy grouper, and warsaw grouper was changed by the American Fisheries Society from *Epinephelus* to *Hyporthodus* (American Fisheries Society 2013).

**Atlantic goliath grouper is a protected grouper and benchmarks do not reflect appropriate stock dynamics. In 2013 the common name was changed from goliath grouper to Atlantic goliath grouper by the American Fisheries Society to differentiate from the Pacific goliath grouper, a newly named species (American Fisheries Society 2013).

Protected Species

There are 38 species protected by federal law that may occur in the Gulf. Thirty-seven of these are under the jurisdiction of NMFS, while the West Indian manatee (*Trichechus manatus*) is managed by the U.S. Fish and Wildlife Service. Of the species under NMFS's jurisdiction, 28 are marine mammals that are protected under the Marine Mammal Protection Act (MMPA). The MMPA requires that each commercial fishery be classified by the number of marine mammals they seriously injure or kill. NMFS's List of Fisheries (LOF) classifies U.S. commercial fisheries into three categories based on the number of incidental mortality or serious injury they cause to marine mammals. More information about the LOF and the classification process can be found at: http://www.nmfs.noaa.gov/pr/interactions/lof/. Six of these marine mammal species are also listed as endangered under the Endangered Species Act (ESA) (i.e., sperm, sei, fin, blue, humpback, and North Atlantic right whales). In addition to those six marine mammals, five sea turtle species (Kemp's ridley, loggerhead, green, leatherback, and hawksbill), two fish species (Gulf sturgeon and smalltooth sawfish), and two coral species (elkhorn coral and staghorn coral) are also protected under the ESA. Designated critical habitat for *Acropora* corals, smalltooth sawfish, Gulf sturgeon, and the Northwest Atlantic Ocean distinct population segment of loggerhead sea turtles also occur within nearshore waters of the Gulf. NMFS has conducted specific analyses ("Section 7 consultations") to evaluate the potential adverse effects from the Gulf reef fish fishery on species protected under the ESA (http://sero.nmfs.noaa.gov/protected_resources/section_7/index.html). Those consultations indicate that of the species listed above, sea turtles and smalltooth sawfish are the most likely to interact with the reef fish fishery. Species potentially affected by the fishery are discussed below.

Marine Mammals

The gear used by the Gulf reef fish fishery is classified in the Marine Mammal Protection Act 2015 List of Fisheries as a Category III fishery (79 FR 77919). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to 1% of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. Dolphins are the only species documented as interacting with these fisheries. Bottlenose dolphins prey upon on the bait, catch, and/or released discards of fish from the reef fish fishery. They are also a common predator around reef fish vessels, feeding on the discards. Marine Mammal Stock Assessment Reports and additional information are available on the NMFS Office of Protected Species website: http://www.nmfs.noaa.gov/pr/sspecies/.

Turtles

With regard to sea turtles, the Protected Resources Division released a biological opinion on September 30, 2011, which concluded that the continued operation of the Gulf reef fish fishery is

not likely to jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback) or smalltooth sawfish (NMFS 2011a). An incidental take statement was issued specifying the amount and extent of anticipated take, along with reasonable and prudent measures and associated terms and conditions deemed necessary and appropriate to minimize the impact of these takes. The Council addressed measures to reduce take in the reef fish fishery's longline component in Amendment 31 (GMFMC 2009). Other listed species and designated critical habitat in the Gulf were determined not likely to be adversely affected. However, on July 10, 2014, NMFS published a final rule designating 38 occupied marine areas within the Atlantic Ocean and Gulf as critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle distinct population segment (79 FR 39856). These areas contain one or a combination of nearshore reproductive habitat, winter area, breeding areas, and migratory corridors, or contain sargassum habitat. In the Gulf, designated critical habitat contains either nearshore reproductive habitat or sargassum habitat. Relative to this final rule, NMFS concluded in a September 16, 2014, memo that activities associated with the Gulf Reef Fish FMP will not adversely affect any of the aforementioned critical habitat units. The fishery managed by the FMP will either have no effect on the critical habitat due to location or methods, or will have discountable or insignificant effects that will not adversely affect the habitat's ability to perform its function.

Green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles are all highly migratory and travel widely throughout the Gulf. The following sections are a brief overview of the general life history characteristics of the sea turtles found in the Gulf region. Several volumes exist that cover the biology and ecology of these species more thoroughly (i.e., Lutz and Musick (eds.) 1997; Lutz et al. (eds.) 2003).

Green sea turtle hatchlings are thought to occupy pelagic areas of the open ocean and are often associated with *Sargassum* rafts (Carr 1987; Walker 1994). Pelagic stage green sea turtles are thought to be carnivorous. Stomach samples of these animals found ctenophores and pelagic snails (Frick 1976; Hughes 1974). At approximately 20 to 25 cm carapace length, juveniles migrate from pelagic habitats to benthic foraging areas (Bjorndal 1997). As juveniles move into benthic foraging areas a diet shift towards herbivory occurs. They consume primarily seagrasses and algae, but are also know to consume jellyfish, salps, and sponges (Bjorndal 1980, 1997; Paredes 1969; Mortimer 1981, 1982). The diving abilities of all sea turtles species vary by their life stages. The maximum diving range of green sea turtles is estimated at 110 m (360 ft) (Frick 1976), but they are most frequently making dives of less than 20 m (65 ft) (Walker 1994). The time of these dives also varies by life stage. The maximum dive length is estimated at 66 minutes with most dives lasting from 9 to 23 minutes (Walker 1994).

The **hawksbill's** pelagic stage lasts from the time they leave the nesting beach as hatchlings until they are approximately 22-25 cm in straight carapace length (Meylan 1988; Meylan and Donnelly 1999). The pelagic stage is followed by residency in developmental habitats (foraging areas where juveniles reside and grow) in coastal waters. Little is known about the diet of pelagic stage hawksbills. Adult foraging typically occurs over coral reefs, although other hard-bottom communities and mangrove-fringed areas are occupied occasionally. Hawksbills show fidelity to their foraging areas over several years (van Dam and Diéz 1998). The hawksbill's diet is highly specialized and consists primarily of sponges (Meylan 1988). Gravid females have

been noted ingesting coralline substrate (Meylan 1984) and calcareous algae (Anderes Alvarez and Uchida 1994), which are believed to be possible sources of calcium to aid in eggshell production. The maximum diving depths of these animals are not known, but the maximum length of dives is estimated at 73.5 minutes. More routinely, dives last about 56 minutes (Hughes 1974).

Kemp's ridley hatchlings are also pelagic during the early stages of life and feed in surface waters (Carr 1987; Ogren 1989). Once the juveniles reach approximately 20 cm carapace length they move to relatively shallow (less than 50m) benthic foraging habitat over unconsolidated substrates (Márquez-M. 1994). They have also been observed transiting long distances between foraging habitats (Ogren 1989). Kemp's ridleys feeding in these nearshore areas primarily prey on crabs, though they are also known to ingest mollusks, fish, marine vegetation, and shrimp (Shaver 1991). The fish and shrimp Kemp's ridleys ingest are not thought to be a primary prey item but instead may be scavenged opportunistically from bycatch discards or from discarded bait (Shaver 1991). Given their predilection for shallower water, Kemp's ridleys most routinely make dives of 50 m or less (Soma 1985; Byles 1988). Their maximum diving range is unknown. Depending on the life stage a Kemp's ridleys may be able to stay submerged anywhere from 167 minutes to 300 minutes, though dives of 12.7 minutes to 16.7 minutes are much more common (Soma 1985; Mendonca and Pritchard 1986; Byles 1988). Kemp's ridleys may also spend as much as 96% of their time underwater (Soma 1985; Byles 1988).

Leatherbacks are the most pelagic of all ESA-listed sea turtles and spend most of their time in the open ocean. Although, they will enter coastal waters and are seen over the continental shelf on a seasonal basis to feed in areas where jellyfish are concentrated. Leatherbacks feed primarily on cnidarians (medusae, siphonophores) and tunicates. Unlike other sea turtles, leatherbacks' diets do not shift during their life cycles. Because leatherbacks' ability to capture and eat jellyfish is not constrained by size or age, they continue to feed on these species regardless of life stage (Bjorndal 1997). Leatherbacks are the deepest diving of all sea turtles. It is estimated that these species can dive in excess of 1000 m (Eckert et al. 1989), but more frequently dive to depths of 50 m to 84 m (Eckert et al. 1986). Dive times range from a maximum of 37 minutes to more routine dives of 4 to 14.5 minutes (Standora et al. 1984; Eckert et al. 1986, 1989; Keinath and Musick 1993). Leatherbacks may spend 74% to 91% of their time submerged (Standora et al. 1984).

Loggerhead hatchlings forage in the open ocean and are often associated with *Sargassum* rafts (Hughes 1974; Carr 1987; Walker 1994; Bolten and Balazs 1995). The pelagic stage of these sea turtles are known to eat a wide range of things including salps, jellyfish, amphipods, crabs, syngnathid fish, squid, and pelagic snails (Brongersma 1972). Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length they begin to live in coastal inshore and nearshore waters of the continental shelf throughout the U.S. Atlantic (Witzell 2002). Here they forage over hard- and soft-bottom habitats (Carr 1986). Benthic foraging loggerheads eat a variety of invertebrates with crabs and mollusks being an important prey source (Burke et al. 1993). Estimates of the maximum diving depths of loggerheads range from 211 m to 233 m (692-764ft) (Thayer et al. 1984; Limpus and Nichols 1988). The lengths of loggerhead dives are frequently between 17 and 30 minutes (Thayer et al. 1984; Limpus and

Nichols 1988; Limpus and Nichols 1994; Lanyon et al. 1989) and they may spend anywhere from 80 to 94% of their time submerged (Limpus and Nichols 1994; Lanyon et al. 1989). All five species of sea turtles are adversely affected by the Gulf reef fish fishery. Incidental captures are relatively infrequent, but occur in all commercial and recreational hook-and-line and longline components of the reef fish fishery. Captured sea turtles can be released alive or can be found dead upon retrieval of the gear as a result of forced submergence. Sea turtles released alive may later succumb to injuries sustained at the time of capture or from exacerbated trauma from fishing hooks or lines that were ingested, entangled, or otherwise still attached when they were released. Sea turtle release gear and handling protocols are required in the commercial and for-hire reef fish fisheries to minimize post-release mortality.

Fish

Historically the **smalltooth sawfish** in the U.S. ranged from New York to the Mexico border. Their current range is poorly understood but believed to have contracted from these historical areas. In the South Atlantic region, they are most commonly found in Florida, primarily off the Florida Keys (Simpfendorfer and Wiley 2004). Only two smalltooth sawfish have been recorded north of Florida since 1963 (the first was captured off North Carolina in 1963 and the other off Georgia in 2002 (National Smalltooth Sawfish Database, Florida Museum of Natural History)). Historical accounts and recent encounter data suggest that immature individuals are most common in shallow coastal waters less than 25 meters (Bigelow and Schroeder 1953; Adams and Wilson 1995), while mature animals occur in waters in excess of 100 m (Simpfendorfer, pers. comm.). Smalltooth sawfish feed primarily on fish. Mullet, jacks, and ladyfish are believed to be their primary food resources (Simpfendorfer 2001). Smalltooth sawfish also prey on crustaceans (mostly shrimp and crabs) by disturbing bottom sediment with their saw (Norman and Fraser 1938; Bigelow and Schroeder 1953). Smalltooth sawfish are also affected by the Gulf reef fish fishery, but to a much lesser extent. Smalltooth sawfish primarily occur in the Gulf off peninsular Florida. Incidental captures in the commercial and recreational hook-and-line components of the reef fish fishery are rare events, with only eight smalltooth sawfish estimated to be incidentally caught annually, and none are expected to result in mortality (NMFS 2005). Fishermen in this fishery are required to follow smalltooth sawfish safe handling guidelines. The long, toothed rostrum of the smalltooth sawfish causes this species to be particularly vulnerable to entanglement in fishing gear.

Corals

On September 10, 2014, the NMFS published a final rule (79 FR 53852) listing 20 new coral species under the Endangered Species Act. Five of those new species occur in the Caribbean (*Mycetophyllia ferox, Dendrogyra cylindrus, Orbicella annularis, O. faveolata, and O. franksi*); all were listed as threatened. Relative to this final rule, SERO's Sustainable Fisheries Division determined in a September 16, 2014, memo that the reef fish fishery could potentially affect the newly listed species via gear interactions; however, believed those impacts are discountable and not likely to adversely affect the corals. This is because the harvest of all corals (including all federally-protected species) is prohibited in the federal waters under the Council's jurisdiction; therefore, no effects are expected to these species as a result of the continued authorization of the fishery as established in the FMP. The Sustainable Fisheries Division has requested concurrence on that determination from the Protected Species Division. The two previously listed *Acropora* coral species (*Acropora palmata* and *A. cervicornis*) remain protected as threatened. In a memo

dated February 13, 2013, NMFS determined the reef fish fishery was not likely to adversely affect *Acropora* because of where the fishery operates, the types of gear used in the fishery, and that other regulations protect *Acropora* where they are most likely to occur. None of the new information regarding population level concerns would affect those determinations.

Deepwater Horizon MC252 Oil Spill

A discussion of the Deepwater Horizon MC252 event is located in Chapter 3.1 of this document and in Reef Fish Amendment 28.

3.3 Description of the Economic Environment

3.3.1 Commercial Sector

3.3.1.1 Vessel Activity

A description of the red snapper individual fishing quota (RS-IFQ) program is contained in the "Additional Information" section on the Catch Shares homepage available at: https://portal.southeast.fisheries.noaa.gov/cs. This description is incorporated herein by reference and is summarized below. Tables 3.3.1.1.1 and 3.3.1.1.2 contain summary vessel and trip counts, landings, and revenue information from vessels landing at least one pound of red snapper from 2010 through 2014. Data for 2014 is preliminary and data from years prior to the implementation of the RS-IFQ program are not representative of current conditions.

The tables contain vessel counts from the NMFS Southeast Fisheries Science Center (SEFSC) logbook (logbook) data (vessel count, trips, and landings) and the NMFS Southeast Regional Office (SERO) Limited Access Privilege Program (LAPP) data (vessel count). Dockside values were generated using landings information from logbook data and price information from the NMFS SEFSC Accumulated Landings System (ALS) data. The logbook and LAPP data programs serve different purposes and use different data collection methods. Consequently, comparative analysis of data from these programs may produce different results, as evidenced by the vessel counts provided in Table 3.3.1.1.1. However, this assessment utilizes logbook data because the logbook program collects data on all species harvested on trips on which red snapper are harvested, as well as harvests by these vessels on trips without red snapper.

On average, 375 vessels per year landed red snapper (Table 3.3.1.1.1). These vessels, combined, averaged 2,962 trips per year on which red snapper was landed and 1,592 trips without red snapper (Table 3.3.1.1.1). The average annual total dockside revenue (2014 dollars) was approximately $13.40 million from red snapper, approximately $14.22 million from other species co-harvested with red snapper (on the same trip), and approximately $10.26 million from other species harvested on trips on which no red snapper were harvested (Table 3.3.1.1.2). Total average annual revenues were approximately $37.87 million, or approximately $102,000 per vessel (Table 3.3.1.1.2).

Table 3.3.1.1.1. Summary of vessel counts, trips, and logbook landings (pounds gutted weight (lbs gw)) or vessels landing at least one pound of red snapper, 2010-2014.

Year	Number of Vessels, Logbook Data	Number of Vessels, LAPPs Data	Number of Trips that Caught Red Snapper, Logbook Data	Red Snapper Landings (lbs gw)	"Other Species" Landings Jointly Caught with Red Snapper (lbs gw)	Number of Trips that Only Landed "Other Species"	"Other Species" Landings on Trips without Red Snapper (lbs gw)
2010	375	384	2,970	2,939,254	4,040,460	1,717	3,106,308
2011	368	362	3,389	3,073,697	5,539,520	1,959	4,422,791
2012	365	371	3,432	3,469,118	5,525,735	2,026	4,818,703
2013	359	368	3,389	4,424,324	5,257,821	1,699	3,632,756
2014	410	401	1,628	2,735,798	2,217,577	560	1,008,224
Average	375	377	2,962	3,328,438	4,516,223	1,592	3,397,756

2014 data is preliminary; initial estimate using LAPPs data indicates 2014 red snapper landings of 5,016,056 lbs gw.
Source: NMFS SEFSC Logbook and NMFS SERO LAPPs data.

Table 3.3.1.1.2. Summary of vessel counts and revenue (thousand 2014 dollars) for vessels landing at least one pound of red snapper, 2010-2014.

Year	Number of Vessels, Logbook Data	Dockside Revenue from Red Snapper	Dockside Revenue from "Other Species" Jointly Caught with Red Snapper	Dockside Revenue from "Other Species" Caught on Trips without Red Snapper	Total Dockside Revenue	Average Total Dockside Revenue per Vessel
2010	375	$11,054,115	$12,045,338	$8,599,488	$31,698,941	$84,530
2011	368	$11,529,750	$16,697,540	$12,707,463	$40,934,753	$111,236
2012	365	$13,784,908	$17,140,315	$14,442,750	$45,367,973	$124,296
2013	359	$19,261,015	$17,538,051	$12,295,498	$49,094,564	$136,754
2014	410	$11,356,047	$7,680,926	$3,239,250	$22,276,223	$54,332
Average	375	$13,397,167	$14,220,434	$10,256,890	$37,874,491	$102,230

2014 data is preliminary. Source: NMFS SEFSC Logbook and ALS data.

Share, Allocation, and Ex-vessel Prices

Price information is an important component for evaluating the performance of a catch share program. Economic theory states that as fishermen no longer have to out-compete other fishermen for a share of the catch, the profits will increase as fishermen adjust the scale and scope of their operations to take advantage of market conditions. This results in increased market stability and value for shares and allocations, as more efficient fishermen are willing to pay higher prices to purchase additional shares and/or allocation from less efficient operators. Theoretically, allocation prices should reflect the expected annual net profit from harvesting one unit of quota, whereas share prices should reflect the present value of the flow of expected net returns from harvesting one unit of quota. Dockside or ex-vessel prices are the price the vessel receives at the first sale of harvest. In 2013, the median share price per pound of red snapper was $40.00 (average price $36.24), the median allocation price per pound was $3.00 (average price $2.98), and the median ex-vessel price per pound was $4.75 (average price $4.46). Similar final data for 2014 are not currently available and data from previous years can be found in NMFS (2014).

3.3.1.2 Commercial Sector Business Activity

Estimates of the business activity (economic impacts) in the U.S. associated with the Gulf red snapper commercial harvests were derived using the model developed for and applied in NMFS (2011b) and are provided in Table 3.3.1.2.1. Business activity for the commercial sector is characterized in the form of full-time equivalent (FTE) jobs, income impacts (wages, salaries, and self-employed income), and output (sales) impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting. The estimates of economic activity include the direct effects (effects in the sector where an expenditure is actually made), indirect effects (effects in sectors providing goods and services to directly affected sectors), and induced effects (effects induced by the personal consumption expenditures of employees in the direct and indirectly affected sectors).

Table 3.3.1.2.1. Average annual business activity associated with the harvests of vessels that harvest red snapper, 2010-2014.

Species	Average Annual Dockside Revenue (thousands)[1]	Total Jobs	Harvester Jobs	Output (Sales) Impacts (thousands)[1]	Income Impacts (thousands)[1]
Red snapper	$13,397	2,367	309	$176,393	$75,177
All species[2]	$37,874	6,694	873	$498,668	$212,528

[1]2014 dollars.
[2]Includes dockside revenues and economic activity associated with the average annual harvests of all species, including red snapper, harvested by vessels that harvested red snapper.

In addition to red snapper harvests, as discussed above, vessels that harvested red snapper also harvested other species on trips where red snapper were harvested. These vessels also took trips during the year where only species other than red snapper were caught. All revenues from all species on all these trips contributed towards making these vessels economically viable and contribute to the economic activity associated with these vessels. The average annual total ex-vessel revenues from all species (including red snapper) harvested during this period (2010-2014) by vessels that harvested red snapper was approximately $37.87 million (2014 dollars). In terms of business activity, these revenues are estimated to support 6,694 FTE jobs (873 in the harvesting sector) and are associated with approximately $498.67 million in output (sales) impacts and approximately $212.52 million in income impacts.

3.3.1.3 Dealers

Commercial vessels landing red snapper can only sell their catch to federally permitted fish dealers. On July 21, 2015, 202 dealers eligible to receive red snapper were listed on the Catch Shares homepage (https://portal.southeast.fisheries.noaa.gov/cs). Because there are no income or sales requirements to acquire a federal dealer permit or IFQ endorsement, the total number of dealers can vary over the course of the year and from year to year. In addition to red snapper, grouper and tilefish are Gulf LAPP species and not all dealers authorized to receive Gulf LAPP species purchase red snapper. In 2013, only 81 dealers were recorded in the LAPP data program

receiving red snapper, and this number has ranged from 66-82 over the period 2007-2013. However, although all dealers that purchase IFQ species should have their transactions recorded in the LAPPs data system, not all apparently do so, as evidenced by higher dealer counts being recorded with red snapper purchases in the ALS, which assembles data from state trip ticket data programs. For example, in 2012, 92 dealers reported red snapper purchases in the Gulf.

Because the ALS includes data on the purchase of all species by dealers, it is the best source of information on the purchase activity by these entities. In 2012, among the 92 dealers that reported red snapper purchases, 73 of these dealers were in Florida, six in Texas, six in Louisiana, four in Alabama, and three in Mississippi. Total red snapper purchased by these dealers in 2012 had an ex-vessel value of approximately $13.89 million (2014 dollars), or approximately 12.84% of the total revenues, approximately $108.20 million (2014 dollars), from all marine resource purchases by these dealers. Dependency on red snapper sales varies by dealer, with the percentage of red snapper purchases (value, not pounds) to total purchases varying from less than 1% to 100%. Red snapper purchases in 2012 comprised 10% or more of total purchases for 40 of these dealers, 50% or more for 11 dealers, and 5% or less for 38 dealers. Average red snapper dependency (measured as the percentage of red snapper ex-vessel value relative to the total value of all seafood purchases) was highest for Mississippi and Texas dealers, approximately 34% and 28%, respectively, followed by Alabama (approximately 21%), Florida (approximately 10%), and Louisiana (approximately 8%).

3.3.1.4 Imports

Information on the imports of all snapper and grouper species, either fresh or frozen, are available at: http://www.st.nmfs.noaa.gov/st1/trade/cumulative_data/TradeDataProduct.html. Information on the imports of individual snapper or grouper species is not available. In 2012, imports of all snapper and grouper species (fresh and frozen) were approximately 44.51 million pounds valued at approximately $132.19 million (2014 dollars). These amounts are contrasted with the domestic harvest of all snapper and grouper in the U.S. in 2012 of approximately 19.60 mp valued at approximately $62.41 million (2014 dollars; data available at: http://www.st.nmfs.noaa.gov/commercial-fisheries/publications/index). Although the levels of domestic production and imports are not totally comparable for several reasons, including considerations of different product form such as fresh versus frozen, and possible product mislabeling, the difference in the magnitude of imports relative to amount of domestic harvest is indicative of the dominance of imports in the domestic market. Final comparable data for more recent years is not currently available.

3.3.2 Recreational Sector

3.3.2.1 Angler Effort

Recreational effort derived from the MRFSS/MRIP database can be characterized in terms of the number of trips as follows:

1. Target effort - The number of individual angler trips, regardless of duration, where the intercepted angler indicated that the species or a species in the species group was targeted as either the first or second primary target for the trip. The species did not have to be caught.

2. Catch effort - The number of individual angler trips, regardless of duration and target intent, where the individual species or a species in the species group was caught. The fish did not have to be kept.

3. Total recreational trips - The total estimated number of recreational trips in the Gulf, regardless of target intent or catch success.

Other measures of effort are possible, such as the number of harvest trips (the number of individual angler trips that harvest a particular species regardless of target intent), and directed trips (the number of individual angler trips that either targeted or caught a particular species), among other measures, but the three measures of effort listed above are used in this assessment. Estimates of the average annual red snapper effort (in terms of individual angler trips) for the charter and private/rental boat modes in the Gulf for 2010-2014 are provided in Table 3.3.2.1.1 for target trips and Table 3.3.2.1.2 for catch trips. Estimates of red snapper target effort for additional years, and other measures of directed effort, are available at http://www.st.nmfs.noaa.gov/recreational-fisheries/access-data/run-a-data-query/queries/index.

Because of the Deepwater Horizon MC252 oil spill, 2010 was not a typical year for recreational fishing due to the extensive closures and associated decline in fishing in much of the Gulf. For information on the Deepwater Horizon MC252 oil spill and associated closures, see: http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm. Recreational effort for Alabama and Louisiana was affected by the 2010 oil spill incident more than that for Florida. This holds true for both the charter (target and catch effort) and private modes (target and catch effort).

Table 3.3.2.1.1. Number of red snapper recreational target trips, by mode, 2010-2014*.

	Alabama	West Florida	Louisiana	Mississippi	Total
	Charter Mode				
2010	2,789	16,466	0	208	19,463
2011	19,010	29,642	1,424	0	50,076
2012	16,609	24,653	7,204	74	48,540
2013	23,638	32,689	7,191	38	63,556
2014	8,827	7,364	0	0	16,191
Average	14,175	22,163	3,164	64	39,565
	Private/Rental Mode				
2010	20,759	129,748	3,338	5,451	159,296
2011	116,886	113,021	19,900	16,790	266,597
2012	72,030	136,594	43,547	13,515	265,686
2013	222,245	461,349	24,691	21,586	729,871
2014	56,274	162,956	0	7,519	226,749
Average	97,639	200,734	18,295	12,972	329,640
	All Modes				
2010	23,548	146,214	3,338	5,659	178,759
2011	135,896	142,663	21,324	16,790	316,673
2012	88,640	161,247	50,751	13,589	314,227
2013	245,883	494,038	31,882	21,624	793,427
2014	65,101	170,321	0	7,519	242,941
Average	111,814	222,897	21,459	13,036	369,205

* Texas information unavailable. 2014 estimates are preliminary. Source: MRIP database, NMFS, SERO.
Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.
Note: There were no target trips recorded from the shore mode.

Table 3.3.2.1.2. Number of red snapper recreational catch trips, by mode, 2010-2014*.

	Alabama	West Florida	Louisiana	Mississippi	Total
	Charter Mode				
2010	12,495	57,662	205	261	70,623
2011	43,550	101,500	3,066	221	148,337
2012	25,252	105,385	10,501	74	141,212
2013	52,331	107,466	12,321	38	172,156
2014	32,173	60,270	0	0	92,443
Average	33,160	86,457	5,219	119	124,954
	Private/Rental Mode				
2010	46,017	252,300	5,764	6,964	311,045
2011	130,500	203,567	31,957	6,169	372,193
2012	83,783	282,332	51,377	13,515	431,007
2013	227,889	537,469	55,679	29,250	850,287
2014	104,862	190,994	0	10,163	306,019
Average	118,610	293,332	28,955	13,212	454,110
	All Modes				
2010	58,512	309,962	5,969	7,225	381,668
2011	174,050	305,067	35,023	6,390	520,530
2012	109,035	387,717	61,878	13,589	572,219
2013	280,221	644,935	68,000	29,288	1,022,444
2014	137,035	251,263	0	10,163	398,461
Average	151,771	379,789	34,174	13,331	579,064

* Texas information unavailable. 2014 estimates are preliminary. Source: MRIP database, NMFS, SERO.
Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.
Note: There were no catch trips recorded from the shore mode.

Headboat data do not support the estimation of target or catch effort because target intent is not collected and the harvest data (the data reflect only harvest information and not total catch) are collected on a vessel basis and not by individual angler. Table 3.3.2.1.3 contains estimates of the number of headboat angler days for all Gulf States for 2010-2014.

Table 3.3.2.1.3. Headboat angler days, 2010-2014.

Year	W Florida/Alabama	Louisiana	Mississippi	Texas	Total
2010	111,018	217	*	47,154	158,389
2011	157,025	1,886	1,771	47,284	207,966
2012	161,973	1,839	1,840	51,771	217,423
2013	174,800	1,579	1,827	55,749	233,955
2014	191,365	1,634	1,623	51,231	245,853
Average	159,236	1,431	1,765	50,638	212,717

*Confidential. Source: NMFS Southeast Region Headboat Survey (HBS).

3.3.2.2 Permits

The for-hire sector is comprised of charter boats and headboats (party boats). Although charter boats tend to be smaller, on average, than headboats, the key distinction between the two types of operations is how the fee is determined. On a charter boat trip, the fee charged is for the entire vessel, regardless of how many passengers are carried, whereas the fee charged for a headboat trip is paid per individual angler.

A federal for-hire vessel permit has been required for reef fish since 1996 and the sector currently operates under a limited access system. On April 25, 2015, there were 1,159 valid (non-expired) or renewable Gulf of Mexico Charter/Headboat Reef Fish Permits. A renewable permit is an expired permit that may not be actively fished, but is renewable for up to one year after expiration. Although the for-hire permit application collects information on the primary method of operation, the resultant permit itself does not identify the permitted vessel as either a headboat or a charter boat, operation as either a headboat or charter boat is not restricted by the permitting regulations, and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the NMFS Southeast Region Headboat Survey (HBS). Participation in the HBS is based on determination by the SEFSC that the vessel primarily operates as a headboat. Sixty-nine vessels were registered in the SHRS as of April 24, 2015 (K. Fitzpatrick, NMFS SEFSC, pers. comm.). The majority of these headboats were located in Florida (37), followed by Texas (16), Alabama (9), and Mississippi/Louisiana (7).

Information on Gulf charter boat and headboat operating characteristics, including average fees and net operating revenues, is included in Savolainen et al. (2012) and is incorporated herein by reference.

There are no specific federal permitting requirements for recreational anglers to fish for or harvest reef fish. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. As a result, it is not possible to identify with available data how many individual anglers would be expected to be affected by this proposed amendment. (Note: although it is not a federal permit, Louisiana has developed an offshore angler permit. Tabulation of these permits would be expected to provide an estimate of

only a small portion of the total number of individual anglers expected to be affected by this proposed amendment.)

3.3.2.3 Economic Value

Economic value can be measured in the form of consumer surplus (CS) per additional red snapper kept on a trip for anglers (the amount of money that an angler would be willing to pay for a fish in excess of the cost to harvest the fish). The estimated value of the CS per fish for a second red snapper kept on a trip is approximately $81 (Carter and Liese 2012; values updated to 2014 dollars[3]).

With regards to for-hire businesses, economic value can be measured by producer surplus (PS) per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of the PS per for-hire passenger trip are not available. Instead, net operating revenue (NOR), which is the return used to pay all labor wages, returns to capital, and owner profits, is used as a proxy for PS. The estimated NOR value is $153.45 (2014 dollars) per charter angler trip (Liese and Carter 2012). The estimated NOR value per headboat angler trip is $52.97 (2014 dollars) (C. Liese, NMFS SEFSC, pers. comm.). Estimates of NOR per red snapper target trip are not available.

3.3.2.4 Recreational Sector Business Activity

Estimates of the business activity (economic impacts) associated with recreational angling for red snapper were derived using average impact coefficients for recreational angling for all species, as derived from an add-on survey to the MRFSS to collect economic expenditure information, as described and utilized in NMFS (2011a). Estimates of these coefficients for target or catch behavior for individual species are not available. Estimates of the average expenditures by recreational anglers are also provided in NMFS (2011a) and are incorporated herein by reference.

Business activity for the recreational sector is characterized in the form of fulltime equivalent (FTE) jobs, output (sales) impacts (gross business sales), and value-added impacts (difference between the value of goods and the cost of materials or supplies). Job and output (sales) impacts are equivalent metrics across both the commercial and recreational sectors. Income impacts (commercial sector) and value-added impacts (recreational sector) are not equivalent, though similarity in the magnitude of multipliers generated and used for the two metrics may result in roughly equivalent values. Similar to income impacts, value-added impacts should not be added to output (sales) impacts because this would result in double counting.

Estimates of the average red snapper effort (2010-2014) and associated business activity (2014 dollars) are provided in Table 3.3.2.4.1. Red snapper target effort (trips) was selected as the measure of red snapper effort. More individual angler trips catch red snapper than target red

[3] Converted to 2014 dollars using the 2014 annual Consumer Price Index (CPI) for all US urban consumers provided by the Bureau of Labor and Statistics (BLS).

snapper, however, as shown in Tables 3.3.2.1.1 and 3.3.2.1.2. Estimates of the business activity associated with red snapper catch trips can be calculated using the ratio of catch trips to target trips because the available estimates of the average impacts per trip are not differentiated by trip intent or catch success. For example, if the estimated number of catch trips is three times the number of target trips for a particular state and mode, the estimate of the business activity associated with these catch trips would equal three times the estimated impacts of target trips.

The estimates of the business activity associated with red snapper recreational trips are only available at the state level. Addition of the state-level estimates to produce a regional or national total will underestimate the actual amount of total business activity because summing the state estimates will not capture business activity that leaks outside the individual states. A state estimate only reflects activities that occur within that state and not related activity that occurs in another state. For example, if a good is produced in Alabama but sold in Florida, the measure of business activity in Florida associated with the its sale in Florida does not include the production process in Alabama. Assessment of business activity at the national (or regional) level would capture activity in both states and include all activity except that which leaks into other nations.

It is noted that these estimates do not, and should not be expected to, represent the total business activity associated with a specific recreational harvest sector in a given state or in total. For example, these results do not state, or should be interpreted to imply, that there are only 154 jobs associated with the charter sector in Alabama. Instead, as previously stated, these results relate only to the business activity associated with target trips for red snapper. Because of the seasonal nature of red snapper fishing, few, if any businesses or jobs, would be expected to be devoted solely to red snapper fishing. The existence of these businesses and jobs, in total, is supported by the fishing for, and expenditures on, the variety of marine species available to anglers throughout the year.

Table 3.3.2.4.1. Summary of red snapper target trips (2010-2014 average) and associated business activity (2014 dollars). Output and value added impacts are not additive.

	Alabama	West Florida	Louisiana	Mississippi	Texas
	Private/Rental Mode				
Target Trips	97,639	200,734	18,295	12,972	*
Output Impact	$5,362,296	$11,031,053	$1,405,198	$463,965	*
Value Added Impact	$2,901,900	$6,246,386	$675,252	$235,988	*
Jobs	57	94	11	4	*
	Charter Mode				
Target Trips	14,175	22,163	3,164	64	*
Output Impact	$9,205,443	$16,516,389	$1,555,096	$26,341	*
Value Added Impact	$6,299,715	$11,042,093	$1,069,317	$18,555	*
Jobs	88	143	12	0	*
	All Modes				
Target Trips	111,814	222,897	21,459	13,036	*
Output Impact	$14,567,739	$27,547,442	$2,960,294	$490,305	*
Value Added Impact	$9,201,615	$17,288,479	$1,744,569	$254,543	*
Jobs	145	237	22	5	*

*Because target information is unavailable, associated business activity cannot be calculated.
Note: There were no target trips recorded from the shore mode.
Source: effort data from the MRIP, economic impact results calculated by NMFS SERO using the model developed for NMFS (2011b).

Estimates of the business activity (impacts) associated with headboat red snapper effort are not available. The headboat sector in the Southeast is not covered in the MRFSS/MRIP, so estimation of the appropriate impact coefficients for the headboat sector has not been conducted. While appropriate impact coefficients are available for the charter sector, potential differences in certain factors, such as the for-hire fee, rates of tourist versus local participation, and expenditure patterns, may result in significant differences in the business impacts of the headboat sector relative to the charter sector.

3.4 Description of the Social Environment

This section provides the conceptual and historical background for the reallocation of red snapper between the commercial and recreational sectors. Allocation is a social issue of assigning access to a scarce resource. Allocating between sectors is difficult to determine because the "characteristics, motivations, and output measures for participants differ dramatically" (Gislason 2006). Reallocation is inherently controversial when the result will

benefit some and be detrimental to others. When considering allocations of fishing privileges, the Magnuson-Stevens Act requires fishery managers to examine social and economic factors as laid out in the National Standards. These include National Standard 4 which states if it becomes necessary to allocate fishing privileges among fishermen, the allocation will be fair and equitable, will promote conservation, and be carried out such that no particular entity receives an excessive share; National Standard 5 which states conservation and management measures will consider efficiency in the utilization of fishery resources except that no such measure will have economic allocation as its sole purpose; and National Standard 8 which states that conservation and management measures shall take into account the importance of fishery resources to fishing communities.

NMFS' technical memorandum on the principles and practice of allocation (Plummer et al. 2012) identifies two main criteria for the national standard mandates. Each criterion is based on a conceptual approach from distinct social sciences: economic efficiency and social equity. While a quantitative framework exists for analyzing economic efficiency, there is no such quantitative framework for evaluating fairness and equity (Plummer et al. 2012).

Plummer et al.'s (2012) review of approaches to evaluate fairness focuses on critiques of the application of efficiency analyses to policy. Specifically, efficiency is critiqued for the decision to ignore issues of equity by reducing such social concerns to assumptions of "other things being equal" (Dietz and Atkinson 2010, Copes 1997, Bromley 1977), when in fact, they are not. Assuming "other things being equal," as used in efficiency analyses, may omit consideration of interdependencies that may be important for their distributional effects (Copes 1997:65). That other things are *not* equal, precisely reflects those components of the human environment that are at the center of equity considerations. Further, willingness-to-pay studies measure perceptions and ideology of respondents more than actual behavior (Hausman 2012), overestimating any potential net benefits.

Although efficiency and fairness are often presented as a trade-off in environmental policy, research has shown that the public does not support prioritizing efficiency at the expense of equity (Dietz and Atkinson 2010:440), and that allocation fairness in the distribution of fishing rights is just as important as efficiency for making policy decisions (Bromley 1977). Ultimately, it is not possible to determine the expected net economic outcome resulting from the proposed sector reallocations, because inferences about economic efficiency are erroneous when each sector's quota is not efficiently allocated within the sector (Section 4.1.4).

According to a review of all allocation decisions made by regional fishery management councils around the country (Plummer et al. 2012), nearly all allocation decisions have been based on historical or current landings ratios. Following initial establishment of a sector allocation, seven stocks were identified as having undergone a revision to the original allocation; five of these examples are in the Gulf. One, vermilion snapper, had its sector allocation removed entirely. Of the remaining four Gulf examples, two stocks had their allocations shifted in favor of the recreational sector: greater amberjack (Amendment 30A, GMFMC 2008a) and red grouper (Amendment 30B, GMFMC 2008b). However, in both cases, an interim allocation was adopted and the selection of a new allocation was postponed until after the Council developed an allocation policy.

For greater amberjack, the action addressing sector allocation was moved to the considered but rejected section of the amendment; no reallocation was formally adopted. An interim allocation was agreed upon and the Council selected other management measures to reduce fishing effort by both sectors. For red grouper, the initial allocation decision in Amendment 1 (GMFMC 1989) set an aggregate grouper sector allocation, but did not establish allocations for individual grouper species. In 2004, a commercial red grouper quota was created, but the amendment specifically stated that no allocation decision was being made; the commercial quota represented 81% of the total allowable catch (GMFMC 2004b). As with greater amberjack, in 2008, the Council agreed upon an interim sector allocation and delayed further action until the Council could develop an allocation policy and consider the issue further. Thus, the two actions affected the distribution of access to the resource while postponing the formal establishment of a new sector allocation.

The other two Gulf examples concern species for which management is shared between the Gulf and South Atlantic Councils: king and Spanish mackerel. Since it was first established in 1987, the allocation for the Atlantic stock of Spanish mackerel has been changed twice, once toward the recreational sector and once toward the commercial sector. Initially established at 76% commercial and 24% recreational, the allocation was changed in 1989 to 50%:50%, due to a determination that the allocation was based on a time period of overfishing and low recreational participation. In 1998, the commercial allocation was increased because the recreational sector was not harvesting its quota. The 2% change in the king mackerel allocation towards the commercial sector was an adjustment to account for the sale of recreational catches that counted against the commercial quota. The allocations of both these species are scheduled to be reviewed in Coastal Migratory Pelagics Amendment 24, currently under development.

Finally, the remaining two cases come from the Pacific Fishery Management Council's management of salmon, Amendments 7 (PFMC 1986) and 9 (PFMC 1988). In contrast to nearly all allocation decisions that have been based on landings ratios, the rationale for these two cases was to provide more stability to the recreational sector. For both stocks, the recreational component is a directed fishery while the commercial component is provided for bycatch. In both examples, the reallocation was based on the recommendations from a working group of commercial and recreational fishermen and is an example of negotiation-based allocation. Also in this case, the sector allocations shift depending on the size of the quota, similar in design to Alternatives 5 and 6 in this amendment.

Context of red snapper management in the Gulf

In the Gulf, the commercial and recreational sectors are managed differently and separately. The existing allocation for red snapper was implemented in 1990 alongside the establishment of a total allowable catch, and corresponding management measures intended to reduce landings by 20% for each sector (GMFMC 1989). Thus, at the time the allocation was established, there was already great demand for red snapper by both sectors. Since that time, the number of both recreational anglers and seafood consumers has increased, along with the volume of tourists and participation of other stakeholder groups in fishery management. The issue of reallocating red snapper is driven by competing visions of who should have access privileges to the resource: recreational, commercial, and/or others.

A minimum size limit of 13" was adopted for both sectors, alongside a recreational bag limit of 7 fish per angler per day, and a commercial quota of 3.1 mp. Since then, both sectors have been subject to additional measures to reduce harvests and effort (Figure 3.4.1) which have been insufficient to restrict harvests before reaching the quota for either sector (Figure 3.4.2).

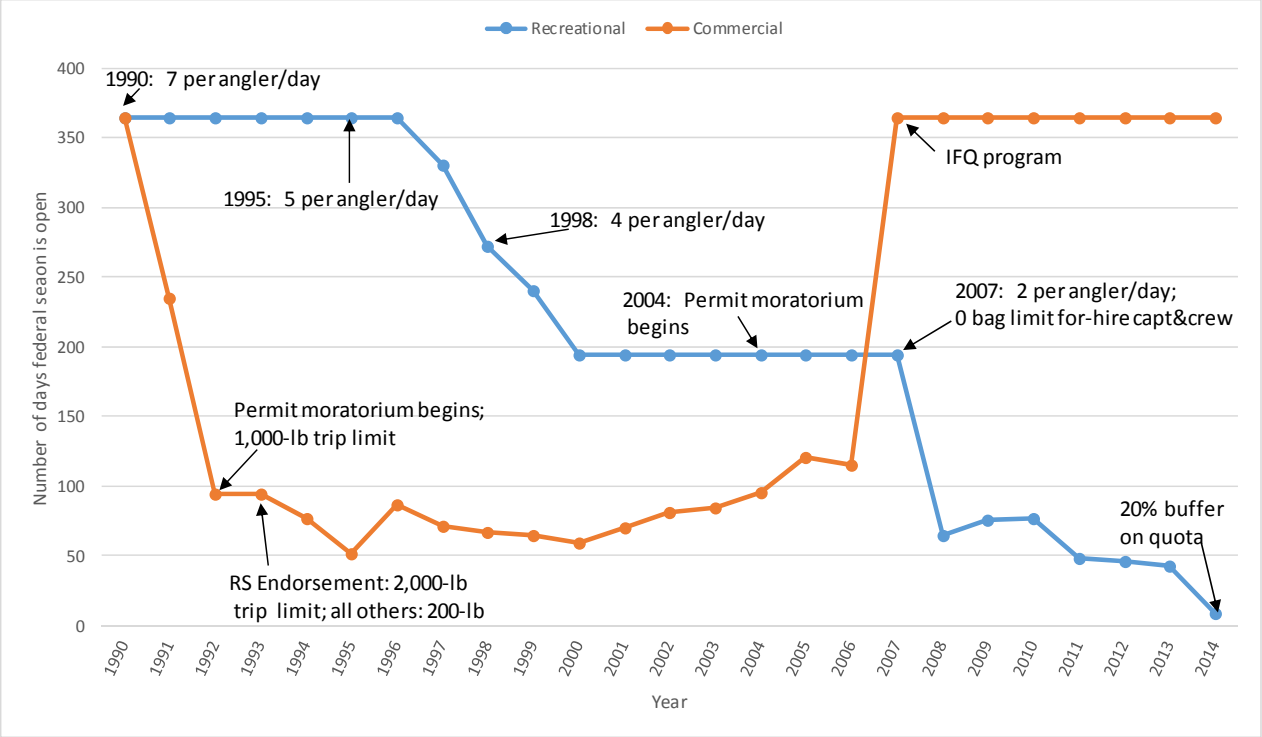

Figure 3.4.1. Length of fishing season in federal waters for commercial and recreational sectors (1990-2014), with changes in bag limits, trip limits, and implementation dates of limited access regulations. The timeline does not include minimum size limits or additional requirements such as use of a vessel monitoring system.

For the **commercial sector**, the year the allocation was established (1990) was the last year commercial fishing was open year round until implementation of the RS-IFQ program in 2007 (Figure 3.4.1). Entry to the commercial sector was capped in 1992, when the commercial reef fish permit moratorium began. No additional commercial permits have been available since that time, effectively capping sector participation. The following year, the system of red snapper endorsements for commercial permit holders was adopted. A red snapper endorsement allowed the holder a 2,000-lb trip limit, while all other commercial permit holders were allowed a 200-lb trip limit.

Despite the adoption of endorsements and trip limits to constrain harvests, from the early 1990's until implementation of the RS-IFQ program, the commercial fishing seasons were best described as "derbies," where vessels raced to fish before each harvest closure. During this time, the commercial harvest was usually open only 10 days at a time. The RS-IFQ program was

implemented in 2007 to address two identified problems in commercial red snapper fishing: the derby fishing conditions and "overcapacity" in the commercial sector.

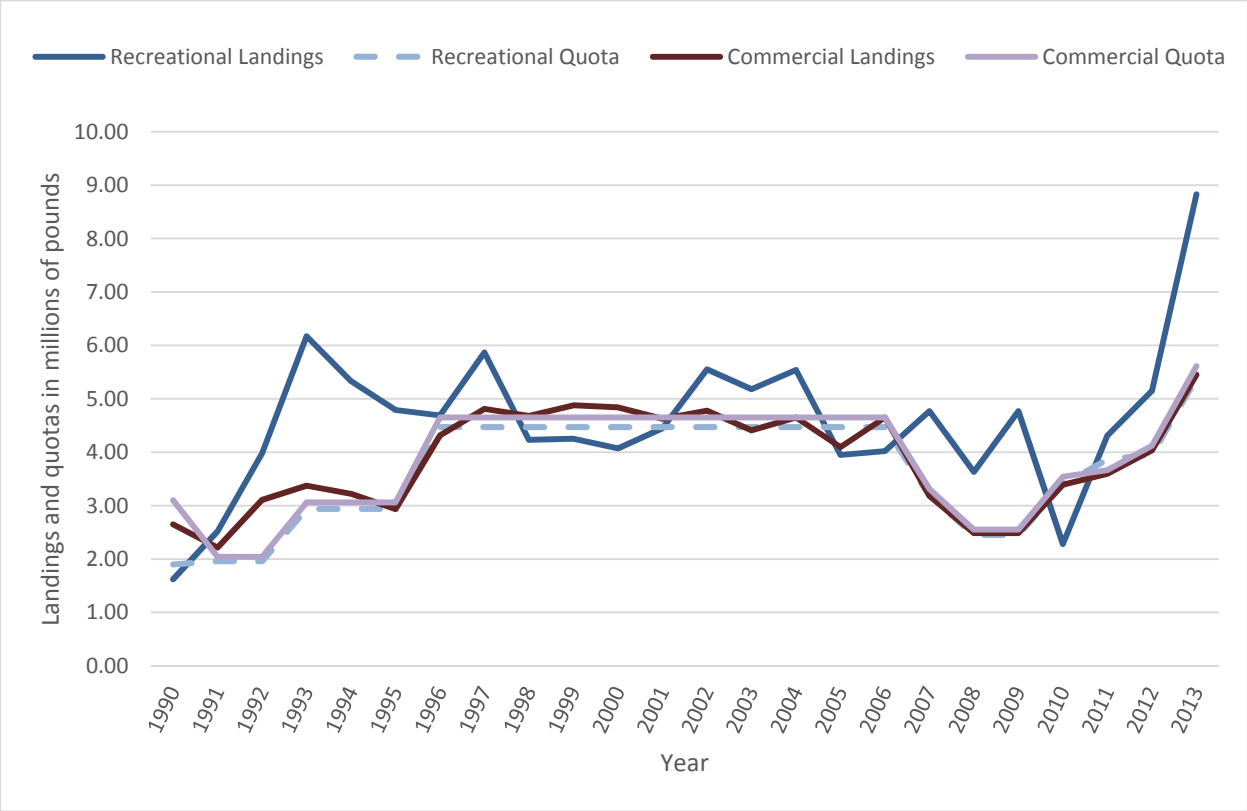

Figure 3.4.2. Recreational and commercial landings (solid lines) and quotas (dotted lines).

The RS-IFQ program fundamentally restructured commercial fishing for red snapper. The opportunity for any permitted commercial vessel to harvest a trip limit of red snapper during a short open season was replaced by a system in which a vessel's crew must obtain access to a quantity of red snapper prior to being landed. Thus, the system of attempting to constrain commercial harvest to a quota using trip limits and closed seasons was replaced by a system based on the distribution and exchange of portions of the red snapper commercial quota. This has effectively eliminated the occurrence of quota overages. From the sector-wide perspective, this has enabled the fishing season to remain open year round and for total landings to remain within the quota. The implementation of the RS-IFQ program has resolved both issues of subtractability and excludability, within the sector (see below). Though these controls appear to have improved the problems they were designed to address, the program has benefited some fishermen and been a detriment to others.

Although the **recreational sector** is often described as "open access," open entry is more accurate as a true open access resource lacks rules of usage (Feeny et al. 1990). For the recreational sector, harvest constraints are implemented primarily by reductions to the bag limit and shortening of the fishing season. The bag limit has been reduced from seven red snapper per

angler per day in 1990 (when the sector allocation was established), to five fish in 1995, four fish in 1998, and two fish in 2007 (Figure 3.4.1). In 1997, the recreational season in federal waters was shortened for the first time from year round and has been getting shorter ever since. From 2008 through 2012, the recreational season in federal waters averaged 62 days in length. In 2014, the season lasted nine days in federal waters; additional fishing opportunities were provided by the Gulf States in respective state territorial waters.

The practice in recent years of projecting season length for a given quota based on past effort has not prevented the quota from being exceeded (Figure 3.4.2). Without attending measures to actually stop harvest when the quota is met, a quota does not on its own constitute an output control. There is a disjunction between management measures used to constrain the rate of recreational harvest, and attempts to estimate the rate of harvest under such measures, as anglers modify their fishing activity in response to new access restrictions. Even with additional quota, continuing to rely on existing management measures to slow harvest may allow two problems to continue. First, the harvest coming from the recreational sector will continue to face the problems of "subtractability" and "excludability," where the resource is open to anyone able to access it during a particular time. Without rules governing who has access to the resource (excludability), the effects of smaller returns are shared among all participants (subtractability; Feeny et al. 1990; McCay and Acheson 1987).

The second problem concerns the quota overages. Alongside the short seasons and lag time to calculate landings from MRIP, quota overages are likely to continue under the system of predicting season length based on past fishing effort. Faced with a shorter season for a desired target species, individual anglers rationally adjust their effort and fishing activity. With no restrictions on entry to the fishery (excludability), new participants join as well. This has resulted in an inverse relationship between season length and effort, where the shorter the length of the recreational fishing season, the more red snapper have been landed per day, as angler effort is consolidated into a shorter time. However, it cannot be assumed that the pattern would reverse, where an increase in the length of the season would correspond with a proportional reduction in effort. An increasing proportion of the total recreational quota has been landed outside of the federal season under less restrictive state regulations. Compounding this problem, the average weight of a red snapper has increased under the rebuilding plan meaning that each angler's bag limit weighs more. Thus, the rate at which the quota is caught accelerates. That recreational anglers as a sector are said to "exceed the quota" is not a reflection of individual angler compliance, but rather, reflects rational changes to fishing activity under situations of decreased access, and the inability of the existing management system to close harvest before the quota is met. To reduce the likelihood of further quota overages, the Council recently adopted accountability measures that establish 1) a 20% buffer to the recreational quota, on which the season length would be projected; and 2) an overage adjustment which would decrease the recreational quota in the year following a quota overage by the amount of the overage (GMFMC 2014a). Preliminary landings for 2014 show that recreational landings remained well below the sector's quota.

Recreational anglers can access red snapper fishing by private vessels and for-hire vessels. Both modes share the same bag limit and fishing season; however, additional restrictions are placed on the for-hire fleet, to which private vessels are not subject. Since 2007, captain and crew of for-

hire vessels have been prohibited from retaining a bag limit, and there are mandatory reporting requirements for headboats to report all landings and discards. In 2004, a moratorium was put in place on the issuance of federal for-hire permits. As with commercial permits, no new federal for-hire permits may be issued, but existing permits may be transferred. There is no mechanism to limit entry by private recreational vessels. Also, since 2009, federally permitted for-hire vessels are prohibited from landing red snapper outside of the federal season, such as during extended state water seasons.

Thus, the issue of excludability described above reflects private recreational vessels only. During the open season, participation is limited to a finite number of for-hire vessels, but there is no restriction to the number of private vessels that may harvest red snapper. Since the permit moratorium became effective, the number of federally permitted for-hire vessels has decreased, while the number of private fishing licenses has increased. The proportion of red snapper landed by each component of the recreational sector has shifted toward private vessel landings representing a greater proportion of the recreational quota (Figure 3.4.3). For the years 1991-2011, private-angler landings of red snapper represent 45.5% of recreational landings, but represent 56% for just the last six years. For-hire vessel landings of red snapper have decreased proportionally for these same years, from 54.5% to 44% of the recreational landings.

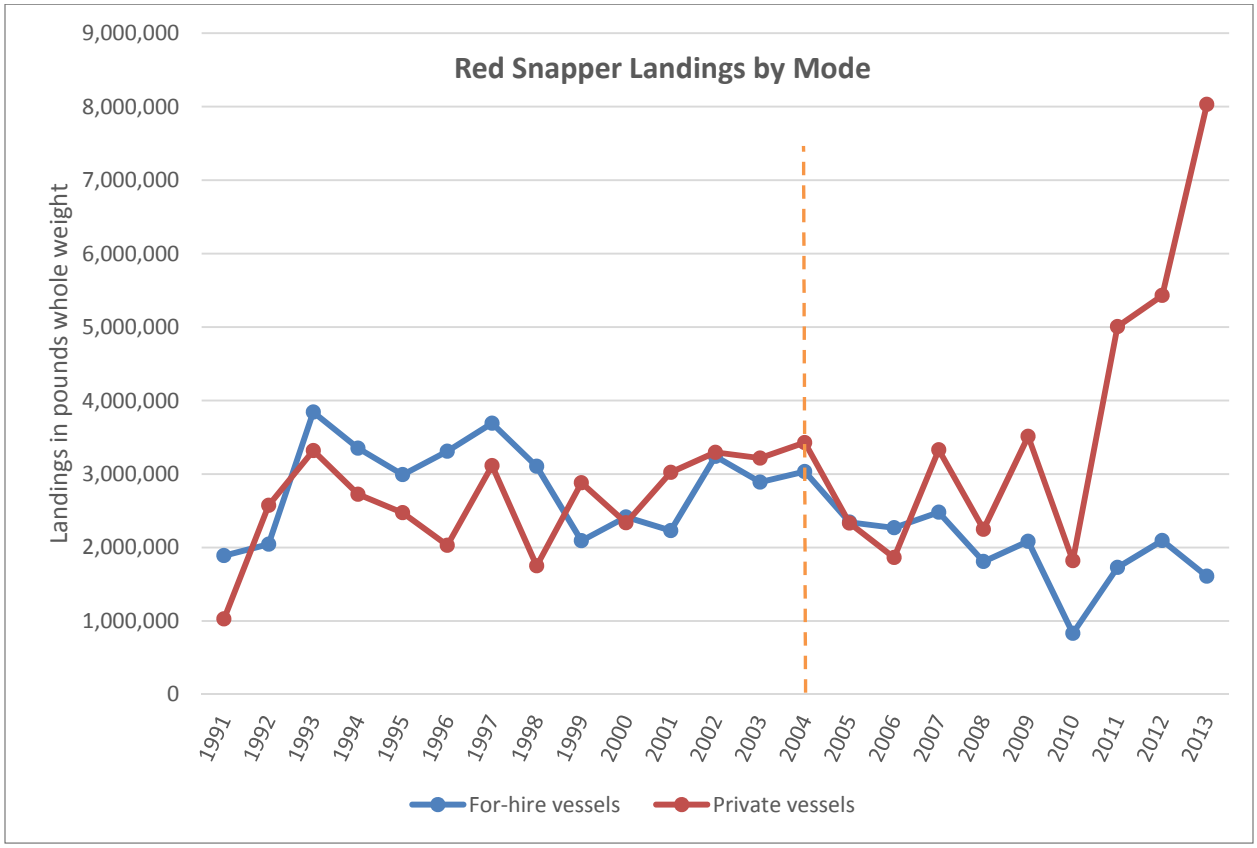

Figure 3.4.3. Red snapper recreational landings by private vessels and for-hire vessels (includes charter boats and headboats). Source: Calibrated MRIP landings, SEFSC Recreational ACL database.

In part as a response to this trend, separate allocations were recently established for the private angling component and the federal for-hire component of the recreational sector (GMFMC 2014b). These component allocations will be the basis for projecting the season lengths in federal waters for anglers utilizing private vessels and state-licensed guideboats (private angling component) and those fishing from federally permitted for-hire vessels (for-hire component). The component allocations and seasons will be in place for the years 2015-2017, unless otherwise modified by the Council.

Fishing Communities

This section provides a description of where recreational and commercial fishing for red snapper occurs. The description is based on the geographical distribution of landings and the relative importance of red snapper for commercial and recreational communities. This spatial approach enables discussion of fishing communities and the importance of fishery resources to those communities, as required by National Standard 8.

Commercial Fishing Communities

To identify commercial reliance, a regional quotient (RQ) measure was used. The RQ measures the relative importance of a given species across all communities in the region and represents the proportional distribution of commercial landings of a particular species. This proportional measure does not provide the number of pounds or the value of the catch; data that might be confidential at the community level for many places. The RQ is calculated by dividing the total pounds (or value) of a species landed in a given community, by the total pounds (or value) for that species for all communities in the region. The measure is a way to quantify the importance of red snapper to communities around the Gulf coast and suggest where impacts from management actions are more likely to be experienced. The data used for the RQ measure were assembled from the accumulated landings system (ALS), which includes commercial landings of all species from both state and federal waters and is based on dealers' reports. Because of this, the address of a dealer may not be the coastal community where the dealer's facility is located.

Commercial red snapper fishing is prosecuted throughout the Gulf region with the majority of landings occurring in the northern Gulf. Based on the RQ measure, the top 15 commercial red snapper fishing communities are identified in Figure 3.4.4. A community's proportion of total landings is not static and changes over time. Thus, the figure provides rankings by RQ value for four years: 2000, 2005, 2008, and 2011. The top three communities in terms of commercial landings are Galveston, Texas; Destin, Florida; and Golden Meadow, Louisiana (Figure 3.4.4). While in 2000, Panama City, Florida ranked first for commercial red snapper landings Gulf-wide, the community has since been replaced by Destin, Florida in terms of commercial landings of red snapper. Data are not available concerning location of red snapper consumers, such as the proportion of Gulf red snapper that is consumed within the region or elsewhere in the U.S.

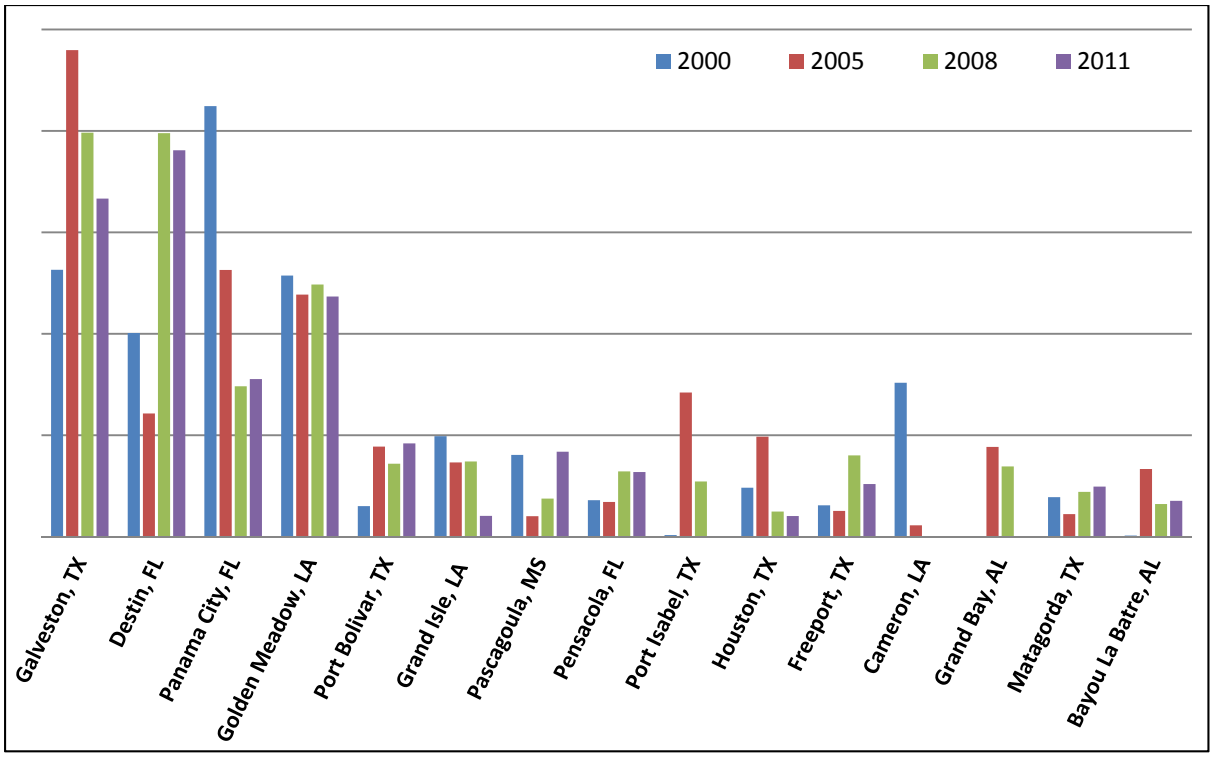

Figure 3.4.4. Top 15 commercial red snapper fishing communities by RQ value for four years. Source: Southeast Fisheries Science Center, accumulated landings system (2011).

To better understand how Gulf fishing communities are engaged and reliant on fishing, indices were created using secondary data from permit and landings information for the commercial and recreational sectors (Jepson and Colburn 2013; Jacob et al. 2012). Fishing engagement is primarily the absolute numbers of permits, landings, and value. Fishing reliance has many of the same variables as engagement divided by population to give an indication of the per capita impact of this activity.

Using a principal component and single solution factor analysis each community receives a factor score for each index to compare to other communities. With the selected communities from both sectors, factor scores of both engagement and reliance were plotted onto bar graphs. Factor scores are denoted by colored bars and are standardized, therefore the mean is zero. Two thresholds of one and ½ standard deviation above the mean are plotted onto the graphs to help determine a threshold for significance. Because the factor scores are standardized a score above 1 is also above one standard deviation. Using the thresholds of fishing dependence of ½ and one standard deviation, Figure 3.4.5 suggests that several communities are substantially engaged or reliant or both on commercial fishing.

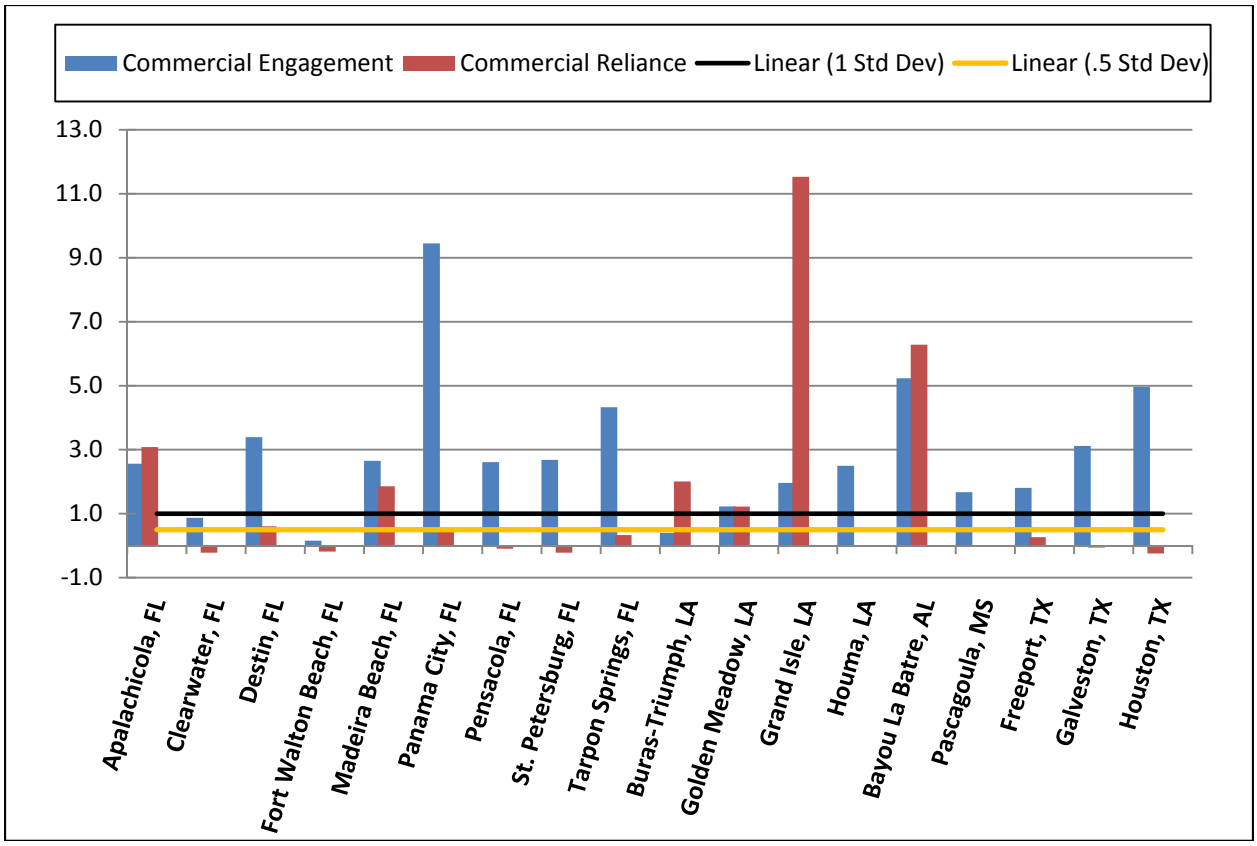

Figure 3.4.5. Top 18 red snapper fishing communities' commercial engagement and reliance. Source: Southeast Regional Office, social indicators database (2012).

Recreational Fishing Communities

Red snapper is harvested recreationally in all states in the Gulf. However, as the red snapper stock has continued to rebuild, the proportion of landings made up by the eastern Gulf States (Alabama and western Florida) has increased compared to the western Gulf States (Texas and Louisiana). Most of the recreational catch is now landed in the eastern Gulf (Table 3.4.1). Fishermen in other Gulf States are also involved in recreational red snapper fishing, but these states represent a smaller percentage of the total recreational landings.

Table 3.4.1. Percentage of total recreational red snapper landings by state for 2013.

State	Landings
AL	43.9%
FL (Gulf Coast)	40.8%
LA	6.0%
MS	4.5%
TX	4.9%

Source: SERO Calibrated MRIP landings (Dec 2014).

Red snapper landings for the recreational sector are not available at the community level, making it difficult to identify communities as dependent on recreational fishing for red snapper. Data reflecting commercial landings of red snapper may or may not reflect areas of importance for recreational fishing of red snapper. It cannot be assumed that the proportion of commercial red snapper landings among other species in a community would be similar to its proportion among recreational landings within the same community because of sector differences in fishing practices and preferences.

While there are no landings data at the community level for the recreational sector, Table 3.4.2 offers a ranking of communities based upon the number of reef fish charter permits and reef fish charter permits divided by population. This is a crude measure of the reliance upon recreational reef fish fishing and is general in nature and not specific to red snapper. Ideally, additional variables quantifying the importance of recreational fishing to a community would be included (such as the amount of recreational landings in a community, availability of recreational fishing related businesses and infrastructure, etc.); however, these data are not available at this time. Because the analysis used discrete geo-political boundaries, Panama City and Panama City Beach had separate values for the associated variables. Calculated independently, each still ranked high enough to appear in the list suggesting a greater importance for recreational fishing in that region. At this time it is impossible to examine the intensity of recreational fishing activity at the community level for a specific species. However, it is likely that those communities that have a higher rank in terms of charter activity and have a dynamic commercial fishery for red snapper will likely have a vigorous recreational red snapper fishery. The communities that meet those criteria are: Destin, Panama City, and Pensacola, Florida; Port Bolivar and Freeport, Texas; and Venice and Grand Isle, Louisiana.

Table 3.4.2. Average community rank by total number of reef fish charter permits and divided by community population (SERO 2012).

State	Community	Reef Fish charter permits	Permit Rank	Pop	Permit/Pop	Permit/Pop rank	Combined rank
AL	Orange Beach	105	2	5185	0.0203	3	5
LA	Venice	36	7	202	0.1782	1	8
FL	Destin	114	1	12307	0.0093	10	11
AL	Dauphin Island	19	12	1375	0.0138	5	17
TX	Port Aransas	33	9	3444	0.0096	9	18
LA	Grand Isle	14	17	597	0.0235	2	19
TX	Freeport	40	5	12183	0.0033	15	20
TX	Port O'Connor	15	15	1253	0.0120	7	22
FL	Panama City	60	3	36795	0.0016	20	23
FL	Steinhatchee	13	19	1047	0.0124	6	25
FL	Pensacola	43	4	52903	0.0008	22	26
FL	Panama City Beach	32	10	11364	0.0028	16	26
FL	Apalachicola	17	14	2357	0.0072	12	26
FL	Naples	35	8	20405	0.0017	19	27
LA	Chauvin	15	15	3220	0.0047	13	28
TX	Galveston	38	6	49990	0.0008	23	29
FL	Cedar Key	8	27	463	0.0173	4	31
TX	Matagorda	8	27	710	0.0113	8	35
MS	Biloxi	26	11	43921	0.0006	25	36
FL	Mexico Beach	9	25	1181	0.0076	11	36
FL	Carrabelle	10	23	2612	0.0038	14	37
FL	Sarasota	18	13	52877	0.0003	26	39
FL	Madeira Beach	11	21	4335	0.0025	18	39
FL	Port St Joe	10	23	3560	0.0028	17	40
FL	Tarpon Springs	14	17	23071	0.0006	24	41
FL	St Petersburg	12	20	245715	0.0000	27	47
FL	Treasure Island	8	27	6847	0.0012	21	48
TX	Houston	11	21	2068026	0.0000	29	50
TX	Corpus Christi	9	26	299324	0.0000	28	54

Destin and Panama City are likely more reliant with regard to recreational fishing as they have numerous charter operations. When visiting charter service websites from these two communities photos of red snapper are very prominent and advertised as a key target species (http://www.fishdestin.com/fishinggallery.html; and http://www.jubileefishing.com/). Panacea is less reliant upon red snapper and located in a more rural area than the other communities. In terms of occupation it has the lowest percentage working in farming, forestry, and fishing, yet it does have the largest percentage class of worker in that category. All of these communities are considered to be primarily involved in fishing based upon their community profiles (Impact Assessment, Inc. 2005).

The Orange Beach Red Snapper World Championship Tournament, billed as "Alabama's state celebration of recreational saltwater fishing,"[4] was an annual event in March. Dauphin Island, Alabama also has a number of charter services that specialize in bottom fishing, especially for red snapper[5]. All three Alabama communities are considered primarily involved in fishing as noted in their fishing communities' profiles (Impact Assessment, Inc. 2006). Red snapper fishing is featured at Pascagoula charter websites[6] and the community is regarded as primarily involved in fishing according to its community profile (Impact Assessment, Inc. 2006).

Venice and Grand Isle, Louisiana, are also ranked among the top recreational fishing communities. A sampling of charter service websites from these communities indicates they do feature red snapper as a target species but not as prominently as charter services from other states.

Red snapper are also an important species for charter fishing in Galveston and Freeport, Texas. Many of the charter services include photos of red snapper catches on their website and note that this species is one of their prime target species.[7] Although, many inshore species like trout and redfish are more prominently displayed. Matagorda and Freeport are noted as being primarily involved in fishing while Galveston is secondarily involved.

The following figure was produced from the indicator database as described above for the commercial sector. Figure 3.4.6 identifies recreational communities engaged and reliant upon fishing in general. Using thresholds of fishing dependence of ½ standard deviation and one standard deviation, Figure 3.4.6 suggests that several communities are substantially engaged in recreational fishing.

[4] http://www.cityoforangebeach.com/pages_2007/pdfs/events/2009/2009_Snapper_Tournament.pdf
[5] http://gulfinfo.com/fishing.htm
[6] http://www.jkocharters.com/1938863.html
[7] http://www.texassaltwaterfishingguide.com/ or http://www.matagordabay.com/

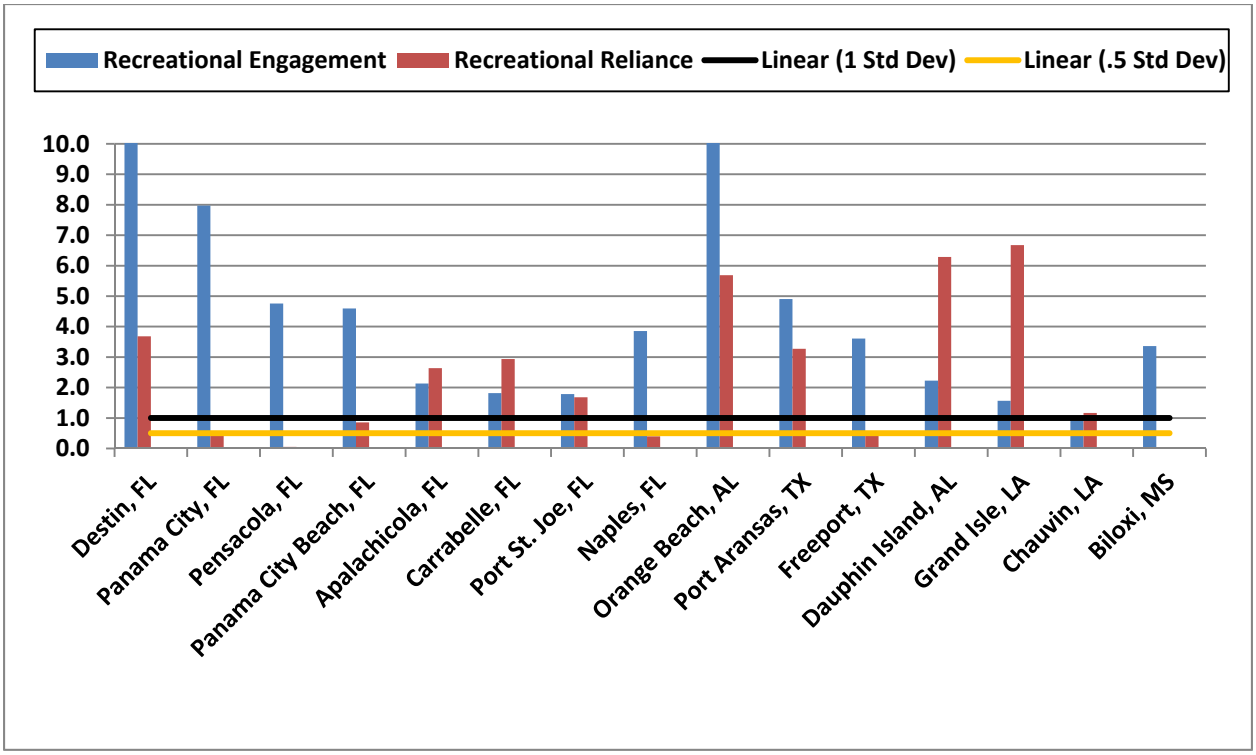

Figure 3.4.6. Top 15 recreational fishing communities' engagement and reliance.
Source: Southeast Regional Office, social indicators database (2012).

3.5 Description of the Administrative Environment

3.5.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 *et seq.*), originally enacted in 1976 as the Fishery Conservation and Management Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the Exclusive Economic Zone (EEZ), an area extending 200 nautical miles from the seaward boundary of each of the coastal states, and authority over U.S. anadromous species and continental shelf resources that occur beyond the EEZ.

Responsibility for federal fishery management is shared by the Secretary of Commerce (Secretary) and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for promulgating regulations to implement proposed plans and amendments after ensuring management measures are consistent with the Magnuson-Stevens Act and with other applicable laws summarized in Appendix A. In most cases, the Secretary has delegated this authority to NMFS.

The Council is responsible for fishery resources in federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The length of the Gulf coastline is approximately 1,631 miles. Florida has the longest coastline of 770 miles along its Gulf coast, followed by Louisiana (397 miles), Texas (361 miles), Alabama (53 miles), and Mississippi (44 miles).

The Council consists of seventeen voting members: 11 public members appointed by the Secretary; one each from the fishery agencies of Texas, Louisiana, Mississippi, Alabama, and Florida; and one from NMFS. The public is also involved in the fishery management process through participation on advisory panels and through Council meetings that, with few exceptions for discussing personnel matters, national security, or litigation briefings, are open to the public. The regulatory process is also in accordance with the Administrative Procedures Act, in the form of "notice and comment" rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

Regulations contained within FMPs are enforced through actions of the National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement, the United States Coast Guard, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the Magnuson-Stevens Act. These activities are being coordinated by the Council's Law Enforcement Advisory Panel and the Gulf States Marine Fisheries Commission's Law Enforcement Committee, which have developed a 5-year "Gulf of Mexico Cooperative Law Enforcement Strategic Plan – 2008-2012." The red snapper stock in the Gulf of Mexico is classified as overfished, but no longer

undergoing overfishing. A rebuilding plan for red snapper was first implemented under Amendment 1 to the FMP (GMFMC 1989), and has undergone several revisions. The current rebuilding plan was established in Amendment 27 to the FMP (GMFMC 2007), and calls for rebuilding the stock to a level capable of supporting MSY on a continuing basis by 2032. Periodic adjustments to the annual catch limit and other management measures needed to affect rebuilding are implemented through amendments and framework actions.

3.5.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf States exercises legislative and regulatory authority over their respective state's natural resources through discrete administrative units. Although each agency is the primary administrative body with respect to the states natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources. A more detailed description of each state's primary regulatory agency for marine resources is provided in Amendment 22 to the FMP (GMFMC 2004a).

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

Action – Retain a Portion of the Commercial Red Snapper Quota for 2016

Alternative 1: No Action - Distribute a 100% of the 2016 red snapper commercial quota to red snapper Individual Fishing Quota (RS-IFQ) account shareholders on January 1, 2016.

Alternative 2: Before the distribution of the 2016 red snapper commercial quota to RS-IFQ account shareholders**, withhold up to 34.7 % of the red snapper commercial quota**. The exact amount to be retained for later distribution will be determined by the percentage of the red snapper commercial quota that would be reallocated to the recreational sector under Reef Fish Amendment 28.

4.1 Effects on the Physical Environment

The impacts to the physical environment resulting from shifting sector allocations is discussed in Amendment 28, and is hereby incorporated by reference. Withholding part of the commercial quota (**Alternative 2**) should not have any impacts on the physical environment beyond those already addressed in Amendment 28.

An evaluation of the effects of the alternatives on the physical environments relative to the no action (**Alternative 1**) indicates that this action does not directly affect these environments and likely has only minimal indirect effects. The magnitude of these effects should be positively correlated with the change in allocation as presented in Amendment 28 (GMFMC 2015). For the physical environment, some effort shifting between sectors is likely to occur for red snapper; however, because the reef fish fishery is a multispecies fishery, any shifting is likely to be small given the overall effort of the fishery as a whole.

4.2 Effects on the Biological/Ecological Environment

The impacts to the biological environment resulting from shifting sector allocations is discussed in Amendment 28, and is hereby incorporated by reference. Withholding part of the commercial quota (**Alternative 2**) should not have any impacts on the biological environment beyond those already addressed in Amendment 28.

An evaluation of the effects of the alternatives on the biological environment relative to the no action (**Alternative 1**) indicates that this action does not directly affect these environments and likely has only minimal indirect effects. The magnitude of these effects should be positively correlated with the change in allocation as presented in Amendment 28 (GMFMC 2015). Both alternatives are expected to allow the stock to recover by 2032, resulting in positive effects and maintaining consistency with the rebuilding plan. Increasing the recreational quota is not

expected to increase impacts to the biological environment. The increase in recreational quota as a result of Amendment 28 (GMFMC 2015) would inherently increase the fishing effort, and, in turn, enhance the effects on the biological environment including targeted and non-targeted species. However, these effects would be minimal given the overall effort in the reef fish fishery.

Indirect effects of these alternatives on the ecological environment are not well understood. Changes in the population size structure, as a result of changing fishery selectivity and variations in stock abundance, could impact abundance of other reef fish species. Predators of red snapper could increase if red snapper abundance is increased, while species competing for similar resources as red snapper could potentially decrease in abundance if food and/or shelter are less available. Another effect of an expanding red snapper population could be a continuation of the reestablishment of red snapper populations in historical areas of occurrence in the eastern Gulf of Mexico (Gulf). As the red snapper stock has rebuilt, the average size of red snapper caught in the recreational sector has also increased. As a result, the recreational quota has been reached faster with fewer fish caught, which has caused shorter seasons despite quota increases (see http://sero.nmfs.noaa.gov/sustainable_fisheries/gulf_fisheries/red_snapper/index.html). Because of the resultant extended closed seasons, fishermen may be changing targeting practices away from red snapper and onto alternate closely associated species. Species likely to be affected by changes in red snapper abundance include vermilion snapper, gray triggerfish, and gag, which all co-occur with red snapper. However, these species are managed using annual catch limits so any impacts from changes in fishing effort will be minimal.

On September 30, 2011, the Protected Resources Division released a biological opinion which, after analyzing the best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC252 oil spill in the northern Gulf), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf reef fish fishery is also not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011b). The final rule also included some areas that contain foraging habitat and two large areas that contain *Sargassum* habitat as critical habitat. In a memo dated February 13, 2013, NMFS determined the reef fish fishery was not likely to adversely affect *Acropora* because of where the fishery operates, the types of gear used in the fishery, and that other regulations protect *Acropora* where they are most likely to occur. None of the new information regarding population level concerns would affect those determinations. Other listed species and designated critical habitat in the Gulf were determined not likely to be adversely affected. In 2014, the National Marine Fisheries Service (NMFS) published a final rule (79 FR 39855) that designated 38 occupied marine areas within the Atlantic Ocean and Gulf of Mexico as critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle Distinct Population Segment. These areas contain one or a combination of nearshore reproductive habitat, winter area, breeding areas, and migratory corridors.

On July 10, 2014, NMFS published a final rule designating 38 occupied marine areas within the Atlantic Ocean and Gulf as critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle distinct population segment (79 FR 39856). These areas contain one or a combination of

nearshore reproductive habitat, winter area, breeding areas, and migratory corridors, or contain sargassum habitat. In the Gulf, designated critical habitat contains either nearshore reproductive habitat or sargassum habitat. Relative to this final rule, NMFS concluded in a September 16, 2014, memo that activities associated with the Gulf Reef Fish FMP will not adversely affect any of the aforementioned critical habitat units. The fishery managed by the FMP will either have no effect on the critical habitat due to location or methods, or will have discountable or insignificant effects that will not adversely affect the habitat's ability to perform its function.

In 2014, NMFS published a final rule (79 FR 39855) that designated 38 occupied marine areas within the Atlantic Ocean and Gulf of Mexico as critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle Distinct Population Segment. These areas contain one or a combination of nearshore reproductive habitat, winter area, breeding areas, and migratory corridors. On September 30, 2011, the Protected Resources Division released a biological opinion which, after analyzing the best available data, the current status of the species, an environmental baseline (including the impacts of the recent Deepwater Horizon MC 252 oil spill in the northern Gulf), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011b). The final rule also included some areas that contain foraging habitat and two large areas that contain Sargassum habitat as critical habitat.

On September 10, 2014, NMFS published a final rule to list 22 coral species under the ESA (79 FR 53851). Five of the 22 species occur in the Gulf region; however, because of protections including closed areas identified in Section 3.1, NMFS determined the continued authorization of the Gulf reef fish fishery is not likely to jeopardize the continued existence of any listed species. The proposed action relates to the harvest of an indigenous species in the Gulf, and the activity proposed in this amendment does not itself introduce non-indigenous species, and is not reasonably expected to facilitate the spread of such species through depressing the populations of native species. Additionally, it does not propose any activity, such as increased ballast water discharge from foreign vessels, which is associated with the introduction or spread of non-indigenous species.

4.3 Effects on the Economic Environment

The final decision made by the Secretary of Commerce relative to Reef Fish Amendment 28 (red snapper allocation) and the timing of that decision will determine the economic effects expected to result from this framework action. Amendment 28 would reallocate portions of the red snapper ACL to the recreational sector, i.e., increase the recreational red snapper allocation and decrease the commercial allocation by an equivalent amount. After the submission of Amendment 28 for Secretarial review, three plausible outcomes with respect to implementation could occur, each of which would affect the expected effects of this proposed amendment. First, the Secretary could approve Amendment 28 in early 2016, making implementation in 2016 possible. Second, Amendment 28 could receive final approval late in 2016, making

implementation in 2016 impossible. Finally, the Secretary could disapprove and not implement Amendment 28. The following discussion of the expected economic effects of the alternatives in this proposed amendment will be discussed within the context of these three outcomes with respect to final action on Amendment 28.

Under **Alternative 1** (no action), if Amendment 28 is not approved by the Secretary of Commerce or if it is approved later in 2016 and scheduled for implementation in 2017, recreational anglers would continue to receive 49 percent of the red snapper quota and commercial RS-IFQ shareholders would receive the totality of their 2016 red snapper allocation. Therefore, **Alternative 1** would not be expected to result in any economic effects because it would not affect the harvests and customary uses of red snapper by the commercial or recreational sectors.

If Amendment 28 is approved sufficiently early in 2016 for implementation in 2016, **Alternative 1** would not allow the expected effects of the reallocation of red snapper between the sectors to occur in 2016. Because commercial RS-IFQ shareholders would have already received the totality of their allocation, any increase in the recreational red snapper allocation and associated potential economic benefits would be postponed to the following year (2017). Under this scenario, **Alternative 1** would be expected to result in indirect economic effects because it would delay the potential economic benefits to the recreational sector and costs to the commercial sector expected to result from reallocation. By delaying the Council's preferred reallocation of red snapper resource, **Alternative 1** would be expected to result in indirect adverse economic effects to the recreational sector because it would not allow the potential benefits of an increase in the recreational red snapper quota through reallocation to be realized. Conversely, **Alternative 1** would be expected to result in indirect economic benefits to the commercial sector because it would shield the sector from a decrease in the commercial red snapper quota for 2016. The economic effects expected to result from the reallocation of red snapper between the sectors are discussed in Amendment 28.

If Amendment 28 is approved and scheduled for implementation in 2016, **Alternative 2** would allow the Council's preferred reallocation to be established in 2016. Although it would allow potential benefits and costs expected to result from Amendment 28 to materialize in 2016, **Alternative 2** is not expected to result in additional economic effects under this scenario. The potential benefits to the recreational sector and costs to the commercial sector of a reallocation of the red snapper quota between the sectors are discussed in Amendment 28.

If Amendment 28 is not approved by the Secretary of Commerce or if it is approved later in 2016 and scheduled for implementation in 2017, the commercial quota withheld from distribution would be returned to RS-IFQ shareholders in 2016. Under this scenario, **Alternative 2** would be expected to result in direct economic effects stemming from potential modifications to customary fishing and business practices and from the uncertainty that may arise from the timeline for returning withheld portions of the commercial quota. The retention and subsequent return to RS-IFQ participants of a portion of their annual RS-IFQ allocation may preclude some RS-IFQ participants, particularly those with limited RS-IFQ shares, from harvesting red snapper during periods of high demand, e.g., lent, thereby resulting in revenue losses. RS-IFQ participants planning to sell their annual allocation at a specific date could be precluded from completing the

transaction, potentially resulting in economic losses. Although these economic effects cannot be quantified, it expected that the longer RS-IFQ annual allocations are retained by NMFS, the greater these effects are expected to be.

4.4 Effects on the Social Environment

Amendment 28 would reallocate a portion of the red snapper ACL from the commercial sector to the recreational sector. The social effects expected to result from this framework action relate to the final decision to implement Amendment 28 and the timing of that decision under three scenarios, as discussed in Section 4.3.

If Amendment 28 is not approved by the Secretary of Commerce or if it is approved later in 2016 to be implemented in 2017, recreational anglers would continue to receive 49% of the red snapper ACL and commercial RS-IFQ shareholders would receive the totality of their 2016 red snapper allocation, for 2016. Thus, no additional effects would be expected to result from **Alternative 1**, as it would not affect the harvest and customary uses of red snapper by the commercial and recreational sectors.

If Amendment 28 is approved in early 2016 and scheduled for implementation in 2016, **Alternative 1** would not allow the reallocation of red snapper between the sectors to occur in 2016 because commercial RS-IFQ shareholders would have already received the totality of the year's allocation at the beginning of 2016. Thus, any increase in the recreational red snapper ACL, and attending benefits to the recreational sector would be postponed, as would the decrease to the commercial red snapper ACL, and attending negative impacts to the commercial sector expected to result from a reallocation. Under this scenario, **Alternative 1** would be expected to result in indirect negative effects by delaying the potential benefits to the recreational sector. Conversely, **Alternative 1** would be expected to result in indirect positive benefits to the commercial sector because it would prevent the decrease in the commercial ACL from occurring in 2016. The social benefits and negative impacts expected to result from the reallocation of red snapper between the sectors are discussed in Amendment 28.

If Amendment 28 is approved and scheduled for implementation in 2016, **Alternative 2** would allow the Council's decision on reallocation to be established in 2016. Although it would allow the potential benefits and negative impacts expected to result from Amendment 28 to occur in 2016, **Alternative 2** is not expected to result in additional social effects under this scenario, beyond the potential benefits to the recreational sector and negative impacts to the commercial sector as discussed in Amendment 28.

If Amendment 28 is not approved by the Secretary of Commerce or if it is approved later in 2016 and scheduled for implementation in 2017, the commercial quota withheld from distribution would be returned to RS-IFQ shareholders in 2016. Under this scenario, **Alternative 2** would be expected to result in direct negative social effects stemming from changes to customary fishing and business practices and from the uncertainty that may arise from the timeline for returning withheld portions of the commercial ACL. The retention and subsequent return to RS-IFQ

shareholders a portion of the annual RS-IFQ allocation may affect RS-IFQ participants, particularly those with limited RS-IFQ shares, by changing when, and potentially from whom, they are able to obtain red snapper allocation. RS-IFQ participants planning to sell their annual allocation at a specific date could be precluded from completing the transaction, affecting the intended recipient's access to that allocation, as well. Although these effects cannot be quantified, it is expected that the longer RS-IFQ annual allocation is retained, the greater these effects would be.

4.4.1 Environmental Justice Considerations

Executive Order 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. The main focus of Executive Order 12898 is to consider "the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories…" This executive order is generally referred to as environmental justice (EJ).

Commercial red snapper fishermen and associated businesses and communities along the coast are likely to be impacted by this proposed action. However, information on race, ethnicity, and income status for groups at the different participation levels and roles is not available. To identify potential areas of EJ concern, this analysis uses a suite of indices created to examine the social vulnerability of coastal communities (Jepson and Colburn 2013). The three indices are poverty, population composition, and personal disruptions. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community's vulnerability. Indicators such as increased poverty rates for different groups, more single female-headed households and households with children under the age of five, disruptions such as higher separation rates, higher crime rates, and unemployment all are signs of populations experiencing vulnerabilities. Communities that exceed the threshold for one or more of the indices would be expected to exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change. As noted in Section 4.4, additional social effects are not expected from this action beyond the effects discussed in Amendment 28, as this action enables the implementation of the action taken in Amendment 28 to occur in 2016.

The commercial communities most engaged and reliant on red snapper fishing are identified in Figure 3.4.5, and Figure 4.4.1 provides each community's score for the three social vulnerability indices. The communities of Apalachicola and Panama City, Florida; Golden Meadow, Grand Isle, and Houma, Louisiana; Bayou La Batre, Alabama; Pascagoula, Mississippi; and Freeport, Galveston, and Houston, Texas exceed the threshold of ½ standard deviation above the mean for at least one of the social vulnerability indices (Figure 4.4.1). It would be expected that these communities may exhibit vulnerabilities to social or economic disruption because of regulatory change, and would be the communities most likely subject to EJ concerns, as described in Amendment 28. Those communities that exhibit several index scores exceeding the threshold

would be the most vulnerable. These include Apalachicola, Florida; Golden Meadow, Louisiana; Bayou La Batre, Alabama; Pascagoula, Mississippi; and Freeport, Galveston, and Houston, Texas. Five communities exceed the threshold of ½ standard deviation for all three indices (Bayou La Batre, Alabama; Pascagoula, Mississippi; and Freeport, Galveston, and Houston, Texas). Social effects resulting from action taken in this plan amendment are likely to be greatest in these communities.

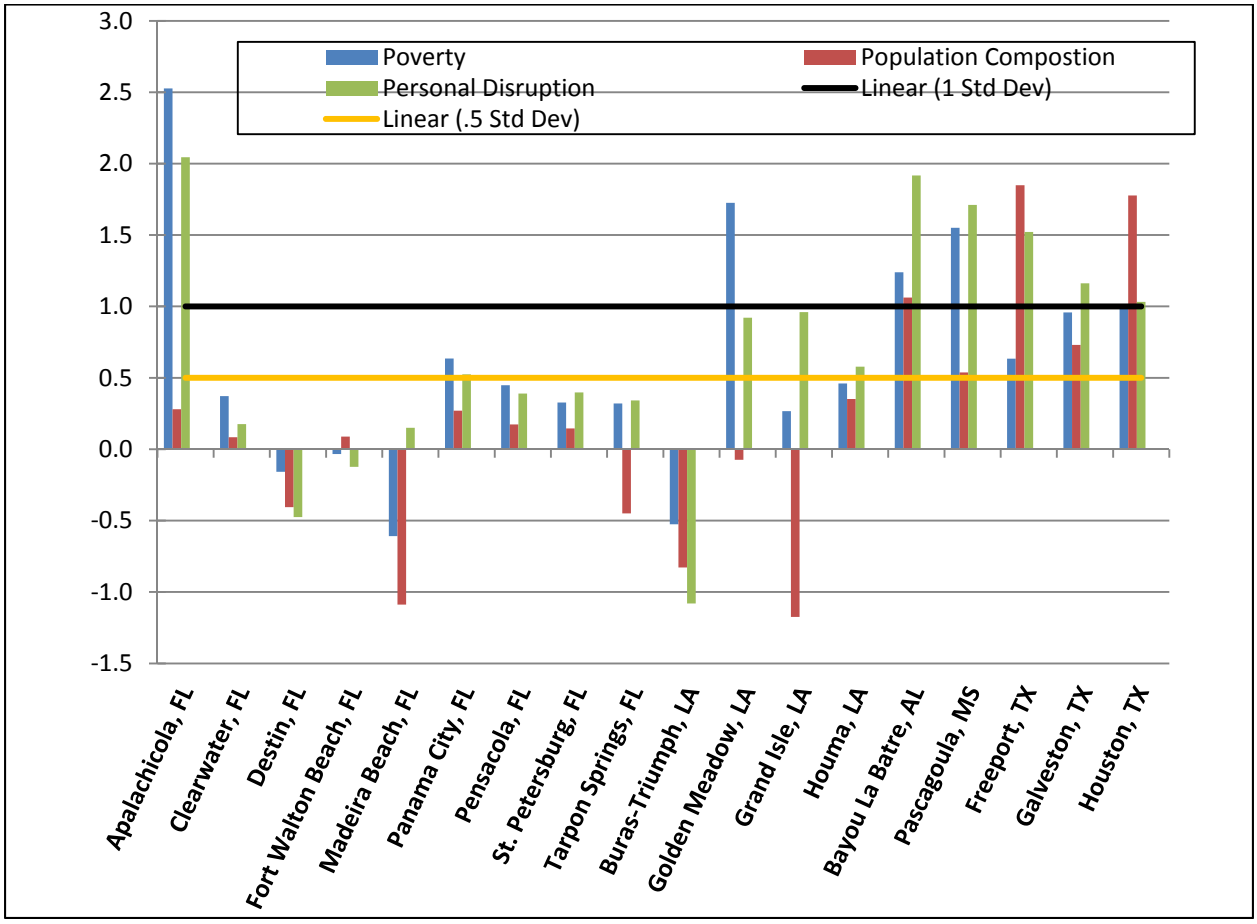

Figure 4.4.1.1. Social vulnerability indices for red snapper commercial fishing communities Source: Southeast Regional Office, social indicators database (2012).

Recreational red snapper fishermen and associated businesses and communities along the coast are expected to benefit from this proposed action. Thus, no EJ concerns are expected for participants in the recreational sector. Figure 4.4.1.2 provides the scores of the social vulnerability indices for the top recreational fishing communities identified in Figure 3.4.6. Communities that exceed the threshold for one or more indices would be expected to exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change, and greater vulnerability is suggested by exceeding the thresholds for multiple indices. However, regulatory change that would impact recreational participants in these communities is not expected.

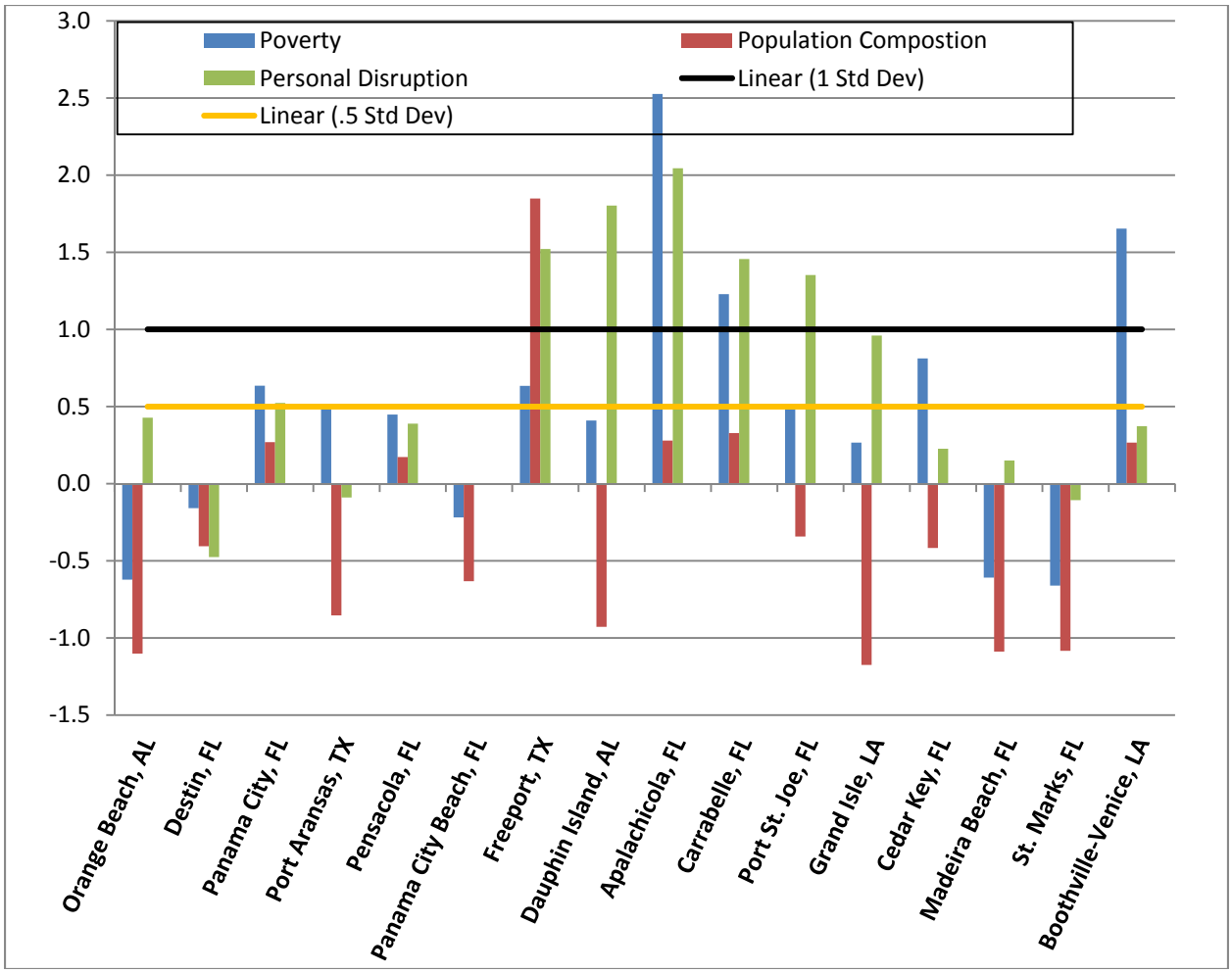

Figure 4.4.1.2. Social vulnerability indices for recreational fishing communities.
Source: Southeast Regional Office, social indicators database (2012).

4.5 Effects on the Administrative Environment

The withholding of commercial red snapper allocation would have direct effects on the administrative environment through additional rulemaking. Because **Alternative 1**, the no-action alternative, would not require rulemaking, it would have no effect on the administrative environment. The act of withholding a portion of the 2016 red snapper commercial quota, **Alternative 2**, is a one-time event, and thus these alternatives would have an equivalent burden to this environment through the minor direct administrative impacts associated with the rulemaking.

Although **Alternative 2** would increase the administrative burden, the effects are likely minimal. The National Marine Fisheries Service (NMFS) currently has a program and system in place to issue, transfer, and monitor Individual Fishing Quotas. Therefore, any additional administrative burden would be in adding these new requirements to the existing NMFS program and not requiring the development of a new program.

4.6 Cumulative Effects Analysis

As directed by the National Environmental Protection Act (NEPA), federal agencies are mandated to assess not only the indirect and direct impacts, but cumulative impacts of actions as well. NEPA defines a cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 C.F.R. 1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect is when the combined effects are greater than the sum of the individual effects. Cumulative effects on the biophysical environment, socio-economic environment, and administrative environments have been analyzed in Amendment 28 (GMFMC 2015) and are hereby incorporated by reference. The cumulative effects resulting from withholding part of the commercial quota (**Alternative 2**) should not have any additional cumulative effects to the physical and biological environments beyond those already addressed in Amendment 28. The cumulative effects from this action would be expected to result in direct economic and social effects stemming from potential modifications to customary fishing and business practices and from the uncertainty that may arise from the timeline for returning withheld portions of the commercial quota. Cumulative effects to the social environment from this action are not expected to result in additional social effects beyond the potential benefits to the recreational sector and negative impacts to the commercial sector as discussed in Amendment 28. Either the retention or subsequent return of shares to RS-IFQ participants may preclude some RS-IFQ participants, particularly those with limited RS-IFQ shares, from harvesting red snapper during periods of high demand, thereby resulting in revenue losses. RS-IFQ participants planning to sell their annual allocation at a specific date could be precluded from completing the transaction, potentially resulting in economic losses. Although these economic effects cannot be quantified, it expected that the longer RS-IFQ annual allocations are retained by NMFS, the greater these effects are expected to be.

CHAPTER 5. REGULATORY IMPACT REVIEW

[To be completed after the Council takes Final Action]

CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS

[To be completed after the Council takes Final Action]

CHAPTER 7. LIST OF PREPARERS AND AGENCIES CONSULTED

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LIST OF AGENCIES CONSULTED

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APPENDIX A. OTHER APPLICABLE LAW

The Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.) provides the authority for management of stocks included in fishery management plans in federal waters of the exclusive economic zone. However, management decision-making is also affected by a number of other federal statutes designed to protect the biological and human components of U.S. fisheries, as well as the ecosystems that support those fisheries. Major laws affecting federal fishery management decision-making are summarized below.

Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Under the Act, the National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the Federal Register and to solicit, consider, and respond to public comment on those rules before they are finalized. The Act also establishes a 30-day waiting period from the time a final rule is published until it takes effect. NMFS can waive this waiting period under certain circumstances.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state's coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NOAA regulations at 15 C.F.R. part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state's coastal zone, NMFS is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

Upon submission to the Secretary, NMFS will determine if this plan amendment is consistent with the Coastal Zone Management programs of the states of Alabama, Florida, Louisiana, Mississippi, and Texas to the maximum extent possible. Their determination will then be submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs for these states.

Data Quality Act

The Data Quality Act (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

Specifically, the Act directs the Office of Management and Budget to issue government wide guidelines that "provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies." Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: (1) ensure information quality and develop a pre-dissemination review process; (2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and (3) report periodically to Office of Management and Budget on the number and nature of complaints received.

Scientific information and data are key components of FMPs and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Fishery Conservation and Management Act. To be consistent with the Act, FMPs and amendments must be based on the best information available. They should also properly reference all supporting materials and data, and be reviewed by technically competent individuals. With respect to original data generated for FMPs and amendments, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended, (16 U.S.C. Section 1531 et seq.) requires federal agencies use their authorities to conserve endangered and threatened species. The ESA requires NMFS, when proposing an action for managed stocks that "may affect" critical habitat or endangered or threatened species, to consult with the appropriate administrative agency (itself for most marine species, the U.S. Fish and Wildlife Service for all remaining species) to determine the potential impacts of the proposed action. Consultations are concluded informally when proposed actions may affect but are "not likely to adversely affect" endangered or threatened species or designated critical habitat. Formal consultations, including a biological opinion, are required when proposed actions may affect and are "likely to adversely affect" endangered or threatened species or adversely modify designated critical habitat. If jeopardy or adverse modification is found, the consulting agency is required to suggest reasonable and prudent alternatives. NMFS, as part of the Secretarial review process, will make a determination regarding the potential impacts of the proposed actions.

Fish and Wildlife Coordination Act

Fish and Wildlife Coordination Act of 1934 (16 U.S.C. 661-667e) provides the basic authority for the Fish and Wildlife Service's involvement in evaluating impacts to fish and wildlife from proposed water resource development projects. It also requires Federal agencies that construct, license or permit water resource development projects to first consult with the Service (and the National Marine Fisheries Service in some instances) and State fish and wildlife agency regarding the impacts on fish and wildlife resources and measures to mitigate these impacts.

The fishery management actions in the Gulf of Mexico are not likely to affect wildlife resources pertaining to water resource development as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, (Public Law 89-665; 16 U.S.C. 470 *et seq.*) is intended to preserve historical and archaeological sites in the United States of America. Section 106 of the NHPA requires federal agencies to evaluate the impact of all federally funded or permitted projects for sites on listed on, or eligible for listing on, the National Register of Historic Places and aims to minimize damage to such places.

Typically, fishery management actions in the Gulf of Mexico are not likely to affect historic places with exception of the *U.S.S. Hatteras*, located in federal waters off Texas, which is listed in the National Register of Historic Places. The proposed actions are not likely to increase fishing activity above previous years. Thus, no additional impacts to the *U.S.S. Hatteras* would be expected.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas, and on the importing of marine mammals and marine mammal products into the United States. Under the MMPA, the Secretary of Commerce (authority delegated to NMFS) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea and marine otters, polar bears, manatees, and dugongs.

Part of the responsibility that NMFS has under the MMPA involves monitoring populations of marine mammals to make sure that they stay at optimum levels. If a population falls below its optimum level, it is designated as "depleted," and a conservation plan is developed to guide research and management actions to restore the population to healthy levels.

In 1994, Congress amended the MMPA, to govern the taking of marine mammals incidental to commercial fishing operations. This amendment required the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction, development and implementation of take-reduction plans for stocks that may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fishing activities, and studies of pinniped-fishing activity interactions.

Under section 118 of the MMPA, NMFS must publish, at least annually, a List of Fisheries that places all U.S. commercial fishing activities into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishing activity. The categorization of a fishing activity in the List of Fisheries determines whether participants in that fishing activity may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703) protects migratory birds. The responsibilities of Federal agencies to protect migratory birds are set forth in Executive Order 13186. US Fish and Wildlife Service is the lead agency for migratory birds. The birds protected under this statute are many of our most common species, as well as birds listed as threatened or endangered. A memorandum of understanding (MOU) between NMFS and U.S. Fish and Wildlife Service (FWS), as required by Executive Order 13186 (66 FR 3853, January 17, 2001), is to promote the conservation of migratory bird populations. This MOU focuses on avoiding, or where impacts cannot be avoided, minimizing to the extent practicable, adverse impacts on migratory birds and strengthening migratory bird conservation through enhanced collaboration between NMFS and FWS by identifying general responsibilities of both agencies and specific areas of cooperation. Given NMFS' focus on marine resources and ecosystems, this MOU places an emphasis on seabirds, but does not exclude other taxonomic groups of migratory birds.

Typically, fishery management actions in the Gulf of Mexico are not likely to affect migratory birds. The proposed actions are not likely to change the way in which the fishery is prosecuted. Thus, no additional impacts are reasonably expected.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) regulates the collection of public information by federal agencies to ensure the public is not overburdened with information requests, the federal government's information collection procedures are efficient, and federal agencies adhere to appropriate rules governing the confidentiality of such information. The Act requires NMFS to obtain approval from the Office of Management and Budget before requesting most types of fishing activity information from the public. None of the alternatives in this amendment are expected to create additional paperwork burdens.

Prime Farmlands Protection and Policy Act

The Farmland Protection and Policy Act of 1981 (7 U.S.C. 4201) was enacted to minimize the loss of prime farmland and unique farmlands as a result of Federal actions by converting these lands to nonagricultural uses. It assures that federal programs are compatible with state and local governments, and private programs and policies to protect farmland.

The fishery management actions in the Gulf of Mexico are not likely to affect farmlands as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

National Wild and Scenic Rivers System

The National Wild and Scenic Rivers System of 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) preserves certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act safeguards the special character of these rivers, while also recognizing the potential for their appropriate use and

development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

The fishery management actions in the Gulf of Mexico are not likely to affect wetland habitats as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

North American Wetlands Conservation Act

The North American Wetlands Conservation Act of 1989 (Public Law 101-233) established a wetlands habitat program, administered by the United States Fish and Wildlife Service, to protect and manage wetland habitats for migratory birds and other wetland wildlife in the United States, Mexico, and Canada.

The fishery management actions in the Gulf of Mexico are not likely to affect wetland habitats as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

Executive Orders (E.O.)

E.O. 12630: Takings

The E.O. on Government Actions and Interference with Constitutionally Protected Property Rights that became effective March 18, 1988, requires each federal agency prepare a Takings Implication Assessment for any of its administrative, regulatory, and legislative policies and actions that affect, or may affect, the use of any real or personal property. Clearance of a regulatory action must include a takings statement and, if appropriate, a Takings Implication Assessment. The NOAA Office of General Counsel will determine whether a Taking Implication Assessment is necessary for this amendment.

E.O. 12866: Regulatory Planning and Review

E.O. 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all regulatory actions that either implement a new fishery management plan or significantly amend an existing plan. RIRs provide a comprehensive analysis of the costs and benefits to society of proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Analysis. A regulation is significant if it: 1) Has an annual effect on the economy of $100 million or more or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments and communities; 2) creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency; 3) materially alters the budgetary

impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or 4) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

E.O. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

This E.O mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions.

E.O. 12962: Recreational Fisheries

This E.O. requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council (NRFCC) responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The NRFCC also is responsible for developing, in cooperation with federal agencies, States and Tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

E.O. 13089: Coral Reef Protection

The E.O. on Coral Reef Protection requires federal agencies whose actions may affect U.S. coral reef ecosystems to identify those actions, utilize their programs and authorities to protect and enhance the conditions of such ecosystems, and, to the extent permitted by law, ensure actions that they authorize, fund, or carry out do not degrade the condition of that ecosystem. By definition, a U.S. coral reef ecosystem means those species, habitats, and other national resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., federal, state, territorial, or commonwealth waters).

Regulations are already in place to limit or reduce habitat impacts within the Flower Garden Banks National Marine Sanctuary. Additionally, NMFS approved and implemented Generic Amendment 3 for Essential Fish Habitat (GMFMC 2005), which established additional habitat

areas of particular concern (HAPCs) and gear restrictions to protect corals throughout the Gulf of Mexico. There are no implications to coral reefs by the actions proposed in this amendment.

E.O. 13132: Federalism

The E.O. on Federalism requires agencies in formulating and implementing policies, to be guided by the fundamental Federalism principles. The Order serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This Order is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate state, tribes and local entities (international too).

In Amendment 30B, no Federalism issues were identified relative to the action to establish the 30B permit provision. Therefore, consultation with state officials under Executive Order 12612 was not necessary. In Council discussions regarding this framework action, the question of whether the 30B permit provision conflicts with state regulations has been discussed (see Section 1.1), but no determination was made that this constitutes a Federalism issue. Consequently, consultation with state officials under Executive Order 12612 remains unnecessary.

E.O. 13158: Marine Protected Areas

This E.O. requires federal agencies to consider whether their proposed action(s) will affect any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural or cultural resource within the protected area. There are several marine protected areas, HAPCs, and gear-restricted areas in the eastern and northwestern Gulf. The existing areas are entirely within federal waters of the Gulf of Mexico. They do not affect any areas reserved by federal, state, territorial, tribal or local jurisdictions.

Essential Fish Habitat

The amended Magnuson-Stevens Fishery Conservation and Management Act included a new habitat conservation provision that requires each existing and any new FMPs to describe and identify essential fish habitat (EFH) for each federally managed species, minimize to the extent practicable impacts from fishing activities on EFH that are more than minimal and not temporary in nature, and identify other actions to encourage the conservation and enhancement of that EFH. To address these requirements the Council has, under separate action, approved an environmental impact statement (GMFMC 2004b) to address the new EFH requirements contained within the Act. Section 305(b)(2) requires federal agencies to obtain a consultation for any action that may adversely affect EFH.

These actions are not expected to change the way in which the fisheries are conducted in regard to the impact of the fisheries on the environment. The actions, considered in the context of the fisheries as a whole, will not have an adverse impact on EFH; therefore, an EFH consultation is not required.

For the reasons set out in the preamble, 50 CFR part 622 is proposed to be amended as follows:

PART 622--FISHERIES OF THE CARIBBEAN, GULF OF MEXICO, AND SOUTH ATLANTIC

1. The authority citation for part 622 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq*.

2. In § 622.39, add paragraphs (a)(1)(i)(B)(*1*) and (a)(1)(i)(B)(*2*) to read as follows:

§ 622.39 Quotas.

* * * * *

(a) * * *

(1) * * *

(i) *Commercial quota for red snapper*.

(B) For fishing year 2016--7.120 million lb (3.230 million kg), round weight.

(*1*) NMFS will withhold distribution of x.x percent of the 2016 IFQ allocation of red snapper commercial quota on January 1, 2016, totaling xx lb (xx kg), round weight, of the 2016 red snapper commercial quota specified in § 622.39(a)(1)(i)(B).

(*2*) As determined by NMFS, remaining 2016 IFQ

allocation of red snapper will be distributed to the current shareholders based on their current shares held as of the date of distribution.

* * * * *

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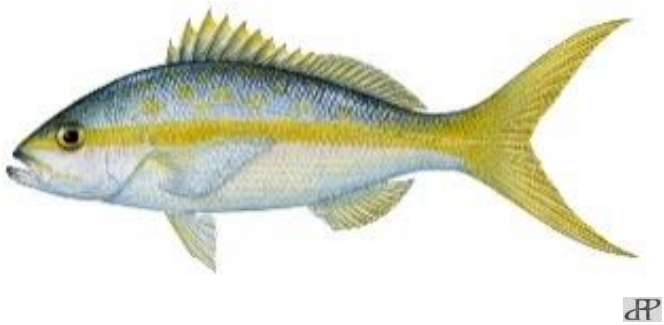
Tab B, No. 8
7/24/15

Modification to Gear Requirements for Yellowtail Snapper in the Gulf of Mexico



Draft Framework Action to the Fishery Management Plan for Reef Fish Resources in the Gulf of Mexico

August 2015

This is a publication of the Gulf of Mexico Fishery Management Council Pursuant to National Oceanic and Atmospheric Administration Award No. NA15NMF4410011.

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COVER SHEET

Name of Action

Draft Framework Action to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico to Modify Gear Restrictions for Yellowtail Snapper.

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CHAPTER 1. INTRODUCTION

1.1 Background

Currently, some commercial fishing regulations differ between the Gulf of Mexico (Gulf Council) and South Atlantic Fishery Management Council (South Atlantic Council) waters and in some cases, state and adjacent federal waters (i.e., the State of Florida). This makes it burdensome for commercial fishermen to abide by different regulations in the applicable areas, particularly the Florida Keys, where commercial fishermen can fish in multiple jurisdictions on a single trip (Figure 1.1.1).

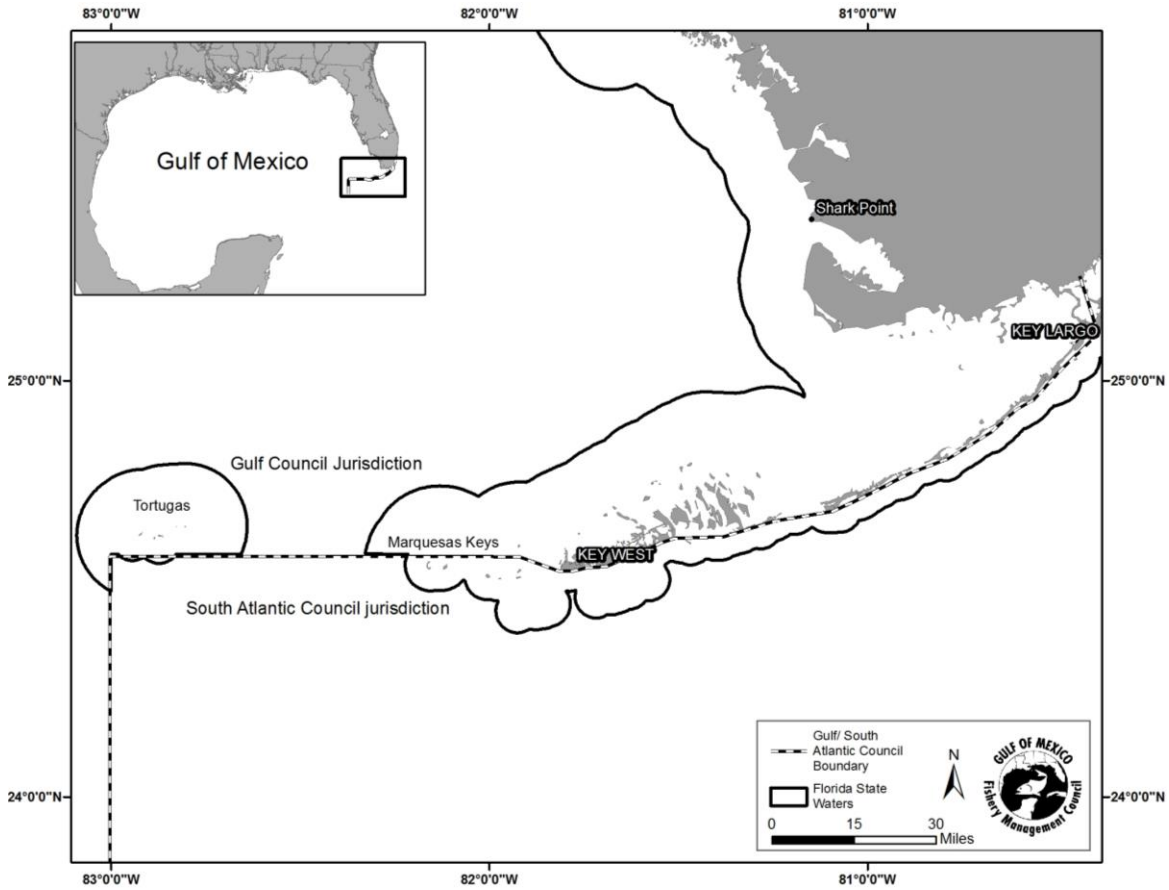

Figure 1.1.1. Inter-Council jurisdiction boundary in southern Florida, Florida Keys and Monroe County between the Gulf of Mexico and South Atlantic Councils. A full description of the inter-Council boundary can be found: 61 FR 32540, June 24, 1996, as amended at 63 FR 7075, February 12, 1998 or (CFR 600.105).

Commercial reef fish permit holders fishing for yellowtail snapper in the Gulf are currently required to use circle hooks when fishing with natural bait (50 CFR 622.41). These regulations differ from those in the South Atlantic Council's jurisdiction, where snapper-grouper permit holders are not required to use circle hooks when fishing for any species within the snapper-grouper complex south of 28° 0' North latitude. Both the Gulf Council's Reef Fish Fishery

Management Plan (FMP) and the South Atlantic Council's Snapper-Grouper FMP include yellowtail snapper, which are primarily caught in and around the southern half of Florida, particularly in the Florida Keys.

Commercial yellowtail snapper fishermen indicate that they use chum bags on the surface to encourage yellowtail snapper to school near the stern of the fishing vessel, and then use natural bait on small hooks to catch and land the fish. These commercial fishermen also indicate that their release tools allow them to release yellowtail snapper which have been caught with j-hooks more easily than those caught with circle hooks, resulting in decreased handling times for fish which are to be discarded. Decreased handling times due to quicker dehooking methods may result in an increase in the efficiency with which the commercial yellowtail snapper fishery is prosecuted.

Yellowtail Snapper

Yellowtail snapper are managed with a stock ACL. In the U.S., yellowtail snapper comprise a single stock. The South Atlantic and Gulf Council jurisdictions are combined for stock assessment purposes. In the Generic Annual Catch Limits and Accountability Measures Amendment (GMFMC 2011), the apportionment of the yellowtail snapper ABC between the Gulf and South Atlantic Councils was established based on the Florida Keys (Monroe County) jurisdictional boundary using 50% of the catch history from 1993-2008 and 50% of the catch history from 2006-2008. This formula resulted in an allocation of 75% of the ABC to the South Atlantic Council and 25% of the ABC to the Gulf Council for yellowtail snapper.

In 2012, the Florida Fish and Wildlife Research Institute (FWRI) conducted a yellowtail snapper benchmark stock assessment (SEDAR 27 2012). The assessment was conducted with a statistical catch-at-age model (ASAP2). Fishery-dependent data included commercial logbooks, MRFSS, and the headboat survey. Fishery-independent data came from the NMFS/University of Miami Reef Visual Census. Results from the assessment indicate that, as of 2010, the yellowtail snapper stock is neither overfished nor experiencing overfishing.

The yellowtail snapper stock straddles the jurisdictions of the Gulf and South Atlantic Councils. Therefore, the assessment was reviewed in October 2012 by a joint meeting of the South Atlantic Council's SSC and the Gulf Council's Standing and Special Reef Fish SSC. The SSCs thought that setting OFL at the equilibrium yield level for F_{MSY} would be a sustainable and risk neutral approach. Consequently, the SSC established OFL at the equilibrium MSY yield is 4.61 million pounds (mp) whole weight (ww) total removals (landings plus dead discards), or 4.51 mp ww in landings.

To set the ABC, the Gulf and South Atlantic Councils have separate ABC control rules for establishing the appropriate P* value (acceptable risk of overfishing). Using the South Atlantic ABC control rule resulted P* =0.40. Using tier 1 of the Gulf ABC control rule resulted in P* = 0.416. Since the results were very close, the joint SSC agreed to use P* = 0.40 to set the ABC. When this P* was applied to a probability distribution function prepared by FWRI, the resulting ABC was 4.13 mp ww total removals, or 4.05 mp ww in landings. When the ABC resultant

from SEDAR 27 was apportioned between the South Atlantic and Gulf jurisdictions, the resulting regional ABCs in terms of landings were:

South Atlantic: **3.0375 mp ww**
Gulf of Mexico: **1.0125 mp ww**

Because these ABCs are based on equilibrium yields, they do not fluctuate from year to year, but remain constant until adjusted by a future assessment. In the Gulf, the ACL is set equal to the ABC, and there are no established sector allocations. Table 1.1.1 shows the annual landings of yellowtail snapper from 1986 – 2013 by Council and fishing sector. Table 1.1.2 shows the annual percentages of landings by sector for yellowtail snapper from 1986 – 2013 by Council. Table 1.1.3 shows yellowtail snapper landings by statistical collection zone for each Council by sector for 2008-2013. Commercial landings are assigned to sub-region (Gulf of Mexico or South Atlantic) based on fisher-reported catch area. For example, landings reported north of U.S. 1 are considered to be within the Gulf of Mexico jurisdiction and south of U.S. 1 landings are considered to be within the South Atlantic jurisdiction. Headboats based from Texas to Gulf-based in Monroe County are within the Gulf of Mexico jurisdiction, and headboats from North Carolina to the Florida Keys are within the South Atlantic jurisdiction. Marine Recreational Fisheries Statistics Survey (MRFSS) data was post-stratified to break the Florida Keys out from the Gulf of Mexico landings. The MRFSS landings from the Florida Keys were re-assigned to the South Atlantic Council, because most legal sized yellowtail snapper are likely caught in South Atlantic waters (GMFMC ACL/AM Amendment 2011).

Table 1.1.1. Yellowtail snapper landings from 1986 through 2013 in the Gulf of Mexico and South Atlantic in pounds whole weight.

	Gulf of Mexico			South Atlantic			
Year	Commercial	Recreational	Gulf Total	Commercial	Recreational	SA Total	Grand Total
1986	506,144	7,622	513,766	612,676	776,238	1,388,914	1,902,680
1987	1,275,194	9,743	1,284,937	88,876	723,364	812,240	2,097,177
1988	638,412	9,460	647,872	774,164	1,103,823	1,877,987	2,525,859
1989	1,020,640	10,581	1,031,221	830,896	1,692,498	2,523,394	3,554,615
1990	906,233	11,532	917,765	849,380	1,342,553	2,191,933	3,109,698
1991	787,663	13,180	800,843	1,073,979	2,299,879	3,373,858	4,174,701
1992	831,013	36,986	867,999	1,024,653	1,067,445	2,092,098	2,960,097
1993	1,067,452	51015	1,118,467	1311367	1189637	2,501,004	3,619,471
1994	1344942	11762	1,356,704	860543	880763	1,741,306	3,098,010
1995	591074	3434	594,508	1265856	660358	1,926,214	2,520,722
1996	485120	2854	487,974	973815	554130	1,527,945	2,015,919
1997	218384	2008	220,392	1455496	702997	2,158,493	2,378,885
1998	341479	4965	346,444	1183074	487063	1,670,137	2,016,581
1999	601027	39260	640,287	1245345	288951	1,534,296	2,174,583
2000	388984	4781	393,765	1203154	395845	1,598,999	1,992,764
2001	246849	7045	253,894	1174008	328458	1,502,466	1,756,360
2002	341823	7782	349,605	1069057	407848	1,476,905	1,826,510
2003	463743	11472	475,215	948886	510314	1,459,200	1,934,415
2004	478221	17937	496,158	1002309	698058	1,700,367	2,196,525
2005	510437	31176	541,613	814899	576247	1,391,146	1,932,759
2006	542237	21477	563,714	694958	560320	1,255,278	1,818,992
2007	350079	19726	369,805	628608	786399	1,415,007	1,784,812
2008	460569	6056	466,625	910323	746313	1,656,636	2,123,261
2009	891925	19250	911,175	1085281	348536	1,433,817	2,344,992
2010	569275	8783	578,058	1126231	434259	1,560,490	2,138,548
2011	769730	25560	795,290	1125220	390998	1,516,218	2,311,508
2012	630984	5087	636,071	1439586	493409	1,932,995	2,569,066
2013	728387	6991	735,378	1305002	666026	1,971,028	2,706,406
Mean	642,429	14,554	656,984	1,002,773	754,026	1,756,799	2,413,783

Source: SERO ALS Database (commercial landings) and MRIP (recreational landings).

Table 1.1.2. Yellowtail snapper sector landings percentages from 1986 through 2013 in the Gulf of Mexico and South Atlantic.

	Gulf of Mexico		South Atlantic	
Year	% Comm	% Rec	% Comm	% Rec
1986	98.5%	1.5%	44.1%	55.9%
1987	99.2%	0.8%	10.9%	89.1%
1988	98.5%	1.5%	41.2%	58.8%
1989	99.0%	1.0%	32.9%	67.1%
1990	98.7%	1.3%	38.8%	61.2%
1991	98.4%	1.6%	31.8%	68.2%
1992	95.7%	4.3%	49.0%	51.0%
1993	95.4%	4.6%	52.4%	47.6%
1994	99.1%	0.9%	49.4%	50.6%
1995	99.4%	0.6%	65.7%	34.3%
1996	99.4%	0.6%	63.7%	36.3%
1997	99.1%	0.9%	67.4%	32.6%
1998	98.6%	1.4%	70.8%	29.2%
1999	93.9%	6.1%	81.2%	18.8%
2000	98.8%	1.2%	75.2%	24.8%
2001	97.2%	2.8%	78.1%	21.9%
2002	97.8%	2.2%	72.4%	27.6%
2003	97.6%	2.4%	65.0%	35.0%
2004	96.4%	3.6%	58.9%	41.1%
2005	94.2%	5.8%	58.6%	41.4%
2006	96.2%	3.8%	55.4%	44.6%
2007	94.7%	5.3%	44.4%	55.6%
2008	98.7%	1.3%	55.0%	45.0%
2009	97.9%	2.1%	75.7%	24.3%
2010	98.5%	1.5%	72.2%	27.8%
2011	96.8%	3.2%	74.2%	25.8%
2012	99.2%	0.8%	74.5%	25.5%
2013	99.0%	1.0%	66.2%	33.8%
Mean	97.7%	2.3%	58.0%	42.0%

Source: SERO ALS Database (commercial landings) and MRIP (recreational landings).

Table 1.1.3. Yellowtail snapper landings by statistical collection area for the Gulf of Mexico and South Atlantic Council jurisdictions. Landings are separated by sector and are displayed in pounds whole weight. Statistical collection zones for recreational landings as reported by the Florida Fish and Wildlife Conservation Commission (FWC) include the Northeast (Nassau to Brevard County), Southeast (Indian River to Dade County), the Florida Keys (Monroe County), Southwest (Collier to Levy County), and Northwest (Dixie to Escambia County). Statistical collection zones for commercial landings include the East (Nassau to Broward County), South (Dade and Monroe County), and West (Collier to Escambia County). Commercial data were aggregated in this way due to restrictions on data confidentiality.

Recreational Sector									
Council	Region	2008	2009	2010	2011	2012	2013	Mean	% of Mean
South Atlantic	NE	134	605	1,640	0	0	145	793	0.1%
	SE	581,279	520,470	333,846	210,358	286,013	623,573	478,532	33.8%
	K	1,583,584	570,257	623,266	497,448	623,304	2,017,435	925,702	65.3%
Gulf	WC	12,664	17,852	5,675	6,667	2,140	3,855	12,063	0.9%
	NW	0	0	0	0	0	0	0	0.0%
Commercial Sector									
Council	Region	2008	2009	2010	2011	2012	2013	Mean	% of Mean
South Atlantic	East	26,245	28,879	30,135	91,858	28,423	25,065	38,434	2.1%
Both	South	1,341,755	1,942,968	1,662,667	1,797,833	2,066,160	1,998,411	1,801,632	97.5%
Gulf	West	1,326	3,157	1,116	3,811	12,642	20,708	7,127	0.4%

Virtually all yellowtail snapper landed in the Gulf of Mexico are landed in Florida (> 99.9%, 2008-2013, SERO-ALS and MRIP databases). Recreational and commercial landings by statistical collection zone are shown in Figures 1.1.2 and 1.1.3, respectively.

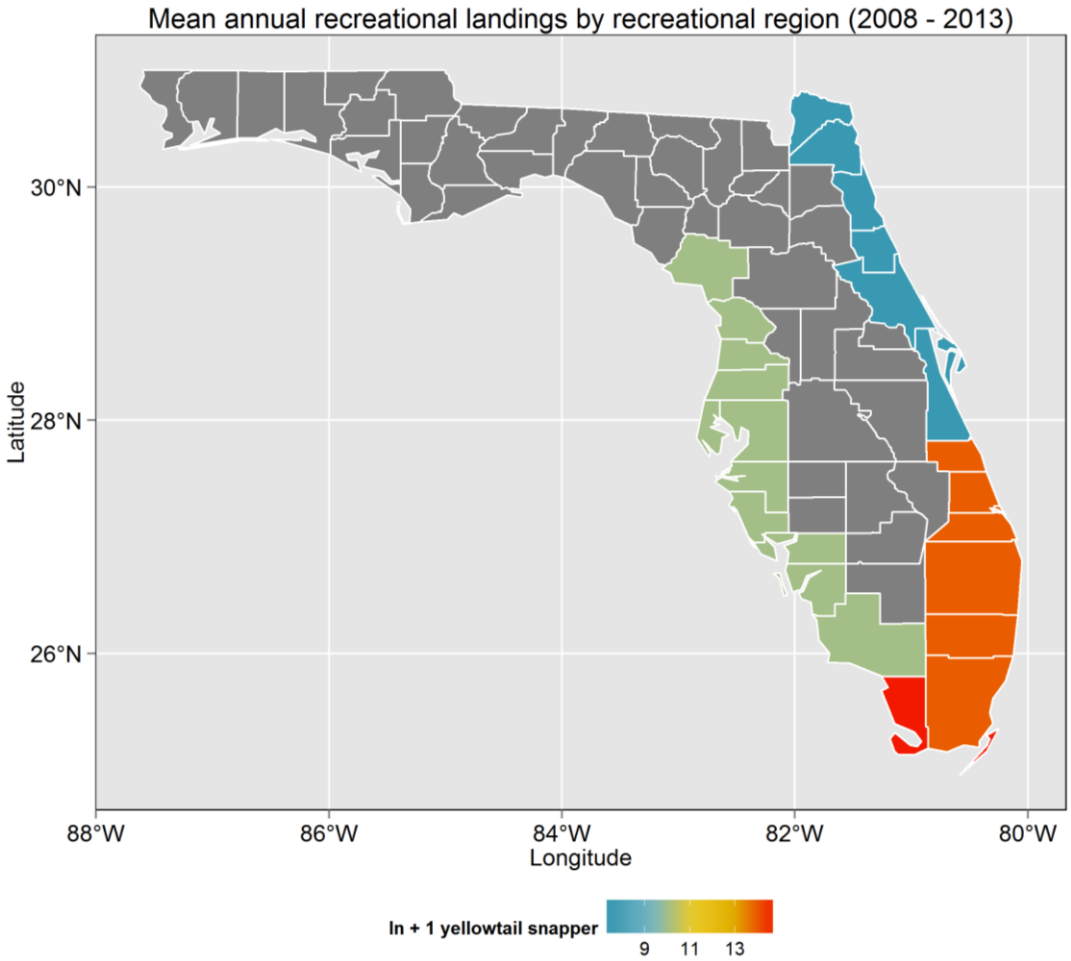

Figure 1.1.2. Mean annual recreational landings by statistical collection region for yellowtail snapper in Florida for 2008-2013. Landings are averaged across years and log-transformed for homogeneity. Blue colors indicate areas of low landings, red colors indicate areas with high landings, and counties shaded in gray have no landings.

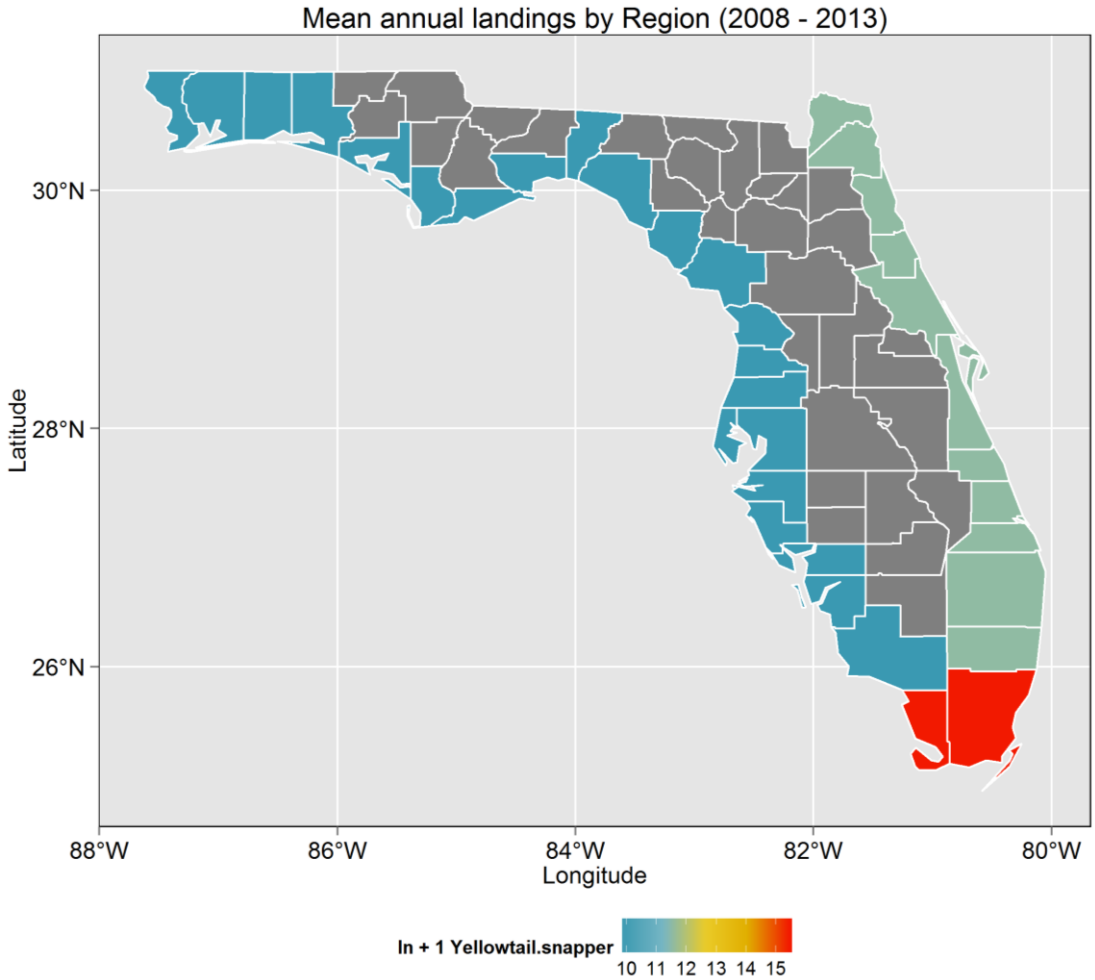

Figure 1.1.3. Mean annual commercial landings by region for yellowtail snapper in Florida for 2008-2013. Landings are averaged across years and log-transformed for homogeneity. Blue colors indicate areas of low landings, red colors indicate areas with high landings, and counties shaded in gray have no landings.

1.2 Description of the Fishery

Yellowtail snapper in the southeastern United States are harvested by both recreational and commercial fishermen, with all landings coming almost exclusively from waters adjacent to the State of Florida. Very small amounts of yellowtail snapper are landed in Texas. Landings of yellowtail snapper in the Gulf are dominated by the commercial sector, which lands, on average, over 97% of the yellowtail snapper caught in the Gulf (Table 1.1.2).

Commercial fishermen in the Gulf harvest yellowtail snapper exclusively off the southwestern coast of Florida and west and northwest of the Florida Keys. The most common fishing practice is hook-and-line fishing behind the vessel, using a chum slick (a large amount of natural chum drifting away from the stern of the fishing vessel). The chum slick draws the fish up to the surface, where they feed directly behind the stern of the fishing vessel. Fishermen use small

hooks with natural bait and "cane poles" (rods with ~15' of monofilament fishing line tied to the tip) or spinning reels to catch yellowtail snapper. Landed fish are then quickly dehooked and dropped into a hold with ice. The operation is similar in the South Atlantic, where circle hooks are not required to land reef fish when using natural bait. Fishermen in the South Atlantic have developed special dehooking boxes to quickly remove j-hooks from caught yellowtail snapper. Since a majority of the fishing occurs at the stern of the vessel in sight of the schooling fish, fishermen can proactively prevent unwanted fish from taking a bait. Further, anecdotal information suggests that since the fish are feeding at the surface and cannot take any or very little line off a fishing reel after being hooked, the probability of a fish being hooked anywhere besides the mouth is minimal.

Recreational fishermen in the Gulf also harvest yellowtail snapper almost exclusively off the southwestern coast of Florida and in the Florida Keys. Common fishing practices include hook-and-line fishing with natural bait or jigs and, to a lesser extent, spearfishing. Recreational fishermen are permitted to retain 10 yellowtail snapper per person per day, with a minimum size limit of 12" total length (TL). Contrary to commercial fishing practices, the multi-species nature of most recreational fishing trips, combined with the aforementioned bag limit, reduces the necessity of increasing the efficiency of recreational fishing effort for yellowtail snapper.

Recreational anglers may also create chum slicks when fishing for reef fish species over structure (e.g., artificial and natural reefs). The paramount difference in angler behavior is that commercial fishermen typically actively target only certain species for a variety of reasons (e.g., fishing seasons, market value, local abundance), while recreational fishermen typically fish for many species when fishing over bottom structure. This results in the increased probability of a recreational angler catching and retaining species other than yellowtail snapper, which could have adverse effects on those other species if hooks other than circle hooks are permitted for use. Further, if a recreational angler lets a yellowtail snapper "run" or swim with the bait in its mouth before reeling it in, there may a greater likelihood of a j-hook resulting in gut hooking and, by association, increased release mortality. Therefore, modifications to the recreational gear requirements are not currently being considered in this document.

1.3 History of Management

Yellowtail snapper were included in the 33 species (15 snappers, 15 groupers, and 3 sea basses) that comprised the original fishery management unit for the Reef Fish FMP (GMFMC 1984). The first reef fish regulations, implemented in November 1984, included 1) prohibitions on the use of fish traps, roller trawls, and powerheads within an inshore stressed area; 2) construction requirements, maximum size, and numerical limits for fish traps; and 3) permit requirements for fish trap operators. In addition, reporting requirements were implemented for fish traps, commercial vessel owners and operators, and dealers and processors.

Amendment 1 (GMFMC 1989) the Reef Fish Fishery Management Plan, implemented in 1990, implemented a 12 inch TL minimum size limit on yellowtail snapper. A 10 snapper aggregate recreational bag limit was also created, which included yellowtail snapper. The stressed area was expanded to run along the entire Gulf coastline, and a commercial vessel permit was established for the harvest and sale of reef fish. Amendment 1 also established an optimum yield

goal for all reef fish of 20% spawning stock biomass per recruit (SSBR) relative to the SSBR that would occur with no fishing, and an overfished stock was defined as a stock biomass below 20% SSBR. Overfishing was defined, for a stock that is not overfished, as fishing at a rate that would not allow harvest of optimum yield on a continuing basis, and for a stock that is overfished, as fishing at a rate that is not consistent with rebuilding the stock to 20% SSBR. The spawning stock biomass per recruit terminology was later replaced with spawning potential ratio (SPR).

Amendment 11 (GMFMC 1995a) was partially approved by NMFS and implemented in January 1996. It established a permit requirement for reef fish charter vessels and headboats.

Amendment 12 (GMFMC 1995b) was submitted in December 1995 and implemented in January 1997. It established an exclusive economic zone (EEZ) aggregate recreational daily bag (possession) limit of 20-reef fish per angler for all reef fish not having a bag limit. Yellowtail snapper remained in the separate 10-snapper aggregate bag limit for snappers other than red, lane and vermilion.

A **regulatory amendment** in August 1999 (with its associated EA, RIR, and IRFA) (GMFMC 1999a) closed two areas (i.e., created two marine reserves), known as Steamboat Lumps and Madison-Swanson (104 and 115 square nautical miles respectively), and implemented year-round to all fishing under the jurisdiction of the Council with a four-year sunset.

Amendment 23 (GMFMC 2004a), established the MFMT as the fishing rate associated with F_{MSY}, and the MSST as a biomass level equal to (1-M)*B_{MSY} (or B_{MSY} proxy), where M is the natural morality rate, estimated to be 0.25.

Amendment 27 (GMFMC 2007b), implemented in June 2008, required the use of non stainless steel circle hooks when using natural baits to fish for Gulf reef fish, and required the use of venting tools and dehooking devices when participating in the commercial or recreational reef fish fisheries.

The **Generic Annual Catch Limits/Accountability Measures Amendment** (GMFMC 2011a), submitted in September 2011, established annual catch limits, optional annual catch targets, and accountability measures for all stocks under Council management that required such parameters and did not already have them. For yellowtail snapper, the amendment established an apportionment of ABC, with 75% apportioned to the South Atlantic jurisdiction and 25% to the Gulf of Mexico jurisdiction. For the Gulf of Mexico apportionment, the amendment established a yellowtail snapper stock ACL of 0.725 million pounds whole weight, and a stock ACT of 0.645 million pounds whole weight.

The accountability measures for vermilion snapper and yellowtail snapper differ slightly. If the ACL for yellowtail snapper is exceeded in a fishing year, then in the following year, if the ACL is reached or projected to be reached, the Assistant Administrator for Fisheries shall file a notification to close the appropriate sector(s) for the remainder of the year. Since the yellowtail snapper stock ACL is not allocated by sector, all fishing for the species would be closed under the accountability measure.

A **framework action**, effective September 3, 2013, increased the Gulf yellowtail snapper Annual Catch Limit from 725,000 lb round weight to 901,125 lb round weight, and removes the requirement to have onboard and use venting tools when releasing reef fish.

1.4 Purpose and Need

The purpose for this framework action is to address inconsistencies between Gulf of Mexico and South Atlantic Fishery Management Council circle hook requirements for yellowtail snapper commercial fishing in Gulf of Mexico waters, and to increase the operational efficiency of the commercial yellowtail snapper fishery.

The need for this framework action is achieve optimum yield and to decrease the burden of compliance with differing regulations based on separate regulatory agencies across adjacent bodies of water (i.e., Gulf of Mexico, South Atlantic, and State of Florida waters).

CHAPTER 2. DRAFT MANAGEMENT ALTERNATIVES

2.1 Action 1. Changes to Hook Requirements for Commercially Harvested Yellowtail Snapper in the Gulf of Mexico

Alternative 1: No action – Do not change the current hook requirements for commercially harvested yellowtail snapper in the Gulf of Mexico. Circle hooks will remain required when fishing with natural bait yellowtail snapper in the exclusive economic zone of the Gulf of Mexico.

Alternative 2: Remove the requirement to use circle hooks when commercial fishing with natural bait for yellowtail snapper throughout the exclusive economic zone of the Gulf of Mexico.

Alternative 3: Remove the requirement to use circle hooks when commercial fishing with natural bait for yellowtail snapper south of 28° 0' North latitude in the exclusive economic zone of the Gulf of Mexico.

Alternative 4: Remove the requirement to use circle hooks when commercial fishing with natural bait for yellowtail snapper south of 25° 23' North latitude on the west coast of Monroe County, Florida south to the Gulf Council jurisdictional boundary.

Discussion:

In 2008, the Gulf Council adopted a preferred management alternative in Amendment 27 to the Reef Fish Fishery Management Plan (GMFMC 2008), which required recreational anglers fishing in federal waters to use non–stainless steel circle hooks when catching reef fishes with natural bait (50 CFR 622.41). Circle hooks are defined by regulation as "a fishing hook designed and manufactured so that the point is turned perpendicularly back to the shank to form a generally circular, or oval, shape." Florida matched federal regulations, with the added specification that a circle hook must have zero degrees of offset (Florida Administrative Code §68B-14.005).

In 2010, the South Atlantic Council approved Amendment 17A to the snapper grouper Fishery Management Plan (SAFMC 2010a), which required recreational and commercial anglers fishing in federal waters to use non-stainless steel circle hooks (offset or non-offset) when fishing for all species in the snapper grouper complex when using hook-and-line-gear with natural baits in waters north of 28° 0' North latitude. This requirement was effective March 3, 2011.

Multiple reef fish species managed by the Gulf Council occur in waters south of 28° 0' North latitude. A recent stock assessment on red snapper recognized and incorporated reduced discard mortality as a result of the requirement to use circle hooks when fishing with natural bait

(SEDAR 31 2013). Sauls and Ayala (2012) observed red snapper caught with circle hooks and j-hooks within the recreational sector and reported a 63.5% reduction in potentially lethal hooking injuries for red snapper caught with circle hooks (6.3% potentially lethal injuries, versus 17.1% with j-hooks) (SEDAR 31 2013). SEDAR 33 (2014a, b) examined the effects of hook type on gag and greater amberjack and determined that the generally low level of recreational discard mortality for both species (both prior to and after the 2008 circle hook requirement) negated the realization of benefits from using circle hooks (Sauls and Ayala 2012; Sauls and Cermak 2013; Murie and Parkyn 2013). Red grouper (*Epinephelus morio*) are also found cohabitating submerged structures with yellowtail snapper (e.g., artificial and coral reefs), and studies have described lower incidences of gut-hooking red grouper when using circle hooks as opposed to j-hooks (Bacheler and Buckel 2004; Cooke and Suski 2004; Burns and Froeschke 2012). A stock assessment (SEDAR 42, in press) further characterizing the effects of using circle hooks on red grouper is currently in progress, and is due to be completed in the fall of 2015.

Alternative 1 would retain the current circle hook requirements in Gulf of Mexico jurisdictional waters, requiring commercial anglers fishing in federal waters to use circle hooks when fishing for yellowtail snapper with natural bait. Biological impacts from this alternative are not expected to change from present conditions. Any biological benefit(s) to the current circle hook requirement would be expected to persist. In general, fishing behavior may differ when fishermen use circle hooks compared to j-hooks. Anglers using a circle hook may wait for their fishing line to become taught, which is indicative of a fish taking the bait, and *then* reel in the fishing line, often hooking the fish in the mouth. Conversely, fishermen using j-hooks typically jerk the rod upward when they feel the fish take the bait in order to hook the fish, with the likelihood of gut-hooking the fish often being greater than when the angler uses circle hooks. Currently, no literature is available with respect to the post-release mortality of yellowtail snapper when using circle hooks versus j-hooks. However, a recent stock assessment on red snapper recognized and incorporated reduced discard mortality as a result of the requirement to use circle hooks when fishing with natural bait (SEDAR 31 2013). Sauls and Ayala (2012) observed 6.3% potentially lethal injuries with circle hooks versus 17.1% with j-hooks for red snapper.

Alternative 2 would remove the requirement to use circle hooks when fishing commercially with natural bait for yellowtail snapper throughout the exclusive economic zone of the Gulf of Mexico. Some commercial fishermen have informed resource managers of an increased propensity for gut-hooking yellowtail snapper when fishing with circle hooks due to the small size of hook needed to successfully hook yellowtail snapper. These fishermen indicate that the smaller circle hooks (especially those which feature a hook tip which is offset from the shank of the hook) are swallowed completely into the stomach, increasing the likelihood of the hook snagging somewhere in the fish's digestive tract. Circle hooks are designed to be swallowed by the fish, coming back up the fish's esophagus as the fish swims away, and finally hooking the fish in the mouth. This practice requires anglers to allow the fish to swim off with the bait to become hooked. Commercial yellowtail snapper fishing practices do not accommodate allowing a fish to swim off with the bait, thereby preventing circle hooks from being used as designed. If j-hooks are permitted for use, fishermen argue, they will be able to hook yellowtail snapper in the mouth more frequently due to the morphology of the fish's mouth.

Alternative 3 would remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper south of 28° 0' North latitude in the exclusive economic zone of the Gulf of Mexico. Figure 2.1.1 shows the area referenced in **Alternative 3**, focusing on the primary area in which yellowtail snapper are found. The primary harvest areas for yellowtail snapper in the Gulf for both the recreational and commercial sectors exist in waters adjacent to southwestern Florida and the Florida Keys.

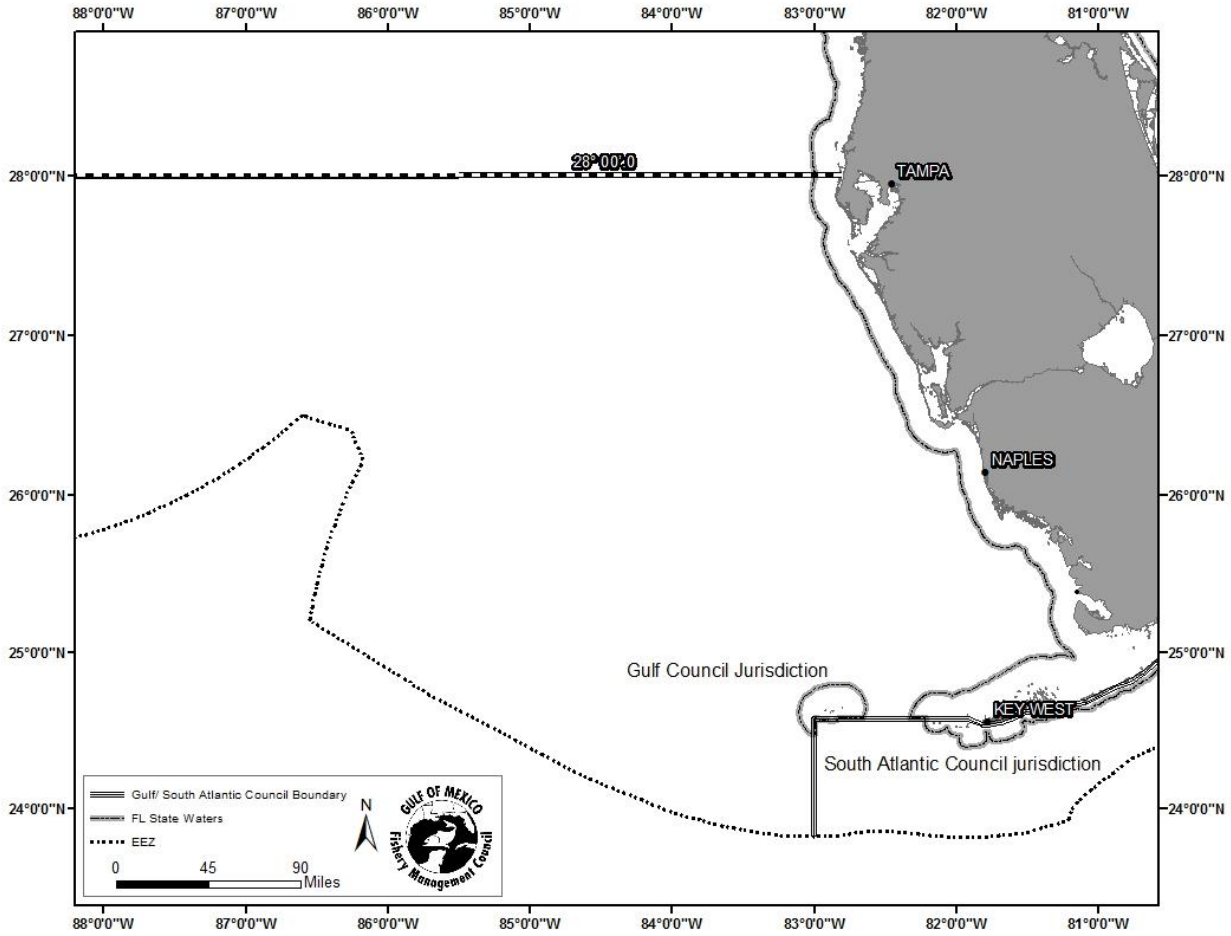

Figure 2.1.1. State of Florida with proposed 28° 0' North latitude boundary in the Gulf Councils' jurisdiction for Alternative 3.

Alternative 4 would remove the requirement to use circle hooks when fishing for yellowtail snapper south of 25° 23' North latitude on the west coast of Monroe County, Florida south to the Gulf Council jurisdictional boundary (Figure 2.1.2).

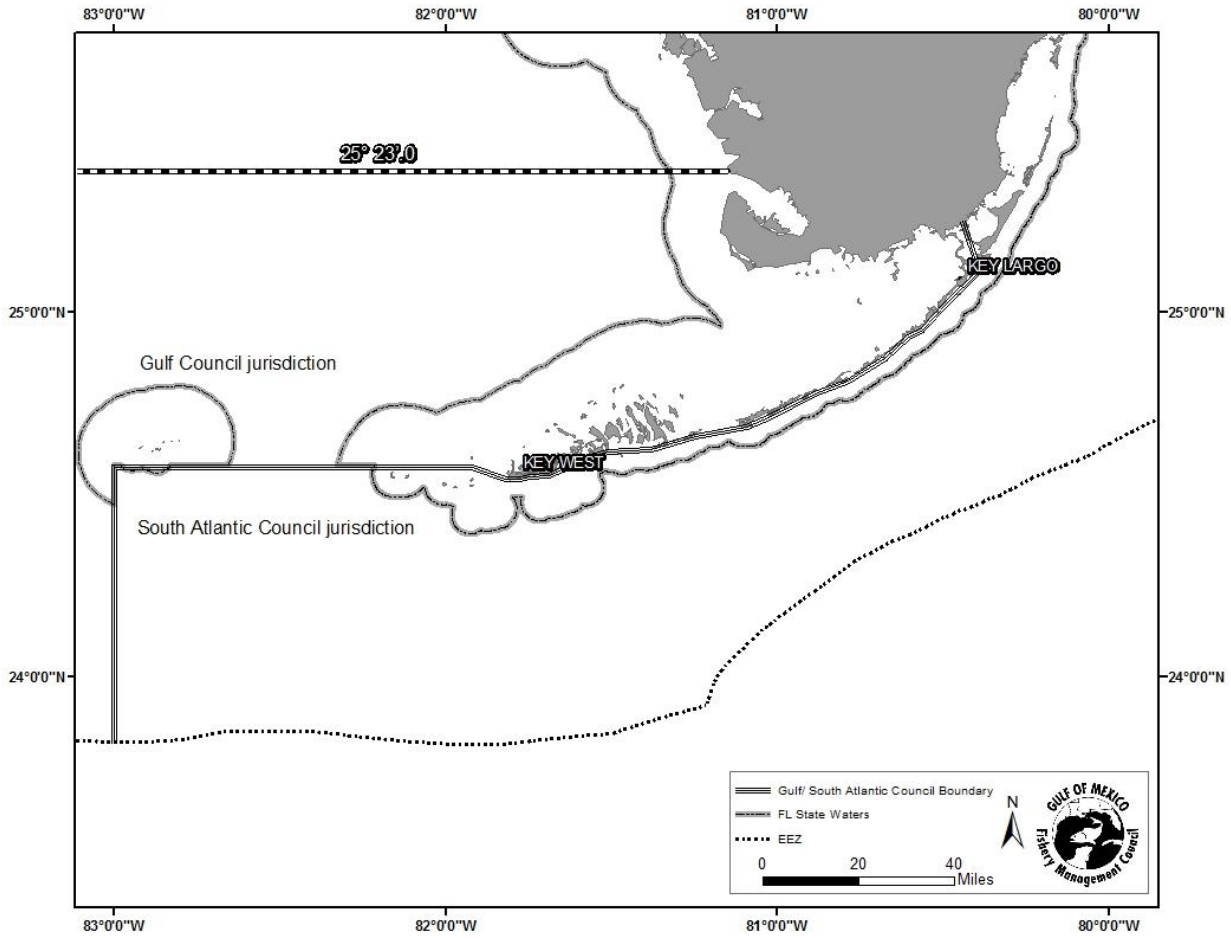

Figure 2.1.2. State of Florida with the boundary line at 25° 23' North latitude on the west coast of Monroe County, Florida, as outlined in Alternative 4.

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Tab B, No. 9

7/31/2015

Reef Fish Management for Headboat Survey Vessels

Amendment 42 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico Draft Options Paper

August 2015

This is a publication of the Gulf of Mexico Fishery Management Council Pursuant to National Oceanic and Atmospheric Administration Award No.NA15NMF4410011

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CHAPTER 1. INTRODUCTION

1.1 Background

Recently, the Gulf of Mexico Fishery Management Council (Council) has taken steps to provide more flexibility in managing various components of the reef fish recreational sector. In 2014, the Council approved Reef Fish Amendment 40 which established separate private angling and federal for-hire components of the red snapper recreational sector, allocated the red snapper recreational ACL between these two components, and implemented separate closure provisions for each component. The federal for-hire component includes all for-hire operators with a valid or renewable federal reef fish charter/headboat permit (for-hire permit). The private angling component includes all other for-hire operators and private recreational anglers. The decrease over time in the proportion of the red snapper recreational annual catch limit (ACL) harvested by anglers fishing from federal for-hire vessels and differences in regulatory environments faced by federal for-hire operators and private anglers - including changes in state regulations relative to red snapper - that contributed to the Council's decision to restructure the red snapper recreational sector are discussed in Amendment 40 (GMFMC, 2014). Recreational fishing for other reef fish species has not been as restricted as red snapper, but fishing for several species has closed in federal waters in recent years for some of the same reasons. These other species may also benefit from flexible management for different components of the recreational sector.

The reorganization of the red snapper recreational sector initiated in Amendment 40 was later expanded by the Council to include a further split of the federal for-hire operators into a headboat sub-component and charter sub-component, and to include other species. In early 2015, the Council requested the initiation of an amendment addressing reef fish management for the headboat component, established an Ad Hoc Reef Fish Headboat Advisory Panel (Headboat AP), developed a charge for the Headboat AP and requested that the AP be convened. As approved by the Council, the charge to the AP was to make recommendations relative to the design and implementation of flexible measures for the management of reef fish for the headboat sub-component of the for-hire sector. In addition to the Headboat AP, the Council also created a charter vessel advisory panel (charter AP) tasked with recommending measures for the management of red snapper for charter operators, and requested the initiation of a charter-specific amendment (Reef Fish Amendment 41). It is important to emphasize that, compared to the charter AP, which is limited to red snapper, the scope of the Headboat AP is broader because it encompasses all reef fish.

The Headboat AP was convened and its recommendations were presented to the Council in May 2015. Management measures under consideration in Amendment 42 include recommendations made by the Headboat AP and traditional management instruments, such as adjustments to bag and size limits and changes in the structure of the fishing season. A summary report of the Headboat AP, meeting including recommendations provided to the Council, is appended to this document (Appendix A).

In the Gulf of Mexico (Gulf), the reef fish for-hire permit does not make a distinction between headboats and charter vessels. Therefore, the development of two distinct amendments addressing the management of red snapper for the charter vessel sub-component (Reef Fish

Amendment 41) and the management of reef fish for the headboat sub-component (Reef Fish Amendment 42) requires clear definitions of which vessels would be included in each amendment.

The Southeast Region Headboat Survey (SRHS) collects catch and effort data from headboats, thereby producing a catch history for each vessel included in the survey. In the Gulf, for the purpose of reporting (as specified in 50 C.F.R. § 622.26(b)), the SRHS considers a for-hire vessel to be a headboat if it meets these criteria:

1) Vessel is licensed to carry 15 or more passengers;
2) Vessel fishes in the exclusive economic zone (EEZ) or state and adjoining waters for federally managed species; and
3) Vessel charges primarily per angler (i.e., by the "head").

The SRHS has been conducted in the Gulf since 1986. As a result, detailed catch histories are available for headboats with sustained participation in the survey. In addition, for fishery managers, the SRHS continues to be the sole source for effort and landings estimates for the headboat component as a whole. For these reasons, this amendment defines the universe of headboat vessels for Amendment 42 as federal Gulf of Mexico vessels participating in the SRHS. For the remainder of this document, unless explicitly stated otherwise, a headboat refers to a Gulf of Mexico federal SRHS vessel. Therefore, the total number of Gulf headboats currently participating in the SRHS constitutes the universe of vessels to which provisions in this amendment would apply. For the Gulf, the number of headboats surveyed in the SRHS by state between 2010 and 2015 is provided in Table 1.1.1.

Table 1.1.1. Number of headboats in the Gulf of Mexico participating in the SRHS 2010-2015.

Year	AL	FL	LA	MS	TX	Total
2010	7	38	4	3	16	68
2011	8	35	4	5	17	69
2012	9	34	4	5	16	68
2013	9	36	3	5	16	69
2014	9	37	2	5	16	69
2015	9	37	2	5	16	69

NMFS SRHS database

1.2 Purpose and Need

The purpose of this action is to provide flexibility, reduce management uncertainty, and improve economic conditions for reef fish headboat operators/owners and increase fishing opportunities for their angler passengers by establishing a management program for federally-permitted headboat vessels participating in the Southeast Region Headboat Survey.

The need for this action is to prevent overfishing while achieving, on a continuing basis, the optimum yield from the harvest of reef fish by the for-hire sector, and taking into account and allowing for variations among fishery resources.

CHAPTER 2. MANAGEMENT OPTIONS

2.1 Reef Fish Species to Include

The Ad Hoc Headboat Reef Fish Advisory Panel (Headboat AP) recommended inclusion of six major reef fish species: red snapper, gag, red grouper, greater amberjack, gray triggerfish, and black grouper. These species are perceived to have the highest recreational landings of the federally managed reef fish. Tables 2.1-6 show landings of each of these species by SRHS vessels and the proportion of those landings versus landings for the recreational sector as a whole. For SRHS vessels, red snapper has the highest landings by far in both numbers and pounds; relatively few black grouper are landed by SRHS vessels.

Table 2.1. Landings (in pounds) of red snapper from vessels participating in the SRHS from 2011 through 2015 by homeport region, plus percentage of the total recreational landings. Note: Some regions have been combined because of confidentiality requirements.

Year	SWFL	NWFL	AL	MS/LA	TX	Total	Percent
2011	14,362	218,833	80,867	29,578	286,928	630,568	15%
2012	17,955	187,878	71,483	27,093	419,675	724,084	14%
2013	12,493	132,300	56,378	22,618	221,491	445,280	5%
2014	10,289	107,534	67,338	12,436	184,696	382,293	10%
2015	1,053	20,146	10,418	207	93,410	125,234	15%

Source: SRHS database, MRIP, LA Creel, TX HBS.

Table 2.2. Landings (in pounds) of **gag** from vessels participating in the SRHS from 2011 through 2015 by homeport region, plus percentage of the total recreational landings. Note: Some regions have been combined because of confidentiality requirements.

Year	SWFL	NWFL	AL-LA	TX	Total	Percent
2011	47,688	1,948	256	344	50,236	7%
2012	34,707	9,808	408	595	45,519	4%
2013	32,083	2,560	22	431	35,096	2%
2014	40,023	1,598	93	183	41,898	5%
2015	6,759	708	24	142	7,634	7%

Source: SRHS database, MRFSS, LA Creel, TX HBS; all MRFSS landings for gag from Monroe County are assigned to the South Atlantic.

Table 2.3. Landings (in pounds) of **red grouper** from vessels participating in the SRHS from 2011 through 2015 by homeport region, plus percentage of the total recreational landings. Note: Some regions have been combined because of confidentiality requirements.

Year	SWFL	NWFL	AL-TX	Total	Percent
2011	28,836	9,163	459	38,459	6%
2012	74,211	12,731	382	87,324	5%
2013	71,960	8,950	344	81,255	3%
2014	41,145	5,953	175	47,272	3%
2015	12,964	845	56	13,864	6%

Source: SRHS database, MRFSS, LA Creel, TX HBS.

Table 2.4. Landings (in pounds) of **greater amberjack** from vessels participating in the SRHS from 2011 through 2015 by homeport region, plus percentage of the total recreational landings. Note: Some regions have been combined because of confidentiality requirements.

Year	FL	Other Gulf	Total	Percent
2011	31,915	30,921	62,836	6%
2012	61,989	37,692	99,681	7%
2013	34,961	38,286	73,247	5%
2014	21,936	24,500	46,435	5%

Source: SRHS database, MRFSS, LA Creel, TX HBS; all MRFSS landings for greater amberjack from Monroe County are assigned to the South Atlantic.

Table 2.5. Landings (in pounds) of **gray triggerfish** from vessels participating in the SRHS from 2011 through 2015 by homeport region, plus percentage of the total recreational landings. Note: Some regions have been combined because of confidentiality requirements.

Year	SWFL	NWFL	AL-LA	TX	Total	Percent
2011	1,401	34,832	11,915	2,303	50,449	11%
2012	997	13,570	3,018	1,121	18,706	7%
2013	796	21,443	3,421	1,453	27,112	6%
2014	229	7,002	932	530	8,693	4%
2015	129	1,991	494	152	2,766	11%

Source: SRHS database, MRFSS, LA Creel, TX HBS.

Table 2.6. Landings (in pounds) of **black grouper** from vessels participating in the SRHS from 2011 through 2015 by homeport region, plus percentage of the total recreational landings. Note: Some regions have been combined because of confidentiality requirements.

Year	SWFL	NWFL	AL-LA	TX	Total	Percent
2011	432	30	-	134	596	100%
2012	601	108	-	530	1,239	5%
2013	1,952	-	-	328	2,280	67%
2014	367	-	-	419	786	100%
2015	41	-	-	-	41	100%

Source: SRHS database, MRFSS, LA Creel, TX HBS; all MRFSS landings for black grouper from Monroe County are assigned to the South Atlantic.

Recreational fishing for several of these species has been limited in recent years, which has prompted the Gulf of Mexico Fishery Management Council (Council) to search for new management regimes to increase fishing opportunities. Red snapper seasons have gotten progressively shorter. The gray triggerfish season has closed before the end of the year since 2012, including 2015. Greater amberjack landings exceeded the ACL in 2013, the season closed in 2014, and the season may close in 2015. The red grouper ACL was exceeded in 2013 and the season closed in 2014; the Council reduced the bag limit for 2015 to try to extend the season. In addition, some of these species are overfished and/or undergoing overfishing (Table 2.7). Changes to management for these species could extend seasons and increase fishing opportunities.

Table 2.7. Overfished and overfishing status of Gulf stocks considered for Amendment 42.

Species	Status of the Gulf Stock	
	Overfished	Overfishing
Red Snapper	Y	N
Greater Amberjack	Y	Y
Gray Triggerfish	Y	Y
Red Grouper	N	N
Gag	N	N
Black Grouper	N	N

Gag landings have been below the ACL since 2012[1]. Although a benchmark assessment for gag, completed in 2014 (SEDAR 33 2014), indicated that the gag stock was no longer overfished or undergoing overfishing, anecdotal information from fishermen indicate that the stock may not be in as good shape as suggested by the assessment. Low landings may be indicative of a reduced stock. New management for gag could help prevent overfishing from recurring.

Black grouper landings have been very low in recent years and have other issues that could make it more complicated to include in the proposed management system. When black grouper was last assessed (SEDAR 19 2010), Gulf and South Atlantic black grouper were combined to produce an ABC. A formula for separating Gulf and South Atlantic ACLs was approved in the Generic ACL/AM Amendment, as was a sector allocation for the Gulf of 27% recreational and 73% commercial. However, the entire Gulf ACL (recreational and commercial) was combined with scamp, yellowmouth grouper, and yellowfin grouper to create a shallow-water grouper complex ACL. To determine an allocation for the SRHS vessels, black grouper would need to be separated from the other shallow-water groupers. Further, because black grouper is landed mainly in south Florida, it is part of a joint amendment with the South Atlantic, which considers partial delegation to Florida and combined ACLs.

The establishment of a separate management program for SRHS vessels harvesting red snapper would not exempt the program from section 407(d) of the Magnuson-Stevens Act which requires that red snapper recreational fishing be halted once the total recreational quota is caught. Some

[1] The December 4 closure of gag is set and not based on the ACL.

participants in the selected program, particularly if it is an allocation-based program, may have to forgo remaining annual allocation of red snapper and lose fishing opportunities after the red snapper recreational ACL is caught. This provision would not apply to other species that might be included in the program.

2.2 Type of Management Program

2.2.1 Size Limit, Bag Limit and Season Adjustments

If the Council elects to continue to manage reef fish effort and harvests in the headboat component using traditional approaches, the range of management measures would be fairly limited. Traditional management instruments, commonly referred to as command and control management would include adjustments to the size and bag limits and changes to the structure of fishing seasons.

Size Limit

The management of Gulf reef fish species that are considered in this document includes minimum size requirements. Minimum size limit requirements can protect smaller fish from being harvested and reduce fishing mortality. Size limit requirements would allow fish to spawn before harvest if the minimum size is set above size-at-maturity. However, size limits can result in increased discards. In addition size limits could contribute to higher average weights per fish harvested, potentially negating season extending benefits expected from establishing a minimum size limit requirement.

Bag Limit

Bag limits place restrictions on the maximum number of fish that can be possessed daily by an angler. Bag limit restrictions either apply to a given species, e.g., red snapper or to a species aggregate, e.g., groupers. Daily possession limits are established to reduce fishing pressure by slowing the rate of harvest. Bag limits are expected to extend the fishing season, especially if most anglers catch the current bag limit. Possession limits can contribute to increased discards and may give anglers added incentives to high-grade as they attempt to harvest the largest fish possible. In addition, anglers may object to bag limits, especially if they think the abundance of a given species is greater than NMFS' abundance estimate and thus is not consistent with the restrictions placed on possession, e.g., two-fish limit on red snapper.

Fishing Season

A fishing season determines the time interval during which harvest of a given species or species-group is allowed. Fishing seasons could be continuous with a start and end date or could be split to encompass segments of the fishing year. The length of the season is typically based on projections estimating when the allotted harvest (quota, ACL or Annual Catch Target) is expected to be met. Intervals during which fishing is prohibited can attempt to protect the stock during vulnerable periods such as spawning. Fishing seasons may be established to coincide

with more economically desirable periods. However, predetermined fishing seasons do not afford anglers the flexibility to select the optimal period to go fishing and do not account for potential losses of fishing days due to unfavorable conditions, such as bad weather. When established for large geographical areas, e.g., the Gulf of Mexico, fishing seasons do not account for regional differences in fishing demand.

None of the command and control approaches were favored by a majority of the Headboat AP members. For the management of reef fish species, panel members recommended the use of allocation-based, also known as incentive-based or rights-based, management approaches. Adjustments to the size limit, bag limit and season are included in this document to provide the Council a wider set of management instruments to choose from.

2.2.2 Allocation-based Programs

At their May 2015 meeting, the Headboat AP made a motion recommending that the Council develop an allocation-based program using reported landings from the SRHS. Gulf headboats participating in the SRHS have recorded landings histories beginning in 1986, which could be used to determine program and individual allocations. These types of programs can provide headboats with the flexibility to operate when customers are most abundant, which may differ by region. The programs can also promote safety at sea, by allowing headboats to wait for calm weather.

In an allocation-based program, the quota for a group is divided among individuals or smaller groups, who can then choose when to use that allocation. In the case of headboats, each operator would have allocation to account for fish harvested by the passengers on each trip. Timely reporting is a key element of allocation-based programs; as allocation is used, it must be subtracted from the annual allocation for the individual or group. When each individual or group has used all of their allocation, they must stop fishing or obtain more allocation (if allowed by the program).

Some programs distribute *shares*, which are a set percentage of the quota. If an individual or group holds shares, each year they will receive that percentage of the quota, which is their *allocation*. The allocation amount changes if the quota changes, but the shares remain the same, unless transfer is allowed. In other programs the allocation will change from year to year, depending on quota, changing membership in a group, change in average weight of fish, or other factors. In these cases, shares are not needed and only allocation is distributed.

Several types of allocation-based management programs are described below. Each program would require a portion of the ACL be designated for the program as a whole (see Section 2.3 below), to be further divided among participants. The programs differ in terms of how the shares and/or allocation would be divided and distributed, as well as other program details (Table 1). Multiple issues would need to be considered regardless of the program chosen.

Self-managed Programs

Fishing Cooperatives

The Fishermen's Collective Marketing Act of 1934 (15 USC 521) defines a fishing cooperative as a group comprised of "persons engaged in the fishing industry as fishermen, catching, collecting, or cultivating aquatic products, or as planters of aquatic products on public or private beds, that may act together in association, corporate or otherwise." Fishing cooperative management does not require the participants to be located in the same areas.

Each cooperative is managed by its own manager, independently from the other cooperatives, which would allow flexibility of each cooperative to manage their respective allocation as they deem fit. A single cooperative could be managed for all 79 SRHS vessels, or multiple cooperatives could be formed. The shares (if used) are attached to a manager account; the manager then distributes allocation to vessels according to the internal cooperative agreement.

An example of a recreational collaborative is the Headboat Collaborative pilot study (HBC), which was created to evaluate the viability of an allocation-based management strategy for improving the conservation of marine resources and economic stability and performance of the headboat sector. The HBC program has one manager responsible for distributing allocation to 19 vessels home-ported throughout the Gulf. The structure of a fishing cooperative for all SRHS vessels could be incorporated into the current online system, by adapting the HBC structure. The Headboat AP recommended this type of program.

Regional Fishing Organizations

Regional fishing organizations are similar to fishing cooperatives, except the groups would be based on specific areas (e.g. states). Each region would designate a manager that would distribute the allocation among the vessels within that organization. The shares are attached to a regional manager account, who then distributes the allocation to vessels according to bylaws associated with that regional unit. The structure of a regional fishing organization for SRHS vessels could be incorporated into the current online system, by adapting the HBC structure.

Programs managed by the National Marine Fisheries Service (NMFS)

Individual Fishing Quotas (IFQs)
An IFQ program involves shares and allocation held by individuals, in this case, permit holders with vessels in the SRHS. Shares would be distributed to each permit holder based on the landings history associated with their permit or vessel in the SRHS and SERO databases. Those shares would represent a percentage of the quota allocation for the program. After the initial distribution, shares would be associated with the permit holder but not the permit itself. Therefore, shares could be transferred separately from the permit, in accordance with any restrictions in the program. Each year, allocation would be distributed to participants holding shares by NMFS; individual allocation would be determined by multiplying the shareholder percentage by the program allocation.

The NMFS Southeast Regional Office currently manages commercial IFQ programs for red snapper, groupers, and tilefish. The structure of an IFQ program for SRHS vessels could be incorporated into the current online system. Participants would hold shares and allocation in accounts within the IFQ system, and distribution, usage, and transfers would all be tracked by NMFS.

An IFQ program offers maximum flexibility to SRHS vessel operators. Participants hold shares and determine usage of their allocation. Depending on transferability options chosen, participants can buy or sell shares and allocation to meet their needs. However, many people feel that IFQs allow individuals who do not fish to potentially control availability and cost of shares and allocation, although this could be prevented in the design of the program.

Permit Fishing Quotas (PFQs)

A PFQ program involves shares and allocation associated with a permit, in this case federal Gulf reef fish charter/headboat permits that are associated with vessels in the SRHS survey. There are two main ways in which a PFQ may function: attaching shares to a permit (share PFQ) or assigned allocation allotments based on permit characteristics (allocation PFQ). In the share PFQ system, the amount of shares assigned to a permit may be based landings history, a tiered approach, or some other metric. Those shares would represent a percentage of the quota allocation for the program and allocation will be distributed to that permit holder at the start of the year. Shares would not be transferrable, but if the permit transferred the shares would transfer with the permit and now be associated with the new shareholder. In an allocation PFQ system, allocation would be distributed annually based on some permit and/or vessel characteristic (e.g. passenger capacity). A permit's assigned allocation may change based on the quota and the characteristic used to define the tier, or as the pool of permits with a characteristic changes over time. In this type of system, allocation assignments would need to be calculated before the start of every year.

The NMFS Southeast Regional Office currently maintains and supports the commercial Bluefin Tuna Individual Bluefin Quota program, which is a type of share PFQ. The structure of a share or allocation PFQ program for SRHS vessels could be incorporated into the current online system, with modifications to the system. Permits would hold allocation and/or shares in accounts within the IFQ system, and distribution, usage, and transfers would all be tracked by NMFS.

A PFQ program offers flexibility to SRHS vessel operators. Participants hold and determine the usage of their shares and/or allocation. A primary difference between IFQ and PFQ programs is the distribution and ability to transfer shares. In an IFQ the shares become disassociated from the landings history as they are assigned to an individual and may be transferred separately from the permit or vessel. In a share PFQ, the shares cannot be separated from the permit and do not belong to an individual. Consequently, the permit may gain an additional value through its association with a share percentage. In an allocation PFQ, there are no shares but the amount of annual allocation received is based on a characteristic of the permit/vessel. In this type of system, it is the combination of vessel and permit that may have added value.

Table 2.8. Comparison of four allocation-based management programs.

	Cooperatives	Regional Org	IFQ	PFQ
Shareholder	NA	NA	Account holder	Permit holder
Allocation Distributed by:	Manager	Manager	NMFS	NMFS
Annual Allocation Distributed to:	Vessels in the coop based on internal agreement	Vessels in the region based on bylaws	Individual accounts based on shareholdings	Permit accounts based on attributes associated with the permit
Share Transfers*	NA	NA	Between individuals with accounts	Must transfer permit to transfer shares
Allocation Transfers*	Within or between coops	Within or between regions	Between individuals with accounts	Between permit holders with accounts

*Limitations may be set by the program.

Issues inherent to all allocation-based programs

Many issues will need to be addressed by the Council during development of any allocation-based program. Actions associated with these issues will be included in the amendment; however, the form of the action may differ depending on the program(s) chosen for further consideration.

- Objectives/evaluation – What are the objectives of the program? What are the expected outcomes for this component of the fishery?
-
- Initial distribution – How will shares and allocation be calculated for each allocation unit (cooperative, regional organization, individual, or permit)? How will allocation be distributed to each allocation unit, and within an allocation unit if it is a group?
- Transferability – Can participants transfer shares? Can participants transfer allocation? Should such transfers be restricted? Should caps be set? Should a participant be required to hold a federal Reef Fish Charter/Headboat Permit to buy or sell shares and allocation?
- Use of allocation – Should a federal Reef Fish Charter/Headboat Permit be required to use allocation? Should participants be required to use allocation or risk losing it?
- Referendum – Which of these programs would need a referendum? The Magnuson-Stevens Act states: "the Gulf Council(s) may not submit, and the Secretary may not approve or implement, a fishery management plan or amendment that creates an individual fishing quota program…unless such a system, as ultimately developed, has been approved by…a majority of those voting in the referendum among eligible permit holders with respect to the Gulf Council. For multispecies permits in the Gulf of Mexico, only those participants who have substantially fished the species proposed in to be included in the individual fishing quota program shall be eligible to vote in such a referendum."

2.2.3 Fish Tags

Fish tags could be used as a stand-alone allocation-based management approach, or as an enforcement and validation tool in conjunction with another allocation-based program. As a stand-alone program, fish tags would be used for granting harvest privileges and controlling harvest (Johnston et al. 2007). A fish tag program would involve the distribution of physical harvest tags, each of which would allow the angler possessing the tag to retain an individual fish per tag. After capture, the tag must be affixed to the fish, thereby identifying the individual fish as legally caught, and preventing the tag from being used to catch additional fish. The number of tags available each year would be determined by the amount of the recreational sector ACL for each species apportioned to the SRHS vessels in the program, divided by the average weight of each species caught on headboats. Any unused tags at the end of the year would be forfeit, and new tags would be distributed at the beginning of each year.

Fish tags could be distributed in multiple ways, including equal distribution among SRHS vessels, using criteria such as passenger capacity or regional variability in the abundance of each species, and/or historical landings. Alternately, fish tags could be distributed through a lottery or auction. The Council would evaluate and determine the features of the program, including methods of distribution and whether tags would be transferable among program participants.

A fish tag program could provide SRHS operators and their passenger anglers with greater flexibility as to when fish could be caught. However, it should not be assumed that all participating vessels would receive a quantity of tags they feel is sufficient to meet their clients' needs.

2.3. Allocation Issues

For each reef fish species included in this management plan, a portion of the corresponding recreational quota must be allocated to the SRHS component prior to the development of management measures tailored to the specific needs of headboat survey vessels. As discussed in previous sections, reef fish landings from headboat survey vessels have been documented by the SRHS since 1986. Therefore, time series for the percentages of the recreational landings harvested by headboat survey vessels are available and could serve as a basis for apportioning quota between anglers harvesting reef fish from headboat survey vessels and other components of the recreational sector. Table 2.9 provides percentages of the recreational landings harvested by headboat survey vessels. If an allocation for all federally permitted for-hire vessels has already been determined for a given species, e.g., red snapper, then the percentages of the federal for-hire landings attributed to headboat survey vessels could be used to determine the allocation between charter and headboat vessels. The percentages of the recreational red snapper quota landed by private anglers, anglers fishing from charter vessels and from headboat survey vessels are provided in Table 2.10.

Table 2.9. Percentage of the recreational landings harvested by headboat survey vessels (2011-2015).

Year	Red Snapper	Gag Grouper	Red Grouper	Greater Amberjack	Gray Triggerfish	Black Grouper
2011	15%	7%	6%	6%	11%	100%
2012	14%	4%	5%	7%	7%	5%
2013	5%	2%	3%	5%	6%	67%
2014	10%	5%	3%	5%	4%	100%
2015	15%	7%	6%		11%	100%
Average	12%	5%	5%	6%	8%	74%

Source: SRHS, MRIP, MRFSS, LA Creel, TX Headboat Survey

Table 2.10: Percentages of the recreational red snapper landings harvested by charter, headboat, and private anglers (2011-2014).

Year	Charter	Headboat Survey Vessels	Private Anglers
2011	23%	15%	63%
2012	25%	14%	61%
2013	13%	5%	82%
2014	9%	10%	81%
Average	17%	11%	72%

Source: SRHS, MRIP, MRFSS, LA Creel, TX Headboat Survey

2.4. Measurement Units (Pounds or Number of Fish)

Recreational data collection programs such as the Marine Recreational Information Program (MRIP) and the SRHS estimate recreational harvests in number of fish caught and in pounds. For the management measures considered in this amendment, especially allocation-based programs, the distribution of the quota allotted to the SRHS component and between headboat vessels in the SRHS could be based on pounds or number of fish. Quota distributions to individual vessels expressed in pounds may be challenging for headboats as well as for managers due to the manner in which headboats operate (multitude of anglers on the vessels; typically fish are weighted, not counted). The estimation of an average weight per fish is required for the conversion of the headboat portion of the quota from pounds to number of fish. Due to temporal and spatial fluctuations in average weights, recorded landings have to be monitored during the year. For example, in the headboat collaborative pilot program, NMFS compares the pre-season average weight to the actual average weight during the season and makes adjustments if warranted. Port side sampling is crucial for these calculations and may need to be increased to accurately track average weights per region.

2.5. ACT Adjustments (Consider Smaller buffers)

The Magnuson-Stevens Act requires ACLs and AMs for most federally managed species. ACTs act as in-season AMs by decreasing the probability of landings exceeding the ACL. In the Generic ACL/AM Amendment[2] (GMFMC 2011b), the Council established a control rule to set ACLs and ACTs. This control rule determines a buffer between the ACT and the ACL based on stock assemblage, ability to constrain catch (i.e., history of overages), and precision of landings.

Because the new management program would create a separate quota for SRHS vessels and potentially a method of absolute counting, the Council could revisit the control rule and consider different buffers. However, if the Council chooses to set the SRHS vessel component quota in numbers rather than pounds, the method of counting would no longer be absolute; the ACLs are set in pounds, so the quota would need to be converted to numbers, and conversions create uncertainty. Fish weights can vary from year to year, so basing a conversion on the average weight from one year might lead to inaccuracies the next year.

For red snapper, the Council implemented a recreational ACT that is 20% below the recreational ACL based on the control rule, first through an emergency rule in response to a judge's order[3], and then through a framework action implemented in 2015. The buffer for greater amberjack is 13% and the buffer for gray triggerfish is 10%, as set using the control rule. The gag buffer is 10% and the red grouper buffer is 9%; however, these buffers were set before the control rule was developed. Black grouper is part of the shallow-water grouper complex (SWG). The buffer for SWG is 5%. Because the recreational allocation of SWG is based entirely on black grouper landings, the SWG buffer is essentially the current black grouper buffer.

[2] Full title: Final Generic Annual Catch Limits/Accountability Measures Amendment for the Gulf of Mexico Fishery Management Council's Red Drum, Reef Fish, Shrimp, Coral and Coral Reefs Fishery Management Plans.
[3] *Guindon v. Pritzker*, 2014 WL 1274076; D.D.C. Mar. 26, 2014

APPENDIX A: HEADBOAT AP MEETING SUMMARY

Summary for the Ad Hoc
Headboat Reef Fish Advisory Panel
New Orleans, LA
May 19, 2015

Panel Members
Pam Anderson
Randy Boggs
Clifton Cox
Jim Green
Chad Haggert
Mark Hubbard

Council and Staff
Myron Fischer
Assane Diagne
Ava Lasseter
Karen Hoak

Panel Members cont'd
Kelly Owens
Charles Paprocki
Tom Steber
Skipper Thierry
Dustin Trochesset
John Williams

Attendance-Others
Jeff Barger
Kristen McConnell
Jessica Stephen
Shane Cantrell
Ken Brennan
J.P. Brooker
Tim Hobbs
Elbert Whorton

The meeting was convened at 8:30 a.m. The AP elected Randy Boggs as Chair and Mark Hubbard as Vice-Chair. The Chair read the charge to the AP, which is to make recommendations to the Council relative to the design and implementation of flexible measures for the management of reef fish for the headboat component of the for-hire sector.

Ken Brennan gave a presentation on the geographical distribution of headboats participating in the Southeast survey and their reef fish landings. AP members discussed how to differentiate charter boats and headboats and staff added that for the purpose of a management plan, headboats would be defined as those participation in the Southeast Headboat Survey (HBS).

AP members discussed the species to include in a management plan for the headboat fleet. Staff noted the reef fish species for which sector allocations currently exist and the AP passed the following motion:

- **To investigate the possibility of managing all 6 major reef fish species in this management plan (red snapper, gag, red grouper, greater amberjack, gray triggerfish, and black grouper).**

AP members discussed whether headboats should be managed as a stand-alone component and the benefits and obstacles of different management approaches. Staff noted that headboats participating in the HBS had recorded landings histories, while charter boats do not. An AP member expressed concern with further dividing the recreational sector, stating the sector will be stronger if they do not separate into subgroups, which diminishes their collective voice. The AP

member added that aiming toward a year-round fishery would require catch shares, but providing flexibility for different fishing seasons could be accomplished under regional management. Other AP members preferred to be managed separately, citing the increased access provided to passengers fishing under the headboat collaborative and the flexibility of the allocation-based headboat collaborative which allows operators to decide when to fish and use quota. The AP passed the following motions:

- **That headboats be acknowledged as a stand-alone component of the recreational sector. This would include all vessels with federal for-hire reef fish permits that participate in the Southeast Region Headboat Survey (Beaufort survey).**

- **To recommend to the Council to develop a management approach that provides year round fishing opportunities for headboat businesses and anglers, stability in business plans, safety at sea, improved data collection, reduced discards, and accountability to catch limits.**

- **To recommend to the Council that the headboat management plan be allocation based on reported landings by the Beaufort headboat survey (HBS).**

AP members discussed enforcement and validation tools, such as vessel monitoring systems (VMS) or fish tags. Those opposed to VMS felt it was expensive and unnecessary for hailing out and hailing in, especially for headboats which follow tight, predictable schedules, and that other options were available. Other AP members responded to those concerns, noting the reliability of the VMS units and flexibility to use other options for hailing in. The AP passed the following motion:

- **To recommend to Council that enforcement tools for monitoring are:**
  - **VMS used for hail-out/hail-in on all trips, landings notification on fishing trips**
  - **Tags used to improve enforcement**
  - **Electronic logbooks submitted to the Beaufort survey on the same day as each fishing trip.**

AP members discussed the transferability of allocation under an allocation-based management system. Concern was expressed that transferability could result in increased costs for passengers to retain fish, and that allocated fish should not be purchasable by other vessels, but be returned and be redistributed fairly. Those in support of transferability argued it allowed for flexibility in the management plan. The AP also discussed management costs of a new headboat management plan,. The AP passed the following motions:

- **The advisory panel supports transferability of headboat allocations among participants in the headboat component, consistent with MSA guidelines on transferability, but without inter-sector trading.**

- **To recommend to the Council to consider how management costs can be shared between the NMFS and the headboat component of the fishery.**

Staff noted that both the Ad Hoc Charter AP and this Ad Hoc Headboat AP passed motions recommending separate management of charter boats and headboats. To accomplish separate management, the for-hire component's quota would need to be divided between charter boats and headboats. Headboats that participate in the HBS have landings histories which could be used as the basis for allocating between the for-hire components and an AP member stated that headboats have accounted for 32 to 36% of red snapper landings. The AP passed the following motions:

- **To recommend to the Council that the headboat component become a subsector of the for-hire sector/component, and that allocation based fisheries be deemed from our historical Beaufort headboat survey data, using the formula from Amendment 40.**

- **To recommend to the Council that this panel reconvenes as soon as possible to continue advising on the headboat component for the reef fish fishery.**

Continuing to manage headboats with bag limits, size limits, and seasons was discussed, but those opposed stated that traditional management approaches have not worked. Additional discussion concerned identifying data needs and improving accountability for the fleet, with the goal of reducing uncertainty and removing the 20% buffer to the recreational quota. AP members asked headboat collaborative participants about the program, including customer perceptions, use of tags, and bag limits. An AP member noted that one of the challenges of the program was that more people could not participate. The AP passed the following motion:

- **To recommend to the Council that the key components of the headboat EFP be considered for allocation-based management of headboats.**

Following review of their recommendations, the AP meeting was adjourned at 3:30 pm.

All meeting motions including substitute and failed motions:

Motion: That red snapper and gag grouper be the primary species that this management plan encompasses.

> Substitute motion: To investigate the possibility of managing all 6 major reef fish species in this management plan (red snapper, gag, red grouper, greater amberjack, gray triggerfish, and black grouper)
> **Substitute Motion carried 8 to 3**

Motion: That headboats be acknowledged as a stand-alone component of the recreational sector. This would include all vessels with federal for-hire reef fish permits that participate in the Southeast Region Headboat Survey (Beaufort survey).
Motion carried 11 to 1

Motion: To recommend to the Council to develop a management approach that provides year round fishing opportunities for headboat businesses and anglers, stability in business plans, safety at sea, improved data collection, reduced discards, and accountability to catch limits.
Motion carried 11 to 1

Motion: To recommend to the Council that the headboat management plan be allocation based on reported landings by the Beaufort headboat survey (HBS).
Motion carried 10 to 2

Motion: To recommend to Council that enforcement tools for monitoring are:

- VMS used for hail-out/hail-in on all trips, landings notification on fishing trips
- Tags used to improve enforcement
- Electronic logbooks submitted to the Beaufort survey on the same day as each fishing trip
  Motion carried 8 to 4

Substitute motion: To recommend to the Council that enforcement tools, an app, or a traditional logbooks be used, with a call-in/call-out component that do not require VMS.
Motion failed 4 to 7

Second substitute motion: To use an allocation based management system, that a VMS system will be required. With a traditional management system (size limits, bag limits, seasons, etc.) that VMS not be required.
Motion failed for lack of a second

Motion: The advisory panel supports transferability of headboat allocations among participants in the headboat component, consistent with MSA guidelines on transferability, but without inter-sector trading.
Motion carried 11 to 1

Substitute motion: That if the Council chooses to move towards an allocation based management system, that there will not be a monetary value assigned to the allocation for transferability.
Motion failed 10 to 2

Motion: To recommend to the Council to consider how management costs can be shared between the NMFS and the headboat component of the fishery.
Motion carried 9 to 2

Motion: To recommend to the Council that the headboat component become a subsector of the for-hire sector/component, and that allocation based fisheries be deemed from our historical Beaufort headboat survey data, using the formula from Amendment 40.
Motion carried 11 to 1

Motion: To recommend to the Council that this panel reconvenes as soon as possible to continue advising on the headboat component for the reef fish fishery.
Motion carried with no opposition

Motion: To recommend to the Council to manage the headboat fleet with seasons, bag limits, and size limits along with additional appropriate accountability measures, allowing scientists to determine what data they need, and applying that request of data to the current headboat survey.
Motion failed 2 to 9

Motion: To recommend to Council that a management plan for the headboat sector be designed closely mirroring the headboat EFP.
Motion carried 10 to 2

Motion: to reconsider prior motion
Motion carried 7 to 3

Substitute Motion: To recommend to the Council that the key components of the headboat EFP be considered for allocation-based management of headboats.
Revised Substitute Motion carried 8 to 3

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Tab B, No. 10
7/30/2015

Red Snapper Management for Federally Permitted Charter Vessels

Draft Options Paper for Amendment 41 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico

August 2015

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CHAPTER 1. INTRODUCTION

1.1 Background

In 2014, the Gulf of Mexico Fishery Management Council (Council) reorganized the recreational sector by defining private angling and federal for-hire components for the harvest of red snapper in the Gulf of Mexico (Gulf) and allocating the recreational sector annual catch limit (ACL) between the recreational components (GMFMC 2014a). Establishing separate components within the recreational sector provides a basis for development of flexible management approaches tailored to each component which may reduce the likelihood for recreational quota overages that could jeopardize the rebuilding of the red snapper stock. In 2015, separate red snapper fishing seasons were established based on the estimated catch rates for each component's proportion of the recreational sector ACL, 42.3% for the federal for-hire quota and 57.7% for the private angling quota. All other management measures affecting the harvest of red snapper remain the same for both components,[1] including a 16-inch total length (TL) minimum size limit, 2-fish per person per day bag limit, and June 1 season start date.

Following the passage of Amendment 40 which specified the creation of the separate components, the Council discussed the development of flexible management approaches for the distinct components. The private angling component includes anglers fishing from private vessels and for-hire operators without a federal permit (i.e., state-licensed). The federal for-hire component includes all for-hire vessels with a valid or renewable Gulf charter/headboat permit for reef fish, including historical captain charter/headboat permits.[2] The federal for-hire permit for reef fish, called a Gulf Charter/Headboat permit for Reef Fish, does not make a distinction between charter vessels and headboats. Some federally permitted for-hire vessels have historically been selected to participate in the Southeast Region Headboat Survey (SRHS), and as a result, these participating vessels have landings histories. The vessels in the SRHS were selected based on factors including size, carrying capacity, and business operation. These vessels are required to submit landings data on a weekly basis. A few vessels have been added or removed from the SRHS; however, vessel participation is stable. Currently, 68 vessels in the Gulf participate in the SRHS and have associated landings histories.

The remaining vessels with a federal for-hire permit do not participate in the SRHS and instead, have their landings estimated through the Marine Recreational Information Program (MRIP). The MRIP for-hire survey includes a voluntary dockside intercept survey and a monthly phone survey sampling approximately 10% of federally permitted charter vessels. In recognition that the remaining 1,250 federally permitted for-hire vessels do not have landings histories, the Council expressed interest in further reorganizing the federal for-hire component and initiated development of separate amendments to evaluate flexible management approaches which could

[1] The Headboat Collaborative is in its second year of an exempted fishing permit (EFP) and has been assigned a portion of the red snapper recreational sector ACL. The EFP allows for some different management measures.
[2] To qualify for a Historical Captain Gulf Charter/Headboat (HRCG) permit for Reef Fish, a captain must be U.S. Coast Guard licensed and operating as a captain of a for-hire vessel prior to March 29, 2001, and have at least 25% of their earned income from recreational for-hire fishing in one of the last four years ending March 29, 2001. These permits are renewable but not transferable, and require the permitted vessel be operated by the historical captain. As of July 29, 2015, there were 28 active or renewable HRCG permits.

be tailored to these sub-components of the federal for-hire component, based on the presence or absence of recorded landings histories. In part, this is due to the fact that different management approaches may be possible for vessels with landings histories recorded through the SRHS compared with those who do not have these recorded landings histories.

Management approaches for federally permitted vessels participating in the SRHS with associated landings histories, referred to here as ***headboats***, are being evaluated in Amendment 42. Management approaches for federally permitted for-hire vessels that do not participate in the SRHS and thus do not have recorded landings histories are referred to as ***charter vessels***. This Amendment 41 evaluates flexible management approaches for charter vessels. The distinction between charter vessels and headboats established for the purpose of this amendment is different than the definition of a charter vessel and headboat in the federal regulations at 50 C.F.R. § 622.2 (Appendix A).

In this amendment:

Charter vessels refer to all federally permitted for-hire vessels that do not participate in the Southeast Region Headboat Survey and thus do not have recorded landings histories.

Headboats refer to all federally permitted for-hire vessels that participate in the Southeast Region Headboat Survey and thus have recorded landings histories.

The Council also established an Ad Hoc Red Snapper Charter For-hire Advisory Panel (Charter AP) to provide recommendations toward the design and implementation of flexible measures for the management of red snapper for charter vessels. In addition to the Charter AP, the Council created a corresponding Headboat AP charged with making recommendations for the management of reef fish for the headboat sub-component.

Management measures considered in this options paper include traditional management instruments such as adjustments to bag limits and the structure of the fishing season, as well as allocation-based management approaches, including recommendations made by the Charter AP. A summary report of the Charter AP meeting, including its recommendations, is provided in Appendix B.

Components of the Recreational Sector

The Council passed Amendment 40 with a 3-year sunset clause (GMFMC 2014a). Unless the Council takes action to otherwise modify management of the separate components (e.g., through Amendment 39[3] or another plan amendment), the provisions establishing separate recreational

[3] The current draft of Amendment 39 addressing Regional management of recreational red snapper can be accessed on the Council's website: http://gulfcouncil.org/council_meetings/Briefing%20Materials/BB-06-2015/B-9%202015%20June%20-%20Actions-Alts%20RF39%20Reg%20Man%205-28-2015.pdf

components and the respective allocations will expire on December 31, 2017. Retaining a distinct federal for-hire component with an associated component quota is necessary for the establishment of red snapper management for charter vessels. Amendment 41 is the current vehicle the Council is using to develop a management strategy for charter vessels harvesting red snapper. Thus, an action would be included to provide the Council the opportunity to extend management of the separate components of the recreational sector. Such an action would be necessary for the Council to establish the other actions in the amendment pertaining to the design features of charter vessel management for red snapper.

Relatedly, an action would be needed to determine the sub-component allocation between charter vessels and headboats, if the Council continues to pursue separate management approaches for the sub-components. The appropriate placement of such an action, whether in Amendment 41 or 42, will be determined based on the Council's intent and progress in developing these actions.

Gulf Charter Vessels with Federal Permits for Reef Fish

Charter vessels with federal reef fish permits are distributed throughout the Gulf with a concentration of vessels along the west Florida coast. Based on the homeport listed on the permit application, approximately 51% of the permits are in west Florida (excluding the Keys), 11% in Alabama, 3% in Mississippi, 10% in Louisiana, and 17% in Texas (Table 1.1.1). The permits on the east coast of Florida are assumed to be fishing along the west coast of Florida or in the Florida Keys. The number of permitted vessels actively engaged in reef fish charter fishing and the number of latent reef fish charter permits is unknown. The number of permitted vessels actively engaged in red snapper fishing is also unknown.

Table 1.1.1. Regional distribution of charter vessels with Gulf Reef Fish Charter/Headboat Permits by homeport state. Vessels participating in the SRHS are not included.

State (Region)	Number of Charter Vessels
Florida	
East Coast	9
Panhandle (Escambia - Gulf)	259
Peninsula (Franklin - Collier)	381
Keys (Monroe)	85
Alabama	136
Mississippi	34
Louisiana	119
Texas	214
Non-Gulf state	16
Total	1250

Source: NMFS SERO permit database; data queried on July 6, 2015.

In general, charter vessels charge by the trip rather than by the individual angler, as is typical of headboats. Although there are some charter vessels with large passenger capacities, charter vessels generally have a lower passenger capacity than headboats. The majority of charter

vessels do not have a USCG certificate of inspection (COI), and are thus limited to carrying a maximum of six passengers (Table 1.1.2). Nevertheless, charter vessels are not only classified as such based on the vessel's passenger capacity, and some charter vessels with larger passenger capacities may charge a fee per passenger rather than charging for the entire vessel.[4]

Table 1.1.2. Passenger capacity of charter vessels.

Passenger Capacity	Number of Charter Vessels
6	1,106
7-10	6
11-15	25
16-20	39
21-25	27
26-30	10
31-40	12
41-50	16
51-80	4
>80	5

Source: NFMS SERO permit database; data queried on July 6, 2015. Vessels participating in the SRHS are not included.

1.2. Purpose and Need

The **purpose** of this action is to develop a flexible management approach for federally permitted charter vessels that provides flexibility, reduces management uncertainty, improves economic conditions, and increases fishing opportunities for federal charter vessels and their angler passengers.

The **need** is to adhere to the national standards (NS) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and to reconsider fishery management within the context of the regions of the Gulf: to prevent overfishing while achieving, on a continuing basis, the optimum yield from the harvest of red snapper by the for-hire sector (NS 1); take into account and allow for variations among, and contingencies in the fisheries, fishery resources, and catches (NS 6); and provide for the sustained participation of the fishing communities of the Gulf and to the extent practicable, minimize adverse economic impacts on such communities (NS 8).

[4] Whether a vessel is a charter vessel or headboat, as defined in 50 C.F.R. § 622.2, is based solely on vessel size and passenger capacity. As previously noted, the definitions of charter vessel and headboat that are used for the purpose of this amendment is different than the definitions in the regulations.

1.3 History of Management

In recent years, a decreasing number of federal for-hire vessels, shorter red snapper recreational fishing seasons, and declining proportions of the red snapper recreational quota harvested by the federal for-hire component have adversely affected the stability of the for-hire component of the recreational sector, for both operators and their angler passengers. In response to these unfavorable conditions, the for-hire industry and the Council began exploring management measures to mitigate these conditions. Efforts by the for-hire industry are illustrated by the ongoing Gulf Headboat Collaborative Program and the exempted fishing permit application submitted by Alabama Charterboats. This section reviews the management actions pertaining to recreational red snapper management and the management of federally permitted for-hire vessels, including Council discussions related to the development of this Amendment 41.

Recreational red snapper management

The Gulf red snapper stock is overfished and currently under a rebuilding plan. Consistent with the rebuilding plan, both commercial and recreational quotas have been allowed to increase as the stock has recovered. Improvements to the stock were reflected in quota increases from 5.00 million pounds (mp) in 2009 to 11.00 mp in 2014. The commercial sector has been managed under an individual fishing quota (IFQ) program since 2007 and landings have stayed below the commercial quota as each IFQ allocation holder is strictly monitored to ensure they do not land more fish than pounds allocated to them through the program. Currently, the commercial sector is regulated by a 13-inch TL minimum size limit for red snapper. Recreational fishing for red snapper is managed with a 16-inch TL minimum size limit, 2-fish bag limit, and a season beginning on June 1 and ending when the recreational quota is projected to be caught for the private angling and for-hire components.

Despite the increasing recreational quota in recent years (2.45 mp in 2009 to 7.01 mp in 2015), the season length has decreased, in part because the average size of the fish harvested has increased (i.e., it takes fewer fish to fill the quota). As the red snapper stock rebuilds, the abundance and size of red snapper in the Gulf are increasing. More fish means people are catching them faster, and those that are landed are larger, thus the pounds of quota get caught faster. This situation is compounded when the States implement less restrictive state-water seasons. Catches in these extended state-water seasons have to be accounted for in calculating when the recreational quota will be reached.

Prior to 1997, recreational fishing for all reef fish was open year round in federal waters of the Gulf. Although catch levels were controlled through minimum size limits and bag limits, the recreational sector exceeded its allocation of the red snapper total allowable catch, though the overages were declining through more restrictive recreational management measures. The Sustainable Fisheries Act of 1996 required the establishment of quotas for recreational red snapper fishing and commercial fishing that, when reached, result in a prohibition on the retention of fish caught for each sector, respectively, for the remainder of the fishing year. With the establishment of a recreational quota in 1997, the Regional Administrator was authorized to close the recreational season when the quota is reached as required by the Magnuson-Stevens Act. From 1997 through 1999, the National Marine Fisheries Service (NMFS) implemented the

recreational red snapper quota requirement through an in-season monitoring process by establishing a quota monitoring team that, through monitoring landings data that were available, plus projecting landings based on past landings patterns, projected closing dates a few weeks in advance. Between 1996 and 2013, the recreational fishing season decreased from 365 days to 42 days.[5]

In 2008, **Amendment 27/Shrimp Amendment 14** (GMFMC 2007) revised the rebuilding plan for red snapper. For the recreational sector, the rule implemented a June 1 through September 30 fishing season in conjunction with a 2.45 mp recreational quota, 16-inch TL minimum size limit, 2-fish bag limit, and zero bag limit for captain and crew of for-hire vessels.

At its April 2014 meeting, the Council requested an emergency rule to revise the recreational accountability measures for red snapper by applying a 20% buffer to the recreational quota, resulting in a recreational annual catch target (ACT) of 4.312 mp whole weight. In addition, several Gulf States announced extended state-water fishing seasons. Given the additional harvest estimated to come from State waters, a 9-day fishing season in federal waters was established for 2014. The Council's decision to request an emergency rule was made following the decision of the U.S. District Court for the District of Columbia in Guindon v. Pritzker (March 26, 2014). In March 2015, the Council implemented a framework action to formally adopt the ACT as a buffer to the recreational sector ACL, and adopted a quota overage adjustment such that if the recreational quota is exceeded in a fishing season, the amount of the overage is deducted from the following year's quota (GMFMC 2014b).

Management of the Federal For-hire Component

Additional actions have affected federally permitted for-hire vessels. Since 1996, when **Amendment 11** was implemented, for-hire vessels fishing in federal waters are required to have a federal reef fish for-hire permit. The initial purpose of the permits was to address potential abuses in the two-day bag limit allowance. It was thought that by having a permit to which sanctions could be applied would improve compliance with the two-day bag limit. In addition, the permit requirement was seen as a way to enhance monitoring of the for-hire component of the recreational sector.

In 2003, a three-year moratorium on the issuance of new charter and headboat Gulf reef fish permits was established through **Amendment 20** (GMFMC 2003), to limit further expansion in the for-hire fisheries, an industry concern, while the Council considered the need for more comprehensive effort management systems. This means that participation in the federal for-hire component is capped; no additional federal permits are available. The number of federal reef fish for-hire permits has been decreasing since the establishment of the moratorium (GMFMC 2014a). The permit moratorium was extended indefinitely in 2006 through **Amendment 25** (GMFMC 2006).

Amendment 30B (GMFMC 2008) included an action requiring that vessels with federal commercial or charter/headboat reef fish permits comply with more restrictive federal reef fish

[5] Upon availability of a quota increase in 2013, the 28-day recreational season was supplemented by a 14-day fall season for a total of 42 days.

regulations if State regulations are different when fishing in state waters. The implementation of this provision drastically reduced the fishing days available to the for-hire vessels in comparison to the private recreational anglers. Prior to the implementation of this provision, the for-hire vessels represented greater than 40% of the recreational harvest of red snapper. Since then, the for-hire harvest or red snapper has continually decreased and represented less than 20% of all recreational landings in 2013 (GMFMC 2014a).

In April 2014, the Council requested staff to begin development of an action to examine the potential for an IFQ-type program for for-hire vessels in the Gulf. The Council reviewed a scoping document in response to the request, but did not take further action at that time.

At its October 2014 meeting, the Council approved **Amendment 40** (GMFMC 2014) which divided the recreational quota into a for-hire component quota (42.3%) and a private angling component quota (57.7%) for the recreational harvest of red snapper. The 2015 season closures for the recreational harvest of red snapper were determined separately for each component based on each component's ACT. **Amendment 40** also included a 3-year sunset provision on the separation of the recreational sector into distinct components.

In January 2015, the Council broadened its direction to staff regarding the development of an IFQ-type program for for-hire vessels, to make recommendations relative to the design and implementation of a more flexible management strategy for the for-hire component. Concurrently, the Council initiated separate amendments to address management of charter vessels (**Amendment 41**) and headboats (**Amendment 42**) as sub-components of the federal for-hire component. This document has been developed in response to this request, and provides potential options for a management strategy for the harvest of red snapper by charter vessels.

Additional actions being developed pertaining to the federal for-hire component of the recreational sector include **Amendment 28**, **Amendment 39**, and **Amendment 42**. **Amendment 28** evaluates the red snapper sector allocation and proposes to increase the recreational sector's allocation. **Amendment 39** considers establishing regional management for the recreational harvest of red snapper. This action could remove the separation of the recreational components and manage all federal for-hire vessels under the regional management measures. **Amendment 42** considers management alternatives for the headboats participating in the SRHS for several reef fish species. A complete history of management for the Reef Fish Fishery Management Plan is available on the Council's website[6] and a history of red snapper management through 2006 is presented in Hood et al. (2007).

[6] http://www.gulfcouncil.org/fishery_management_plans/reef_fish_management.php

CHAPTER 2. MANAGEMENT OPTIONS

2.1 Management Approach for Federal Charter Vessels

Traditional management approach:

Option 1: Manage federally permitted charter vessels using fishing seasons and bag limits, alongside the existing minimum size limit and accountability measures.

Allocation-based approaches (fishing privileges distributed to groups):

Option 2: Establish regional fishery associations (RFAs).

Option 3: Establish fishing cooperatives.

Allocation-based approaches (fishing privileges distributed to individuals):

Option 4: Establish a permit fishing quota (PFQs) program.

Option 5: Establish an individual fishing quota (IFQ) program.

Option 6: Establish a fish tag program.

Discussion:

The goals and objectives for the management of charter vessels should guide the selection of an appropriate management approach and corresponding program features. A primary decision point in the development of a charter vessel management plan concerns the management approach to be taken. **Option 1** proposes to continue managing the fishery using traditional management tools (i.e., bag limits, fishing seasons), which primarily control the rate at which fish are caught. In contrast, **Options 2-6** are examples of *allocation-based management*, in which a specified portion of the recreational red snapper annual catch limit (ACL) would be distributed among program participants according to the structure of the program. These allocation-based approaches could be structured in two broad ways: 1) privileges are assigned at the individual level (individual permit holders or vessels); or 2) privileges are distributed to organized groups of program participants (groups of charter vessels), within which fishing privileges are distributed to members (Figure 2.1.1).

The Gulf of Mexico Fishery Management Council (Council) may continue managing charter vessels using seasons, bag limits, and existing accountability measures (**Option 1**). A discussion of these management measures, including options for their potential modification is provided in Sections 2.2 - 2.3. Modifications to the minimum size limit, including options for a slot limit, are not considered here. At its June 2015 meeting, the Council noted the problems associated with establishing different red snapper minimum size limits across the Gulf of Mexico (Gulf). If

the Council is interested in evaluating the federal minimum size limit to be used in charter vessel management, or a slot limit, such an action could be included.

Traditional management (i.e., using bag limits and fishing seasons) is most effective in fisheries that are not experiencing high fishing pressure and for which landings are not required to remain below strict catch limits (Johnston et al. 2007). Currently, the use of traditional management measures allows for an adaptive approach to management as season length and bag limits can be reduced or expanded through the framework action process, based on changes in fishing pressure, activity, and indicators of stock health. Without a valid and reliable system for monitoring landings, management based on such traditional management tools alone may be insufficient to constrain landings to within a fixed catch limit. As a result, accountability measures have been implemented to reduce the likelihood of exceeding catch limits, and to make adjustments in the event a catch limit is exceeded.

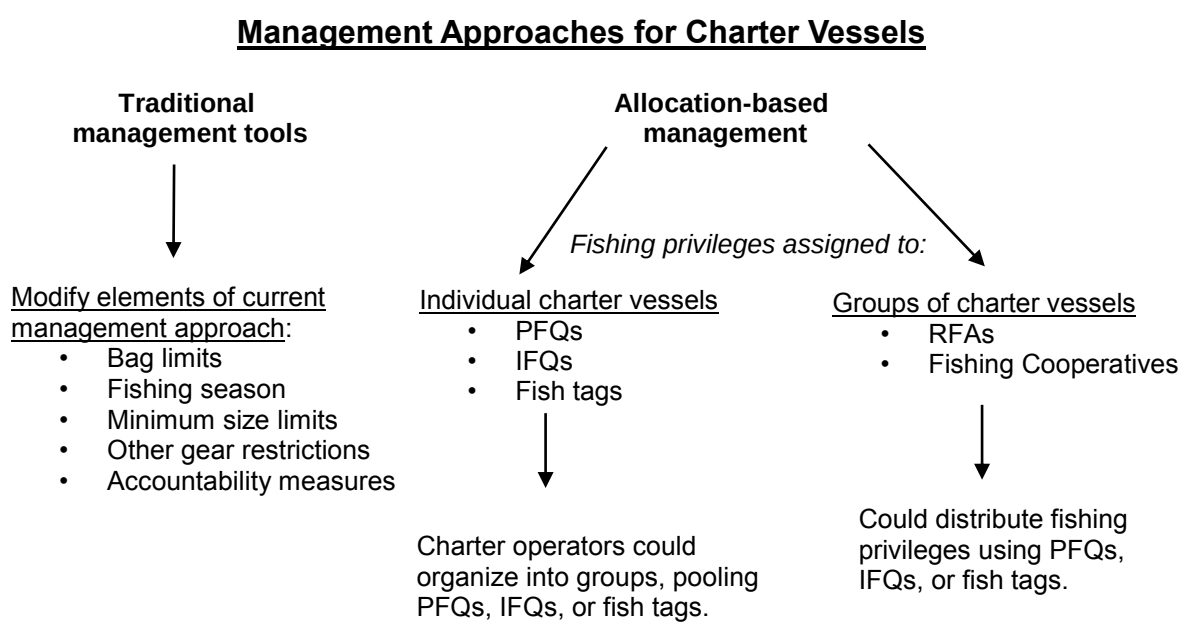

Figure 2.1.1. Diagram of primary decisions in selecting a management approach for charter vessels (Anderson and Holliday 2007).

Allocation-based management programs

In an allocation-based program, the quota for a group is divided among individuals or smaller groups, who can then choose when to use that allocation. Allocation-based management approaches would distribute fishing privileges at the beginning of the fishing year, and are more effective in ensuring that harvest does not exceed a pre-determined amount of allowable catch (e.g., the recreational sector annual catch limit), than using traditional management tools, alone. These types of programs provide greater flexibility to charter vessel operators in terms of when and how they use their portion of the allocated quota. On the other hand, some charter vessel

operators may not be satisfied with the amount of quota they would receive under a given program.

Some allocation-based programs distribute *shares*, which are a set percentage of the quota. If an individual or group holds shares, each year they would receive the amount of pounds representing the percentage of the quota held, which is their *allocation*. The allocation amount changes if the quota changes, but the amount of shares remains the same, unless the transfer of shares is allowed. In other programs the allocation would change from year to year, depending on the quota, changing membership in a group, change in average weight of fish, or other factors. In these cases, shares would not be needed and only allocation would be distributed.

A key difference between the two preceding approaches concerns the permanence of the fishing privileges, which affects the incentive structure and anticipated conservation benefits from distributing limited access fishing privileges (Anderson and Holliday 2007). For example, should shares not be used and the amount of allocation distributed to participating entities varies from year to year, there would be less incentive to maintain, and even less to invest in improvements for the resource in ensuing years (Anderson and Holliday 2007). Regardless of the approach selected, timely reporting is a key element of allocation-based programs; as allocation is used, it must be subtracted from the annual allocation for the individual or group. When each individual or group has used all of its allocation, they must stop fishing or obtain more allocation (if allowed by the program).

Options 2-6 propose several allocation-based management approaches, detailed below. Additional actions would be required to establish such programs and are addressed in Section 2.4.

Regional fishery associations (RFAs) (**Option 2**) are defined in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; 303A(c)(4)) as an association formed for the mutual benefit of members—to meet social and economic needs in a region or subregion; and comprised of persons engaging in the harvest or processing of fishery resources in that specific region or subregion or who otherwise own or operate businesses substantially dependent upon a fishery. Recent guidance on RFAs (Stoll and Holliday 2014) note the purpose of the addition of RFAs to the 2007 reauthorization of the Magnuson-Stevens Act was to "provide additional assistance to … community-based associations to acquire and maintain limited access privileges in LAPP fisheries."

No regional fishery management council has established the process necessary to implement RFAs. Nevertheless, Stoll and Holiday (2014) note that Councils have worked with NMFS to develop similar, but modified programs with less regulatory complexity to address concerns for safeguarding fishing communities and achieve comparable goals. For example, Amendment 42 uses the term, regional fishery organizations, which closely reflect the Magnuson-Stevens Act provisions for RFAs.

In contrast to RFAs, **fishing cooperatives** (**Option 3**) may or may not be geographically based. That is, members may organize themselves around some shared characteristic other than a shared geographical region (e.g., charter vessels with large vessel capacities that are not headboats).

The allocation of red snapper quota among different cooperatives, which are self-organizing groups with varied numbers of members, may be difficult depending on the vessel characteristics within and among each cooperative. It could be possible to combine the use of PFQs, IFQs, or fish tags within a cooperative. For example, following the establishment of an IFQ program and the apportionment of red snapper quota, IFQ holders could easily pool their allocations and form a cooperative (Anderson and Holliday 2007).

Permit fishing quotas (PFQs) (**Option 4**) and **individual fishing quotas (IFQs)** (**Option 5**) are both LAPPs, and could distribute fishing privileges to an individual, business entity, or vessel. A PFQ or IFQ program would likely use shares and allocation to distribute fishing privileges, although the Council would determine such program features in terms of the goals of management. The primary difference between PFQs and IFQs concerns the entity to which harvest privileges are associated. If established, PFQ shares and allocation would be attached to a permit, while IFQ shares and allocation remain separate from the permit. Transferability provisions for shares and allocation of either type of quota program would be addressed in a separate action and include a reasonable range of alternatives.

Fish tags (**Option 6**) could be used as a stand-alone allocation-based approach, or as an enforcement and validation tool in conjunction with another allocation-based program. As a stand-alone program, fish tags would be used for granting harvest privileges and controlling harvest (Johnston et al. 2007). A fish tag program would involve the distribution of physical harvest tags, each of which would allow an angler possessing the tag to retain an individual red snapper per tag. After capture, the tag must be affixed to the fish, thereby identifying the individual fish as legally caught, and preventing the tag from being used to catch additional fish. The number of tags available each year would be determined by the amount of the recreational sector ACL apportioned to the fish tag program, divided by the average weight of red snapper estimated to be caught on charter vessels. Any unused tags at the end of the year would be forfeit, and new tags would be distributed at the beginning of each year.

Tags could be distributed in multiple ways, including equal distribution among participants, or according to criteria such as passenger capacity or regional variability in the abundance of red snapper. Alternately, tags could be distributed through a lottery or auction. The Council would evaluate and determine the features of the program, including methods of distribution and whether tags would be transferable among program participants.

A fish tag program could provide anglers fishing from charter vessels with greater flexibility as to when red snapper could be caught. However, it should not be assumed that all charter vessels would receive a quantity of tags they feel is sufficient to meet their clients' needs.

A key difference among **Options 2-6** concerns the recipient of fishing privileges. Both RFAs and fishing cooperatives would require greater cooperation among members than PFQs, IFQs, or fish tag systems, which are assigned harvest privileges at the individual vessel or permit holder entity level. The selection of additional program features such as the transferability and durability of fishing privileges, will affect the flexibility afforded to program participants and should reflect the goals and objectives for the program.

2.2 Bag Limits

The Council may want to evaluate the bag limit for red snapper on charter vessels. Should the Council intend to continue managing charter vessels with fishing seasons and bag limits, the Council could reduce the red snapper bag limit on charter vessels to 1 fish per person per day. The benefits of reducing the bag limit include reducing fishing pressure by slowing the rate of harvest, and extending the season. Reducing the bag limit could provide for a longer red snapper fishing season, and provide more individual anglers the opportunity to catch and retain a red snapper. However, extending the fishing season is more likely to occur if most anglers on charter vessels are currently catching the bag limit. As an example, previous analyses conducted in January 2013 estimated a 42% reduction in for-hire (charter vessels and headboats) red snapper landings if the bag limit was reduced to one fish.

The drawbacks to reducing the bag limit include increased discards. Also, high-grading to keep larger fish would be expected to occur more often under a smaller bag limit and will contribute to discards, thereby reducing the benefits of a smaller bag limit. Finally, anglers may want to keep more fish and object to a smaller bag limit.

Should the Council select an allocation-based management approach, a bag limit would not be necessary, although it could be a component of such a program. With the allocation assigned to charter vessels for their angler passengers, charter operators may wish to use the available quota in different ways. For example, one charter operator may prefer to provide anglers with access to one fish per trip, thereby increasing the number of anglers able to retain a red snapper, while other operators may have angling customers who prefer two fish per trip.

2.3 Fishing Seasons

Currently, the red snapper fishing season for each component begins on June 1 and closes when the corresponding component's annual catch target (ACT) is projected to be met. Modifying the fishing season, or structure of the fishing season, is another management option for charter vessels. The Council could consider alternate start dates for the red snapper fishing season. For example, opening the season on April 1 could allow charter vessels to provide red snapper fishing trips to spring break visitors.

Another option is to establish a split season, which could improve accountability as the second season would be contingent on landings from the first season. For example, the Council could establish an initial charter vessel fishing season, the length of which is based on the projections for landing a proportion of the quota assigned to charter vessels. For an initial season starting June 1, the season would end when a specified proportion of the charter vessel quota (e.g., options could be 50%, 60%, etc., and would be reduced by the established ACT) is projected to be caught. After the landings are determined from the initial season, the fishing season could be reopened, with the second season's length determined by the remaining amount of quota. A split season could reduce the likelihood of a quota overage, especially while charter vessel landings are estimated through the Marine Recreational Information Program (MRIP). The Council is currently developing an electronic reporting program for charter vessels that will improve

accountability and reduce the likelihood of a quota overage. While landings estimates from MRIP are available two months following each wave, electronic reporting by charter vessels would greatly improve the timeliness of obtaining landings data and monitoring the quota.

Potential benefits could result from establishing the season during the most desirable time for anglers, including Gulf Coast visitors, or establishing the season to avoid times of inclement weather. The drawbacks to modifying the fishing season include regional differences in the optimal start of the season. For example, tourist seasons and times of inclement weather do not occur at the same time around the Gulf. Also, shifting the fishing season to time periods when red snapper effort is lower would increase the season length, but shifting the fishing season to when effort is greater (optimal conditions) would shorten the length of the season.

2.4 Allocation-based Management & Limited Access Privilege Programs (LAPPs)

The Magnuson-Stevens Act provides the Councils with flexibility in the type and design of limited access privilege programs (LAPPs) and provides guidelines for the different types of programs. The most recent reauthorization of the Magnuson-Stevens Act expanded the flexibility in the design of such programs, specifically pertaining to the recipients of the limited access privileges (Anderson and Holliday 2007), which may be distributed to individual entities or groups.

According to the Magnuson-Stevens Act, the term '**limited access system**' means a system that limits participation in a fishery to those satisfying certain eligibility criteria or requirements contained in a fishery management plan or associated regulation. Federally permitted for-hire vessels in the Gulf are managed under a limited access system in which there are a finite number of valid and renewable charter/headboat permits for reef fish. In contrast, the private angling component is not a limited access system; it remains open access.

According to the Magnuson-Stevens Act, the term '**limited access privilege**' means a Federal permit, issued as part of a limited access system under section 303A to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person and includes individual fishing quotas. In designing a LAPP, the Council is advised to use the National Standards, other applicable law, and the management objectives of the particular fishery management plan as the criteria in the selection of a LAPP (Anderson and Holliday 2007). The options for allocation-based management would all involved dividing the quota in some way among participants, but not all allocation-based management approaches would be classified as LAPPs under the terms of the Magnuson-Stevens Act.

Potential Sub-actions for an Allocation-based Program

Should the Council intend to further evaluate one of the allocation-based approaches under **Options 2-6**, the scope of actions to consider would, to a large extent, reflect the range of actions included in the commercial red snapper and the grouper and tilefish IFQ programs in the Gulf. For example, a charter for-hire PFQ program for red snapper would include actions with alternatives for the metrics to use for establishing the eligibility of participants and the distribution of fishing privileges to program participants, among several others. These potential actions may include the following:

Program Duration – The Council could consider setting a time limit for the charter vessel management program, or the program could be amended or terminated with cause in a subsequent regulatory action. Should this amendment result in the establishment of a LAPP, a detailed review would be conducted five years after implementation of the program (Magnuson-Stevens Act 303A(c)(1)(G)). The Council put a sunset on the establishment of the federal for-hire component of the recreational sector, at which time the separate management of the recreational components will end unless further action is taken by the Council.

Program Eligibility – In July 2015, there were 1,250 charter vessels and 68 headboats possessing valid or renewable federal reef fish for-hire permits. These 1,250 charter vessels possessing federal reef fish for-hire permits would constitute the universe of eligible program participants, and was also recommended by the Ad Hoc Red Snapper Charter For-hire AP (Charter AP).

Initial Apportionment – The Council would need to determine the method(s) for the initial apportionment of fishing privileges in an allocation-based management approach. Detailed landings histories are available for vessels participating in the Southeast Region Headboat Survey, but such information does not exist for charter vessels. As a result, individual vessels' catch histories cannot be used to apportion the shares between participants. For commercial IFQ programs, annual IFQ allocation are measured in pounds of fish. However, instead of basing annual allocations on pounds of fish, the Council may decide to distribute annual allocations in number of fish.

In the event a LAPP is developed, the Council shall consider, and may provide, if appropriate, an auction system or other program to collect royalties for the initial, or any subsequent, distribution of allocations in a limited access privilege program (Magnuson-Stevens Act 303A(d)).

Ownership Caps – The Magnuson-Stevens Act precludes any individual, corporation, or other entity from acquiring an excessive share of such privileges. The Council should establish share caps to prevent any entity from acquiring an excessive share of fishing privileges. Allocation caps may also be considered.

Transferability Provisions – Should an allocation-based management approach be selected, the Council will determine whether fishing privileges may be transferred among program participants, and the limitations of any such transferability of fishing privileges.

Appeals Process – Following the initial apportionment of quota in an allocation-based management approach, some eligible participants may be wrongfully omitted from the initial distribution or may receive less than the initial allocation they were entitled to. An appeals process would be needed to correct these oversights.

Cost Recovery Fees – The Magnuson-Stevens Act requires that LAPPs established by a Council include a program of fees paid by limited access privilege holders to cover the costs of management, data collection and analysis, and enforcement of the LAPP. In a potential charter for-hire allocation-based program, red snapper harvested by recreational anglers do not have an explicit ex-vessel value because the fish cannot be sold. The Council would have to select a proxy to be used to compute the fees and determine the modalities for sending collected funds to NMFS.

Restrictions on the Use of Shares or Allocation – The Council may wish to establish restrictions on the use of shares or allocation. If the Council decides that all (or a portion of) fishing privileges granted under an allocation-based program are meant to be fished by the recipients, it may consider the establishment of such provisions.

Referendum Provisions – As mandated by the Magnuson-Stevens Act, a federal for-hire IFQ program in the Gulf of Mexico must be approved by a majority of those voting in the referendum among eligible permit holders. Depending on the management approach selected by the Council, NMFS will determine whether a referendum is required.

Additional Considerations

Section 407(d) – The establishment of a charter vessel LAPP would not exempt the federal for-hire component from the requirements of section 407(d) of the Magnuson-Stevens Act which requires that red snapper recreational fishing be halted once the recreational sector ACL is caught. If established, some participants in the selected program may have to forgo remaining annual allocation and lose fishing opportunities because the red snapper quota is caught. Therefore, benefits expected to result from a charter vessel LAPP may be limited by this provision in the Magnuson-Stevens Act.

Dual-permitted vessels – At the end of 2014, 229 federal for-hire operators (including charter vessels and headboats) were dual-permitted, i.e., they possess a valid or renewable commercial permit and federal for-hire permit for reef fish. This number has increased in recent years; in September 2011, there were 154 vessels possessing both a commercial and for-hire reef fish permit. These dual-permitted operators own varying amounts of commercial red snapper IFQ shares. The Council would have to determine whether IFQ shares held by dual-permitted vessels may or may not be used in an allocation-based charter vessel program.

Additional program requirements – Requirements of commercial IFQ programs in the Gulf include vessel monitoring systems, hail-out and hail-in (with 3 hours notifications), landings at approved sites. The Council would determine which requirements would be practicable and useful for the administration and enforcement of the for-hire IFQ program.

Accountability Measures – A joint amendment to require electronic reporting by charter vessels is currently under development by the Gulf and South Atlantic Councils. The purpose of the amendment is to improve the monitoring of charter vessel landings, thereby reducing the likelihood of exceeding the recreational sector ACL. In the future, it may be possible to reevaluate the buffer applied to the recreational sector ACL and make adjustments that better reflect the reduced uncertainty associated with charter vessel landings.

Finally, the Charter AP made several recommendations to the Council concerning their preferred management approach and related program design features. The summary report from the Charter AP meeting including its recommendations is provided in Appendix B.

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APPENDIX A. DEFINITIONS OF CHARTER VESSELS AND HEADBOATS IN THE FEDERAL REGULATIONS

Federal regulations (§ 622.2) define charter and headboat vessels as follows:

"*Charter vessel* means a vessel less than 100 gross tons (90.8 mt) that is subject to the requirements of the United States Coast Guard (USCG) to carry six or fewer passengers for hire and that engages in charter fishing at any time during the calendar year. A charter vessel with a commercial permit, as required under § 622.4(a)(2), is considered to be operating as a charter vessel when it carries a passenger who pays a fee or when there are more than three persons aboard, including operator and crew. However, a charter vessel that has a charter vessel permit for Gulf reef fish, a commercial vessel permit for Gulf reef fish, and a valid Certificate of Inspection (COI) issued by the USCG to carry passengers for hire will not be considered to be operating as a charter vessel provided—

(1) It is not carrying a passenger who pays a fee; and (2) When underway for more than 12 hours, that vessel meets, but does not exceed the minimum manning requirements outlined in its COI for vessels underway over 12 hours; or when underway for not more than 12 hours, that vessel meets the minimum manning requirements outlined in its COI for vessels underway for not more than 12-hours (if any), and does not exceed the minimum manning requirements outlined in its COI for vessels that are underway for more than 12 hours."

"*Headboat* means a vessel that holds a valid Certificate of Inspection (COI) issued by the USCG to carry more than six passengers for hire.

(1) A headboat with a commercial vessel permit, as required under § 622.4(a)(2), is considered to be operating as a headboat when it carries a passenger who pays a fee or—(i) In the case of persons aboard fishing for or possessing South Atlantic snapper-grouper, when there are more persons aboard than the number of crew specified in the vessel's COI; or (ii) In the case of persons aboard fishing for or possessing coastal migratory pelagic fish, when there are more than three persons aboard, including operator and crew."

APPENDIX B. REPORT FROM THE AD HOC RED SNAPPER CHARTER FOR-HIRE ADVISORY PANEL

Ad Hoc Red Snapper Charter For-Hire Advisory Panel Summary
May 13, 2015
Gulf Council Conference Room
Tampa, Florida

AP members present:
Jim Green, Chair
Tom Steber, Jr., V Chair
Gary Bryant
Shane Cantrell
Mike Eller
Troy Frady
Chuck Guilford
Gary Jarvis
Mark Kelley
Tom Marvel, Jr.
Mike Nugent
Rene Rice
Scott Robson
Ed Walker
Troy Williamson, II

Council Member & Staff:
Johnny Greene
Ava Lasseter
Karen Hoak
Bernie Roy
Assane Diagne
Carrie Simmons
Doug Gregory

Others:
Steve Branstetter
Andy Strelcheck
Jessica Stephen
Cynthia Meyer
Bob and Cathy Gill
Kristen McConnell
Tom Wheatley
Jeff Barger
Betty H. (Guilford)

The Ad Hoc Red Snapper Charter For-Hire Advisory Panel (AP) meeting was convened at 8:30 a.m. on Wednesday, May 13, 2015. Jim Green was elected Chair, and Tom Steber was elected Vice Chair.

Staff reviewed the charge to the AP, which was to make recommendations to the Council relative to the design and implementation of flexible measures for the management of red snapper for the for-hire sector. AP members began discussing data collection for the charter fleet including the status of the Joint Generic Charter Vessel Reporting Amendment and passed the following motions:

- **To recommend that the Council review the current data collection programs. If current data collection methods are not sufficient to support a flexible and accountable system, we urge the Council to develop data collection and monitoring needs for these programs to be successful.**

- **Ask the Council to implement electronic log books for the Gulf charter for-hire reef fish permit holders, including validation tools, no later than June 2016.**

- **To recommend that the Council do a feasibility study for the gulf charter-for-hire reef fish permit holders to see about the practicality of incorporating the for-hire data collection into the headboat program.**

Panel members noted the work they are doing to develop a management plan for the charter fleet at this meeting, and they expressed the need for more time to develop, implement, and then evaluate the effects of any new management plan. They want to provide recreational anglers the opportunity to experience a new management plan before the sunset occurs, too. The AP passed the following motions:

- **To recommend that the Council extend the sunset of Amendment 40 for two years.**

- **Recommend the Council remove the charter for-hire component from Amendment 39.**

AP members discussed management approaches and focused on allocation-based management. The concept of permit fishing quotas, or PFQs, was introduced and discussed. In contrast with individual fishing quotas (IFQs), the quota under PFQs would be attached to the federal permit and could not be transferred in any way from the permit. AP members noted that the transferability of IFQ shares and allocation in the commercial red snapper program was not a desirable program feature for allocation-based management of the charter fleet. AP members expressed opposition to the transferability of any kind of quota under an allocation-based management approach.

Tags were discussed as a desirable tool to help the charter fleet remain within its quota and aid in enforcement. AP members stated the tags should not be able to be separated from the charter permit and vessel. That is, tags could be used, or not used, by the permitted vessel to which they were assigned, but they could not be "leased" or sold. AP members then passed the following motions:

- **To recommend the Council develop a plan for allocation-based management for the charter-for-hire component that can include but not be limited to such items as PFQs (permit fishing quotas), tags, cooperatives, and AMOs (angler management organizations).**

- **To define PFQs (permit fishing quotas) as presented to the Council:**
  - **Reef fish permit-based allotment that remains attached to the permit not the individual**
  - **No transferability, leasing, or selling of the allocation**
  - **Fish must be landed by the vessel that the permit is attached to**
  - **Annual opt-in to participate in the federal red snapper fishery**

Jessica Stephen noted that PFQs are used in the Pacific bluefin tuna longline fleet. The quotas are assigned to a permit based on its vessel landings history, and are permanently attached to the permit. The allocation can be transferred under some conditions.

The AP discussed the potential progress of their recommended management plan, and staff noted that the Council has initiated development of Amendment 41 to address red snapper management for the charter for-hire component. AP members then passed the following motion:

- **To recommend that the Council specify that Amendment 41 be reviewed five years after implementation to assess the extent to which it is meeting its goals.**

Speaking to the accountability measure that set a 20% buffer on the red snapper quota, AP members expressed that if the fleet could adopt a management plan that enables them to demonstrate the ability to remain within the quota, the 20% buffer could potentially be decreased or even eliminated. A member noted that a goal for the fleet was to have the possibility of a year round fishery that is totally accountable. The AP then passed the following motion.

- **To recommend to the Council that the purpose of Amendment 41 is to increase flexibility for permit holders, to decrease management uncertainty, and increase accountability to catch limits. A long term goal to have a year round fishery that is totally accountable.**

AP members began to discuss qualifications for participating in a new charter for-hire management plan. AP members discussed a series of participation qualifiers, by which vessels intending to participate in the charter red snapper management plan could be identified and separated out from latent charter permits, and from vessels in regions where red snapper are infrequently encountered. AP members passed the following motions:

- **To recommend that the management plan be open to all federal charter-for-hire reef fish permit holders.**

- **To recommend to the Council that the plan be structured so that permit holders who intend to participate in an allocation-based management plan, annually opt-in to the program for the purpose of identifying the user group for that year.**

- **To recommend the Council consider how the cost of any new program will be shared between the charter for-hire industry and NMFS, under an opt-in scenario.**

The use of tags by participating vessels was discussed as a way to validate all fish caught under the management plan. AP members noted how tags are used in the Headboat Collaborative program. A Collaborative participant stated that tags helped identify that the fish were caught legally. For example, if headboat passengers take their red snapper catch to cleaning stations in public places, law enforcement would be able to determine easily that the fish were caught legally. Concerns about the use of tags included how they would be distributed, or allocated, and the physical properties of tags so as to avoid tampering. The AP then passed the following motion:

- **To recommend all participating vessels in the management plan use carcass tags that could be validated for law enforcement which will be distributed at the beginning of the year. Tags will expire at the end of the year, to validate all fish harvested under this plan.**

There was discussion concerning the use of an independent body such as the Harte Institute for administration of the chosen plan. However, AP members and NMFS staff noted the additional complexity, as such administration would still require NMFS to be involved, in addition to requiring a federal contract, which would increase costs compared with in-house administration by NMFS.

Next, AP members discussed options for distributing allocation fairly among federal charter for-hire permit holders and noted their intent not to exclude anyone. They noted that defining fair and equitable depends on where you are in the Gulf and it can be defined in different ways. Without vessel catch histories, one member noted that dividing the quota up evenly was the only way to be fair, while another member questioned this method as red snapper is not accessible to charter vessels in all areas of the Gulf. Further discussion addressed the use of electronic logbooks. The AP passed the following motions.

- **To recommend the Council pursue allocation options that include all federal charter-for-hire reef fish permit holders.**

- **To recommend to the Council that all participants in the management plan report using electronic log books with dockside validation.**

Continuing the discussion on landings validation, an AP member noted that currently, a charter captain can refuse to participate in dockside intercept surveys and this should not be permitted in a new management plan. The AP members want enforcement measures to require compliance with the new charter management plan, including modifying NOAA law enforcements' penalty schedule, if at all possible, and requiring charter operators to participate in dockside intercept surveys. The AP then passed the following motion:

- **To recommend to the Council that opt-in participants are subject to dockside intercepts and validated landings by local or federal law enforcement at any time. Any vessel found in violation would be subject to NOAA law enforcement sanctions.**

AP members further discussed potential qualifiers for participation in the charter for-hire red snapper management plan. The idea of qualifiers was proposed as a way to identify active versus latent permits, and vessels that actively fish for red snapper versus those charter vessels that do not. For example, a federally permitted vessel that does not have the corresponding state licenses to be actively charter fishing, could be considered inactive in red snapper fishing. However, it was noted that the Gulf States have different requirements for federally permitted charter vessels, which could complicate identifying latent permits Gulf-wide. AP members passed the following motion:

- **As a qualifier to participate, the participant must meet all licensing requirements for his/her state of operation.**

The AP discussed the use of quota on dual-permitted (charter and commercial) vessels under an allocation-based management plan, and passed the following motions:

- **After implementation of the plan, that there be no inter-sector (commercial and recreational) trading permitted.**

- **That any allocation granted to a permitted vessel may only be used during charter-for-hire trips.**

Next, the AP discussed allocating quota among charter vessels and passed the following motions:

- **To recommend that the allocation tier level be based on permit capacity but no greater than approved passenger capacity.**

- **To recommend that the Council consider the following allocation scenario to divide the quota among participating vessels:**
  - **6 passenger vessels = 1 allocation/share**
  - **Multi passenger COI vessels with permit capacity of 7 to 24 = 2 allocations/shares**
  - **Multi passenger COI vessels with permit capacity of 25 or more = 3 allocations/shares**

- **To recommend to the Council that for apportioning the quota between charterboats and headboats, to use the time frame formula from Amendment 40 (50% 1986-2013 + 50% 2006-2013 excluding landings from 2010).**

AP members expressed their preference not to hold an AP meeting from June through August 20, due to the busy fishing season, and passed the following motion.

- **To recommend that the Council reconvene this panel to provide further advice on charter-for-hire program development as soon as possible.**

The AP returned to discuss other allocation-based management approaches including AMOs and cooperatives. One member liked AMOs because they would involve management at a more local level, while another expressed concern with having an individual manager of each AMO decide how quota should be divided up. AP members reiterated support for tags and PFQs, and passed the following motion:

- **To recommend to the Council to adopt as the preferred management plan the use of PFQs with tags.**

AP members discussed the issue of "stacking" or "marrying" reef fish permits as undesirable for the charter management program. They also discussed that not all charter operators who opt-in may want or be able to use the amount of quota that may be allocated to their vessel, especially if

the vessel is homeported in an area without abundant red snapper. The AP passed the following motions:

- **To recommend the Council not allow stacking or consolidating of reef fish permits.**
  - **Stacking of charter permits is defined as putting multiple permits on one vessel**
  - **Consolidation of charter permits is defined as consolidating two or more permits to one permit which contains the catch history of both permits**

- **To recommend to the Council, to allow the participant in the program to opt-in at the level of allocation the participant chooses, up to the maximum amount of the participant's allocation.**

Following review of their recommendations, the AP meeting was adjourned at 3:00 pm.

Failed motions:

Motion: To recommend the Council consider using an independent body, such as the Harte Institute for administration of the chosen plan.

Motion failed with one in support.

Back

Gulf Recreational Red Snapper Workshops Summary

Florida Fish and Wildlife Conservation Commission

Workshop Attendance:

7/28/14 – Pensacola – 24

7/29/14 – Destin – 41

7/30/14 – Panama City – 8

7/31/14 – Carrabelle – 24

8/11/14 – St. Petersburg – 42

FWC Staff Present: Jessica McCawley, Jim Estes, Martha Bademan, Luiz Barbieri, Tony Bresnen, Dan Ellinor, Rich Abrams, Steve Shea (Destin and Carrabelle), Michelle Semsprott (Panama City), Tom Graef (St. Pete), Nancy Sheridan (St. Pete), Gina Russo (St. Pete)

Commissioners Present: Bo Rivard (Panama City), Charles Roberts (Carrabelle)

Workshop Summary

The Florida Fish and Wildlife Conservation Commission (FWC) held a series of Gulf of Mexico red snapper public stakeholder workshops to discuss state and federal management of recreational red snapper, and to explore potential future approaches to managing this fishery. Each workshop began with a presentation from FWC staff on the biology, management history, and options being considered by the Gulf of Mexico Fishery Management Council (Council) for red snapper. Questions were allowed during the power point presentation.

After the presentation, workshop attendees were split into small groups to list their expectations for the red snapper fishery and management methods or regulations they would like to see in place for the fishery. The following pages contain a summary of the ideas gathered from stakeholders at each workshop.

Breakout Group Question #1: Considering limitations and management challenges, what are your expectations for the recreational red snapper fishery?

Pensacola

- More stability in fishing seasons for planning trips
- Catch bigger fish in the future
- Have fish available for future generations

- Have a large, consistent stock throughout the Gulf

Destin

- Opportunity for the charter-for-hire industry to book red snapper trips
- Increased fishing opportunities for private anglers and for-hire fishermen
- More stability in fishing seasons for planning trips
- More equality between commercial, private recreational, and for-hire fishermen
- Have flexibility in fishing days

Panama City

- More stability in fishing seasons for planning trips

Carrabelle

- More fish available to harvest
- More fishing days, especially in the spring and fall
- Sustainable harvest in the future
- More predictability when seasons are selected
- Effective predator control (sharks, goliath grouper, dolphins)

St. Pete

- Maximize harvest (increased bag limit) of red snapper as the stock continues to grow
- Improve trust between fishery managers and stakeholders by using plain language when reporting scientific information
- Equitable access to red snapper across the Gulf
- Increased flexibility in setting and modifying regulations

Breakout Group Question #2: What management methods or regulations would you like to see implemented to improve the recreational red snapper fishery?

Pensacola

- Manage by depth – have the state manage red snapper out to 180 feet
- 2-day trip limits should be allowed
- Increase the number of fishing days and increase the bag limit
- Explore a "first fish caught" concept to eliminate discards
- Begin the season in May and have several smaller seasons throughout the year such as a fall season in September/October
- Have the season occur outside of peak spawning
- Have large rolling closed areas in the Gulf
- Remove the federal government from management or implement regional management independent of NOAA Fisheries

- Manage all reef fish as a single stock and have a single reef fish bag limit
- Implement an easy to use reporting system to improve recreational data collection using options such as fish tags, a phone app, or stamp
- Validate the size/biomass of the pre-exploited red snapper stock
- Be more transparent with the collection and publishing of data
- Establish a way for anglers to contribute to funding red snapper research
- Consider other stakeholder groups in management decisions, like tackle stores
- Comments were submitted in favor of and against a slot limit
- Comments were submitted in favor of and against sector separation; those in favor of sector separation wanted 3 separate sectors: commercial, for-hire, and private
- Comments were submitted against a 1-fish bag limit
- Comments were submitted against a days at sea program
- Comments were submitted against a hook size requirement
- Modify the Magnuson-Stevens Fishery Conservation and Management Act (MSA), removing accountability measures from the recreational sector and implementing fairness for all fishing sectors
- Manage the recreational sector in numbers of fish and not pounds
- Revisit recreational/commercial allocations
- Don't allow commercial IFQ holders to sell quota
- Manage recreational and commercial together (no separate quotas)
- Simplify regulations

<u>Destin</u>

- Invest in more artificial reefs to provide additional habitat
- Have a 6 month (or year-round), 2-fish per person season
- Have a spring and a fall season
- Have the season occur outside of peak spawning
- Have better enforcement and create "check stations" for enforcement to check boats
- Punish poachers with larger penalties and fines
- Accountability for the whole recreational sector
- Improved science and data collection for the recreational fishery
- Improve recreational data collection through reporting after every trip, electronic logbooks, or a stamp program
- Consider vessel monitoring systems for all vessels fishing for red snapper
- Have a tag program for private anglers and charter for-hire vessels that could function like alligator tags
- More frequent stock assessments
- Comments were submitted in favor of and against a slot limit
- Comments were submitted against weekend-only seasons,
- Comments were submitted against intersector trading

- Comments were submitted in favor of sector separation and for-hire IFQs if the IFQ is tied to the federal permit and non-transferable
- Revisit recreational/commercial allocations every 5 years
- Fair management of all fishing sectors
- Simply the Gulf Council/federal process
- Remove the federal government from management
- Raise red snapper in hatcheries to release later to supplement wild populations
- Base harvest seasons on Florida boat registration numbers; odd numbers fish odd days, even numbers fish even days

Panama City

- Convert the red snapper recreational quota into numbers of fish
- Have a 6 month, 1 fish per person season
- Have a spring and fall season in the Panhandle
- Consider weather days when setting seasons
- Do not encourage anglers to target red snapper during peak spawning
- Comments were submitted against a weekends-only season
- Implement regional management and have a regional approach within Florida (a Panhandle season and a West Florida season)
- Comments against Florida taking over management in federal waters
- Repeal the "30B" rule, which prohibits federally-permitted for-hire vessels from harvesting red snapper in open state waters when federal waters are closed
- Eliminate Section 407(d) of the MSA which requires the recreational red snapper fishery in the Gulf to close when the quota is projected to be met
- Manage all reef fish under one season
- Keep the first 2 reef fish caught (not limited to red snapper)
- Lower the size limit to reduce discards
- Improved recreational data collection
- Improved surveys to see how many anglers fish offshore in the Gulf
- A way to confirm landings and the accountability of anglers (to prevent anglers from taking multiple trips in a day)

Carrabelle

- Use a tagging system or survey to collect more accurate recreational data, and increase the number of dockside angler intercepts
- Allow anglers to donate to red snapper research
- Accurate stock assessments
- Manage red snapper using a combination of depth and season (like the shallow-water grouper closure)

- Eliminate all fishing outside of 20 fathoms during peak spawning for gag and red snapper
- Have a spring and fall season
- Manage all reef fish under one season
- Increase the minimum size limit
- Have a 4-fish per person per day daily bag limit
- Allow recreational fishermen to sell catch to licensed fish houses
- Increased red snapper habitat through more artificial reefs
- Convert the red snapper recreational quota into numbers of fish
- Eliminate discards from commercial fishermen
- Raise red snapper in hatcheries to release later to supplement wild populations
- Comments were submitted both in favor and against sector separation
- Comments submitted in favor of a weekends-only season
- Manage recreational and commercial together (no separate quotas)
- Simplify or reduce regulations

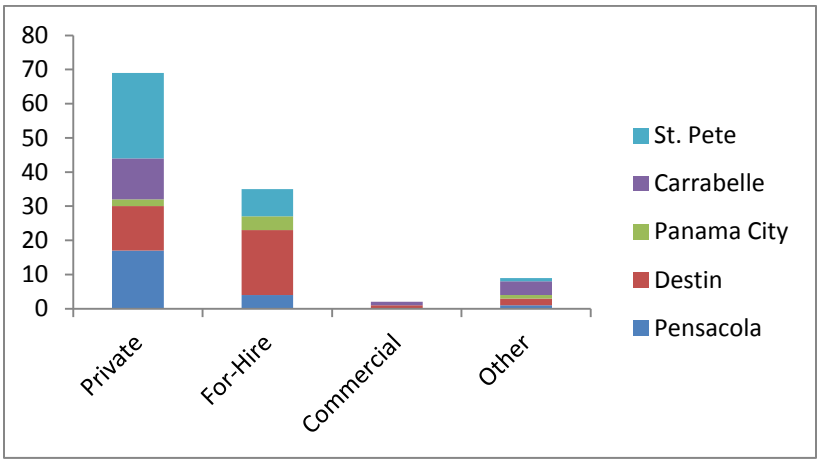
St. Pete

- More equitable fishing days between state and federal seasons to allow anglers off Southwest Florida more fishing opportunities
- Implement regional management and have a regional approach within Florida (Panhandle season and West Florida season)
- Mandatory reporting of red snapper harvest through a phone application
- Have a 6 month red snapper season with a 2-fish bag limit
- Have the option to choose days to fish
- Have a fall season
- Take into account fishing days lost due to bad weather
- No more non-compliant seasons – have state and federal consistency
- If the recreational quota is not met one year, the next year's quota should be increased by the amount of the remaining quota
- More accurate, accountable data that captures landings by private recreational fishermen and fishing tournaments
- Use a tagging system, survey, or phone app to collect more accurate recreational data
- Create a trophy catch program which would also function as a reporting system
- More accurate stock assessments with reliable catch estimates
- Make changes to the MSA to make each state's season not impact other states
- Repeal the "30B" rule, which prohibits federally-permitted for-hire vessels from harvesting red snapper in open state waters when federal waters are closed
- More stakeholder representation in decision-making
- Have the state propose proven traditional management options (like size and bag limits)

- Increase the minimum size limit
- Keep all fish caught to eliminate discards
- Effective predator control (sharks, goliath grouper, dolphins)
- Modify recreational/commercial allocations by completing Amendment 28 and look into economic impacts of allocations
- Follow National Research Council recommendations by defining the universe of anglers
- Comments were submitted against sector separation
- Comments were submitted against a charter for-hire IFQ
- Comments were submitted against hook size requirements
- Comments were submitted against intersector trading
- Comments were submitted against weekends-only seasons
- Look into managing the stock using more catch per unit effort information
- Consider the retrieval rate on fishing reels as a way to reduce barotrauma

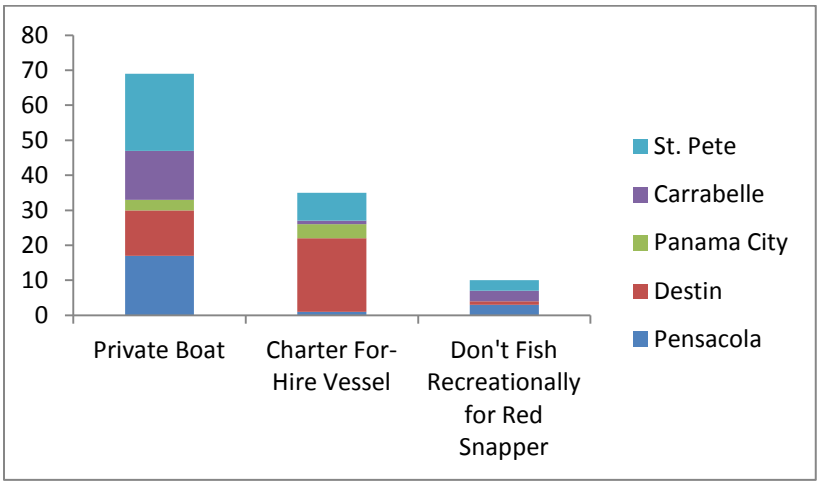
After the small group session, FWC staff polled workshop attendees on demographics information, management options being considered by the Council, and management ideas discussed during the workshops. Below are the responses we received from attendees on each topic or question.

1) Sector Identification of Workshop Attendees



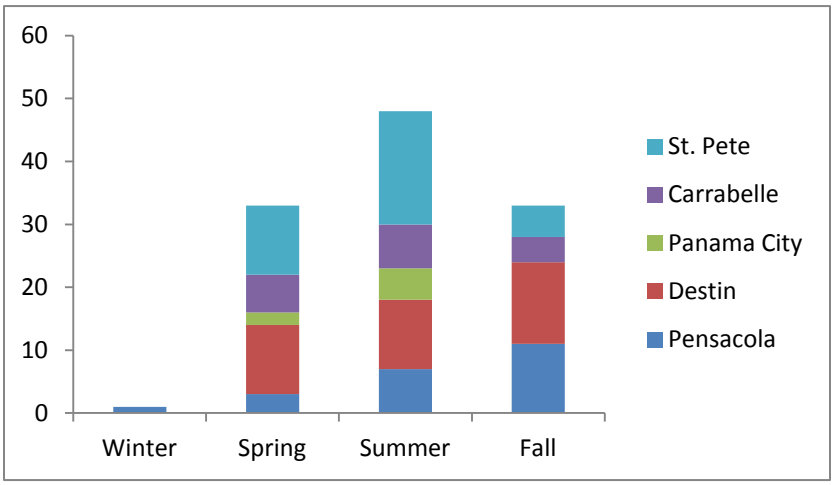
Most workshop attendees identified themselves as private recreational anglers.

2) As an Angler I Most Often Fish for Red Snapper on A……



Similar to the responses above, most workshop attendees fish for red snapper on private recreational vessels.

3) What is the Best Time of Year for Red Snapper Season?

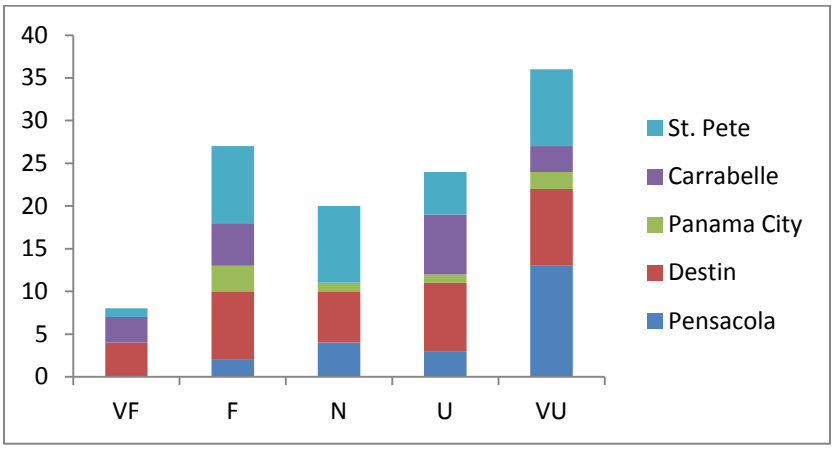


The response to this question was mixed, with winter being the only time of year workshop attendees didn't desire for red snapper season.

The next set of questions was focused on workshop attendees' views of red snapper management options currently being considered by the Gulf Council. For each management option, attendees were asked to rate each option on a continuum from Very Favorable (VF) to Very Unfavorable (VU).

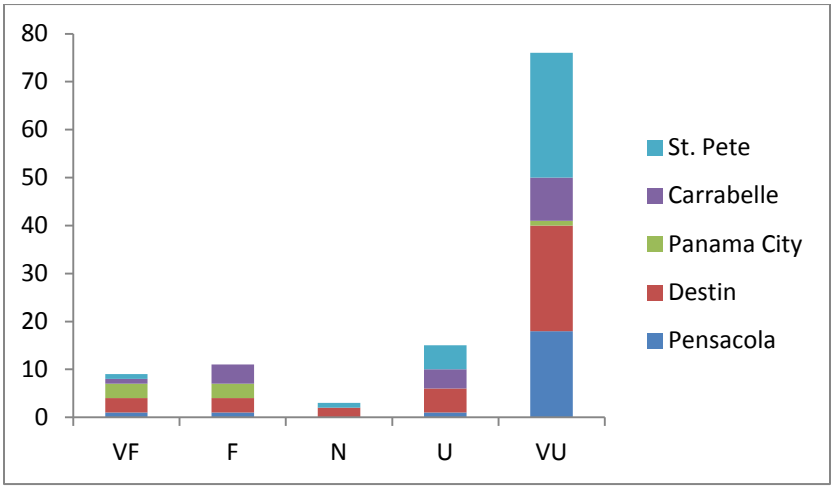
Key:
VF – Very Favorable
F – Favorable
N – Neutral
U – Unfavorable
VU – Very Unfavorable

4) Implement a Slot Limit for Red Snapper



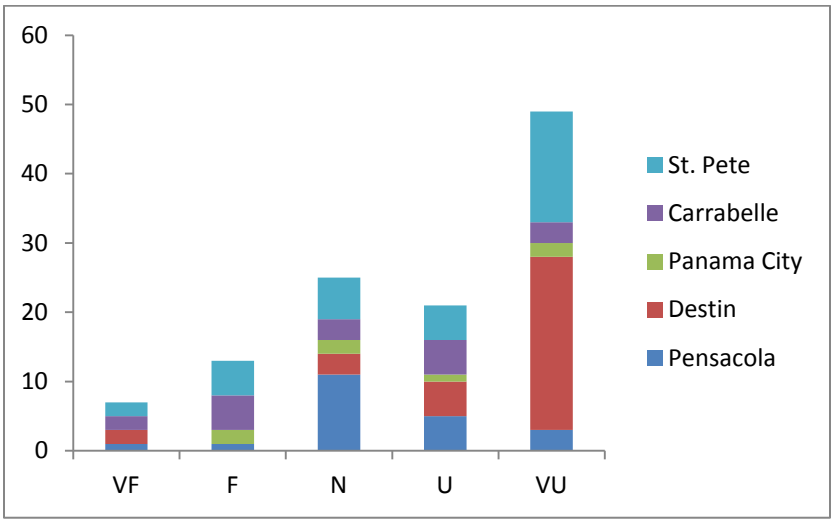
The response to this management option was mixed, but overall more votes were cast as "unfavorable" or "very unfavorable."

5) Implement a One-Fish Bag Limit for Red Snapper



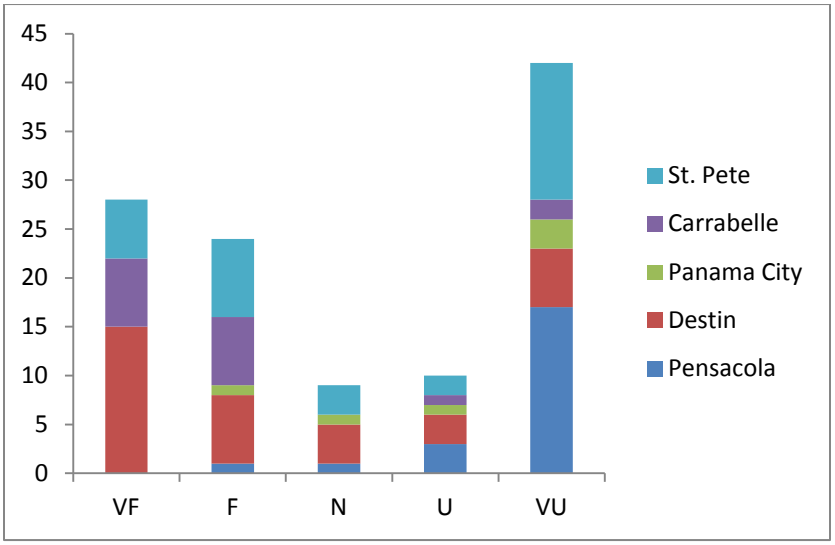
This option was viewed as very unfavorable at all 5 workshops.

6) Have Weekends-Only Seasons for Red Snapper



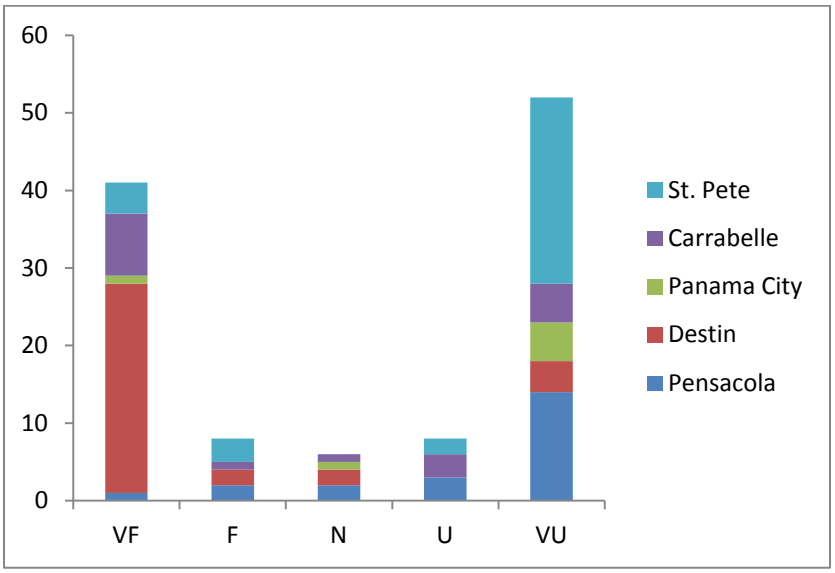
This option received mixed responses, but overall most votes were cast as "very unfavorable."

7) Implement a Tagging System for the Recreational Red Snapper Fishery



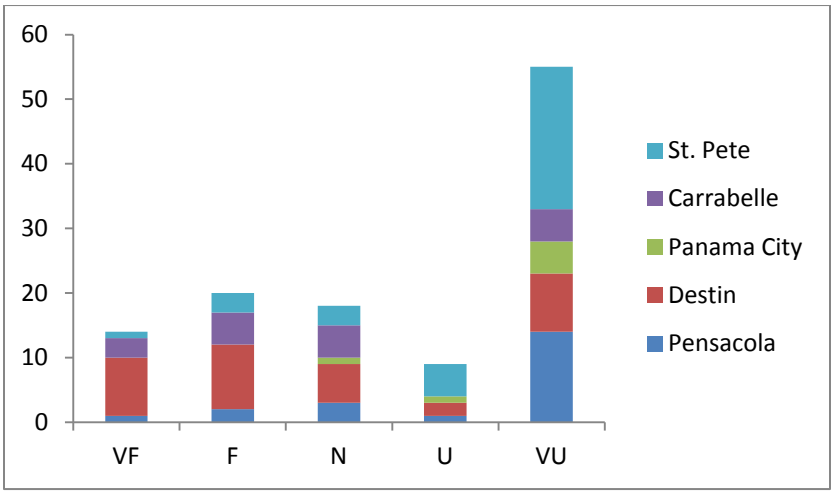
The response to this option was generally mixed, however "very unfavorable" received the most votes.

8) Separate the Recreational Sector for Red Snapper into 2 Subsectors



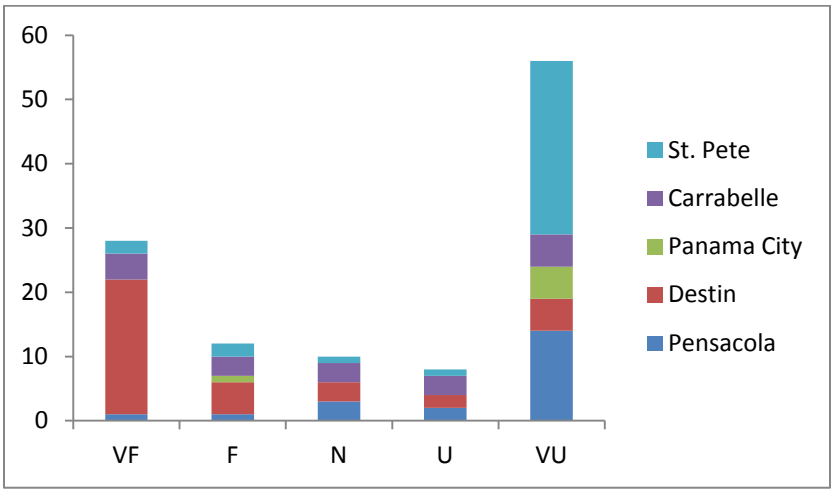
The response to this option was generally mixed between "very favorable" and "very unfavorable", however "very unfavorable" received the most votes.

9) Implement a "Days-at-sea" Program for Federally-Permitted Charter For-Hire Vessels



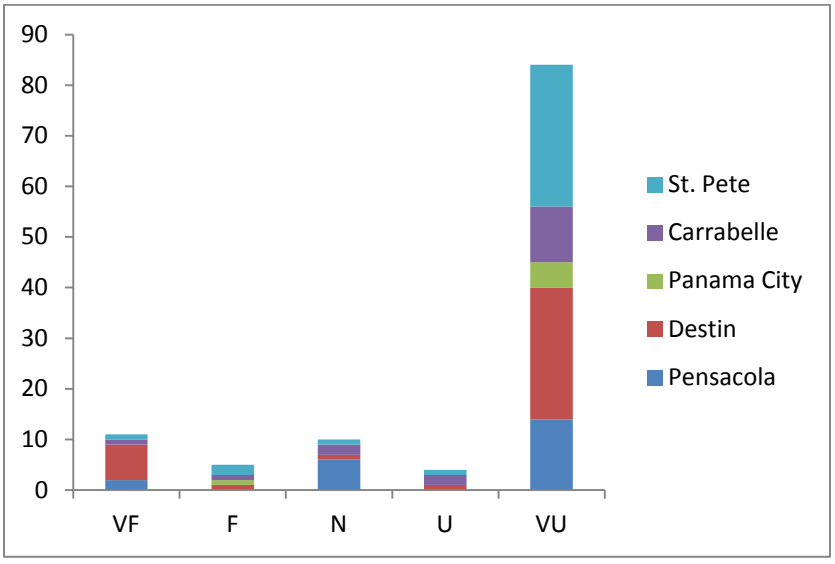
This option was viewed as very unfavorable at all 5 workshops.

10) Implement an IFQ Program for Federally-Permitted Charter For-Hire Vessels



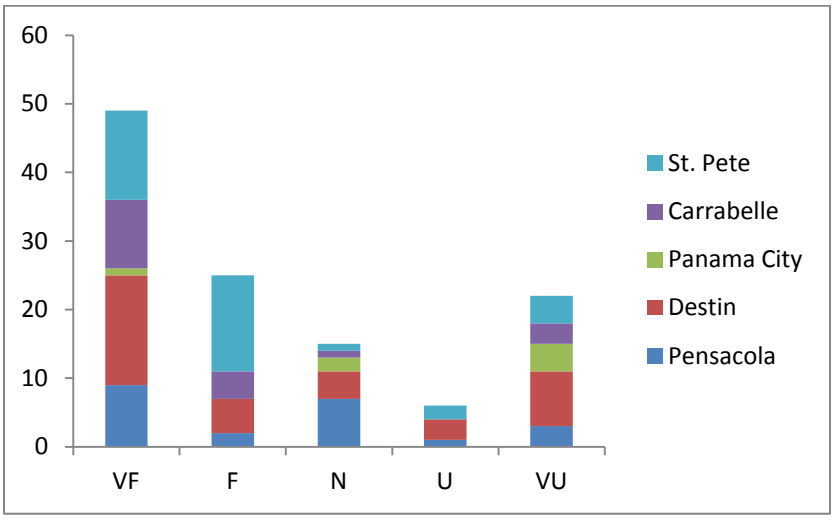
The response to this option was generally mixed between “very favorable” and “very unfavorable”, however “very unfavorable” received the most votes.

11) Implement an Inter-Sector Trading Program of Commercial IFQ Shares with the Recreational Sector



This option was viewed as very unfavorable at all 5 workshops.

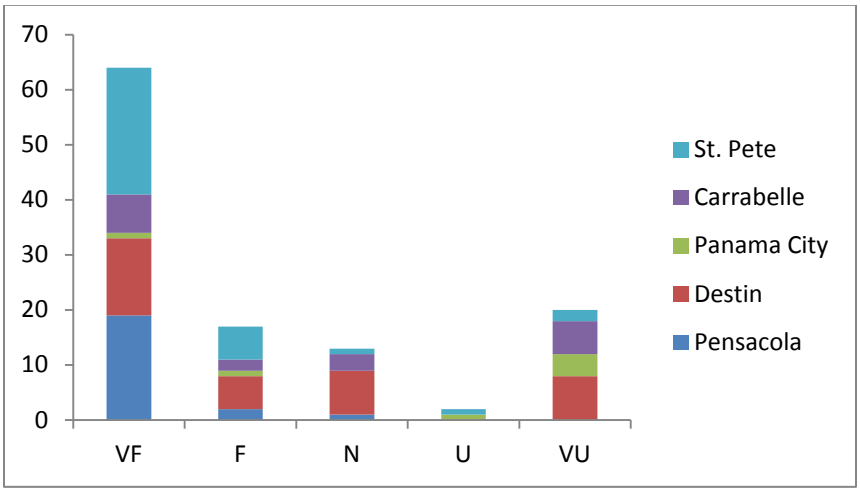
12) Implement Regional Management for the Recreational Red Snapper Fishery



This option was generally viewed as either "favorable" or "very favorable" to most workshop attendees.

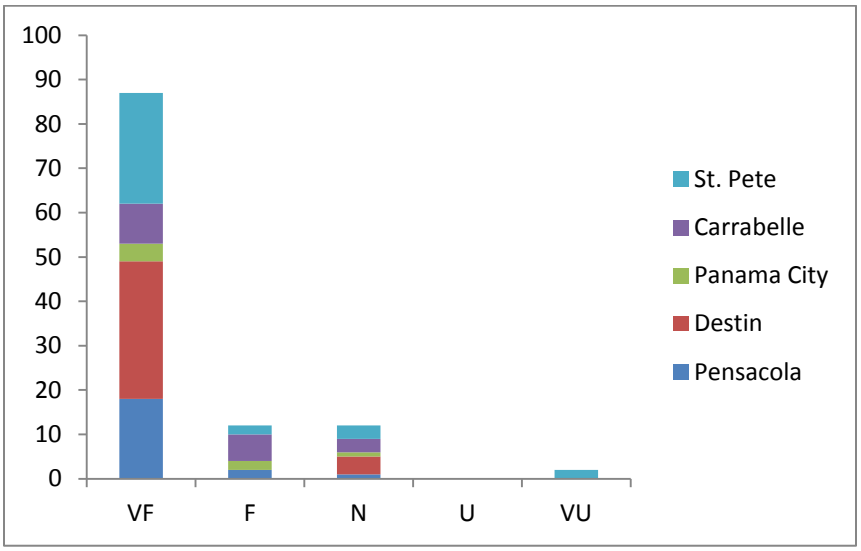
The next set of management options were focused on workshop attendees' ideas for future red snapper (and sometimes other reef fish) management options. For each management option, attendees were asked to rate each option on a continuum from Very Favorable (VF) to Very Unfavorable (VU).

13) Have the FWC Take Over Management of Red Snapper



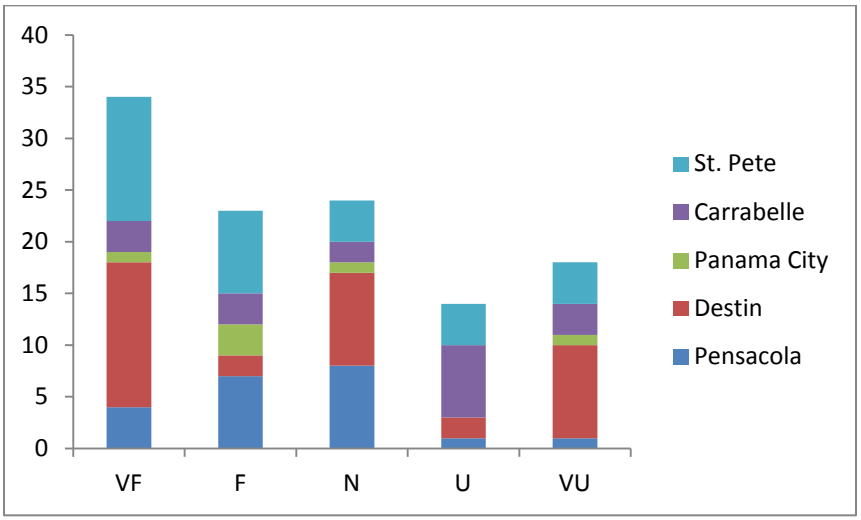
This option was generally viewed as either "favorable" or "very favorable" to most workshop attendees.

14) Simplify Recreational Regulations for Marine Fisheries



This option was viewed as “very favorable” to most workshop attendees.

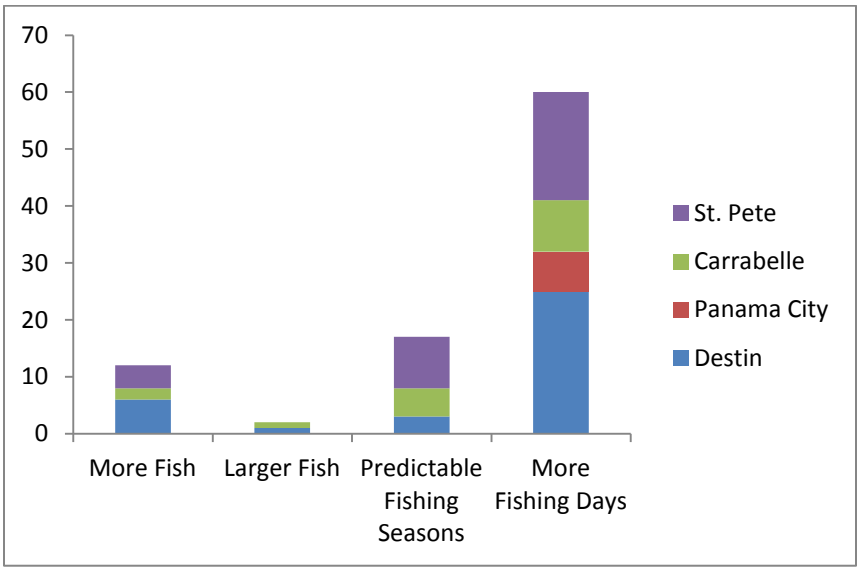
15) Close Recreational Harvest of Red Snapper During the Spawning Season



The response to this option was generally mixed, however “very favorable” received the most votes.

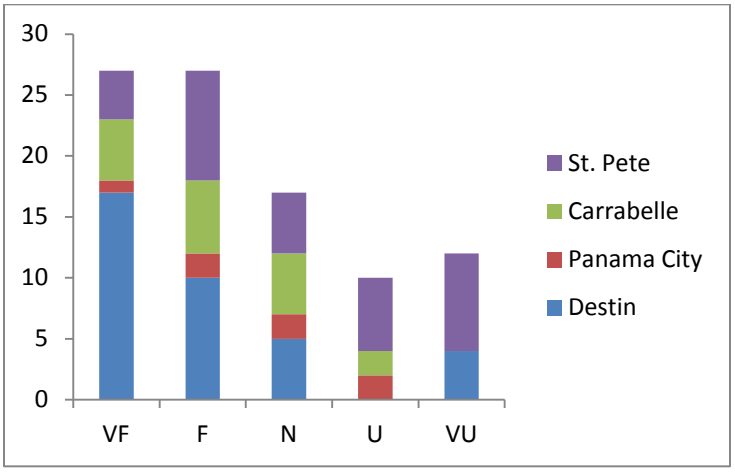
The following questions or management options were asked at only one or a few workshops based on the ideas of workshop attendees. Using the legend to the right of the graph, you can see at which workshops these questions were asked. With the exception of the first question, all questions still follow the continuum from Very Favorable (VF) to Very Unfavorable (VU).

16) Which Management Goal is Most Important to You?



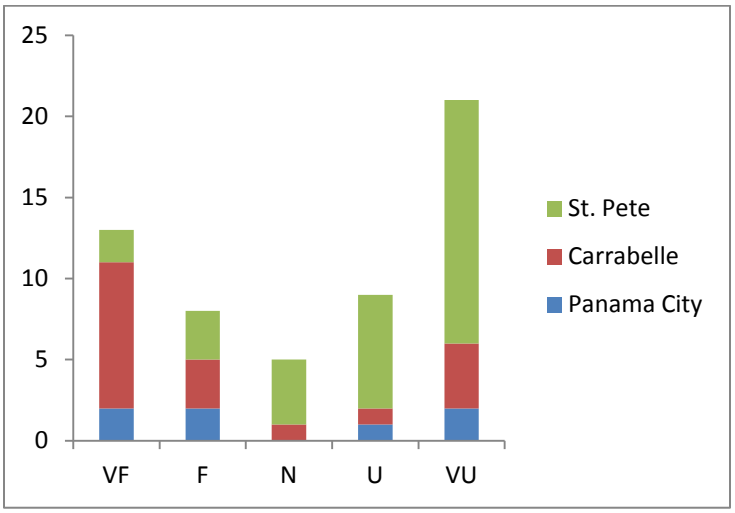
In general, most workshop attendees favored “more fishing days” as their top priority.

17) Have a Split Season for Recreational Harvest of Red Snapper



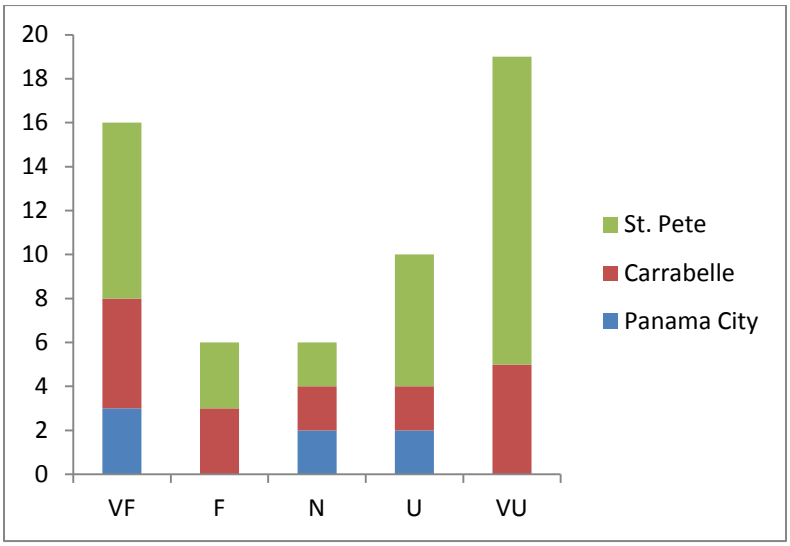
This option was generally viewed as either “favorable” or “very favorable” to most workshop attendees.

18) Have a Single Harvest Season for All Reef Fish



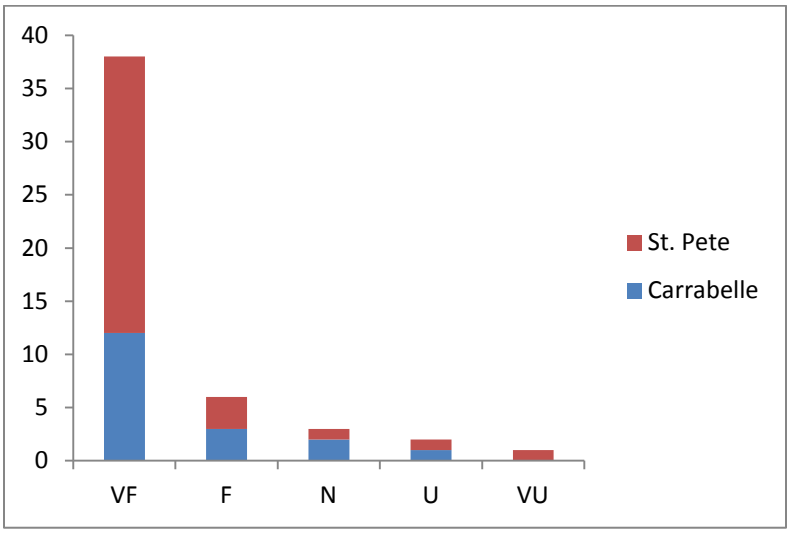
This option received mixed responses, but overall most votes were cast as "very unfavorable".

19) Keep the First Two Red Snapper Caught (No Discards)



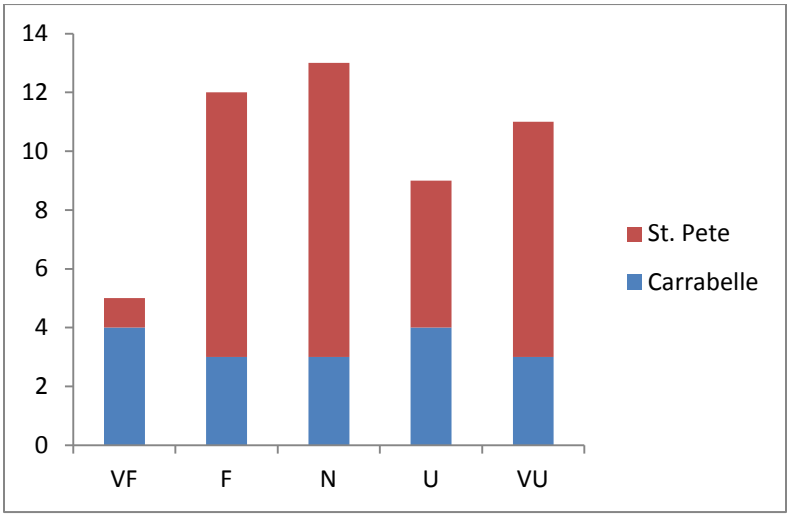
This option received mixed responses, but overall most votes were cast as "very unfavorable."

20) Create More Red Snapper Habitat Through Artificial Reefs



This option was viewed as "very favorable" to most workshop attendees.

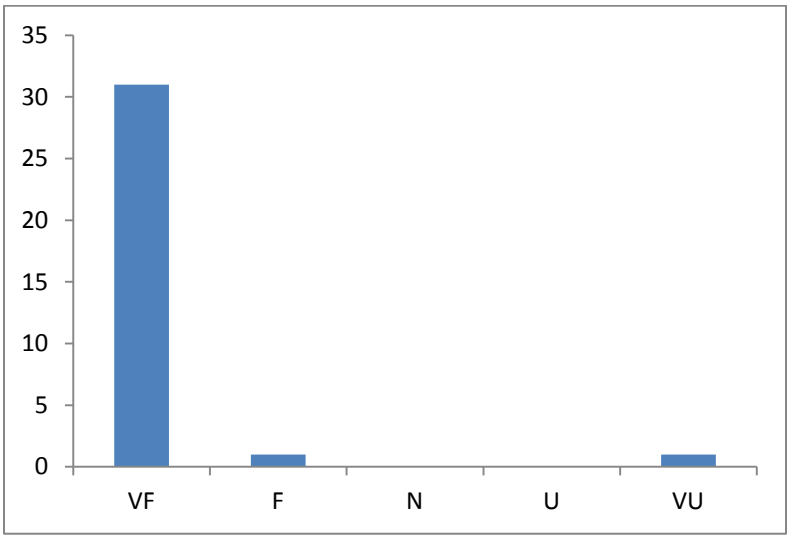
21) Manage Red Snapper Using a Combination of Water Depth and Season (Similar to the Shallow-Water Grouper Closure)



This option received mixed responses, and overall "neutral" received the most votes.

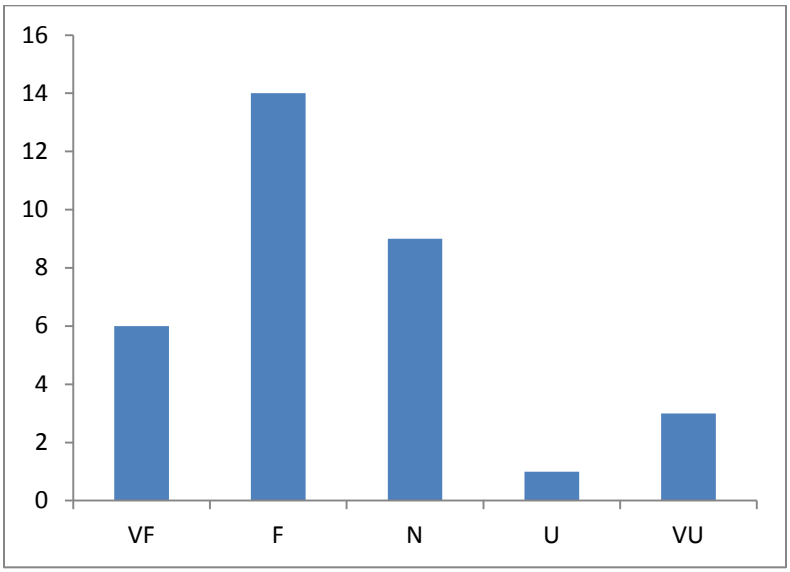
The following options were asked only at the St. Petersburg workshop.

22) More Equity for Red Snapper Seasons by Geographic Area



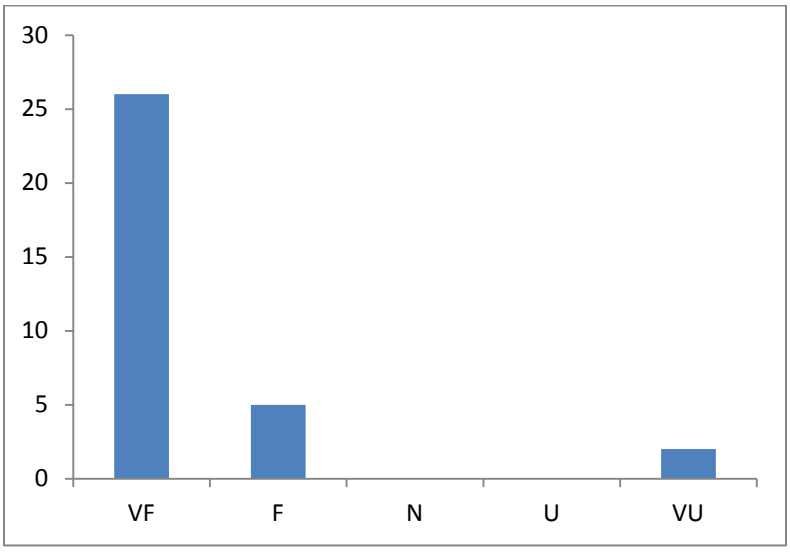
This option was viewed as “very favorable” to most St. Petersburg workshop attendees.

23) Increase the Minimum Size Limit For Red Snapper



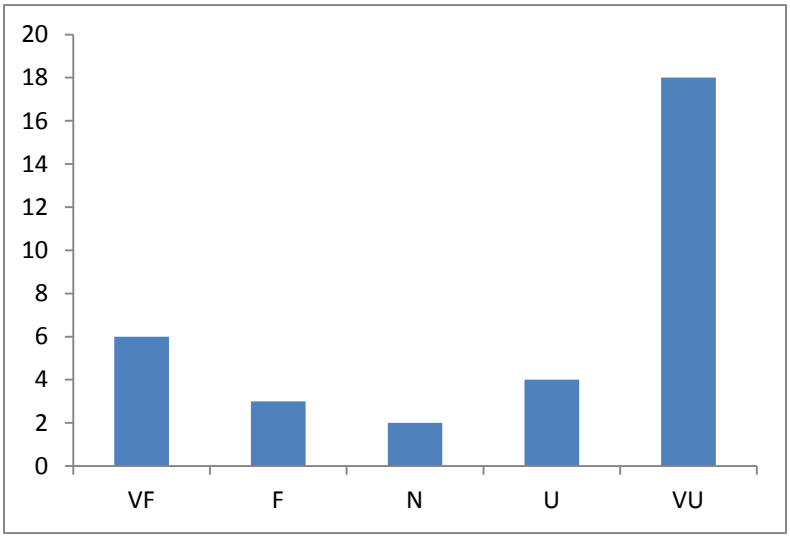
This option received mixed responses, but overall “favorable” received the most votes.

24) Have Regional Management of Red Snapper Within Florida (Have a Season in the Panhandle and Potentially a Different Season off West Florida)



This option was viewed as “very favorable” to most St. Petersburg workshop attendees.

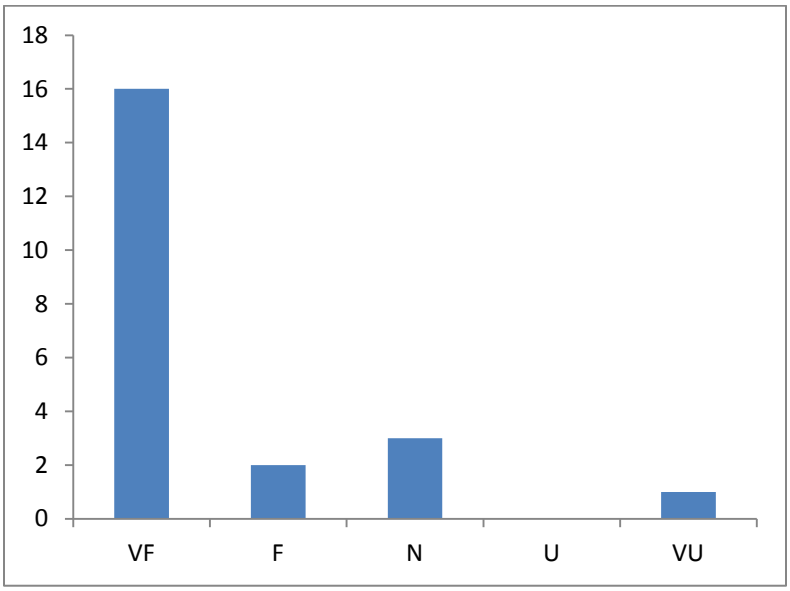
25) Have the State Go Compliant With Federal Seasons For Red Snapper



This option was viewed as “very unfavorable.”

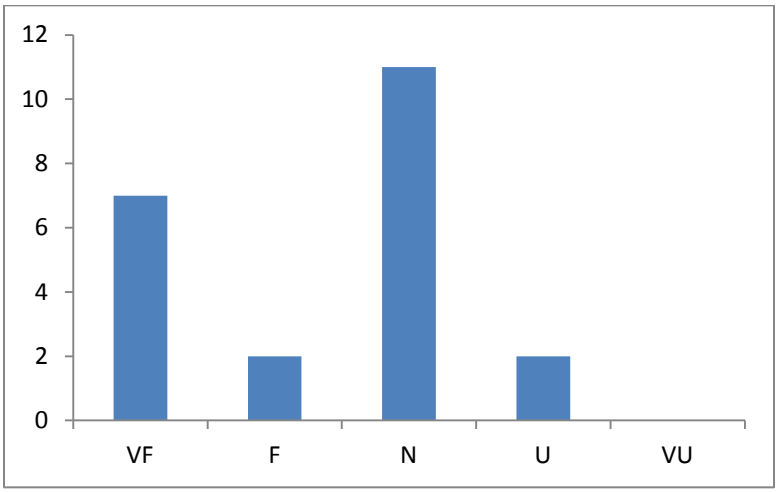
The following management goals were asked only at the Pensacola workshop.

26) Have More Fish For the Future



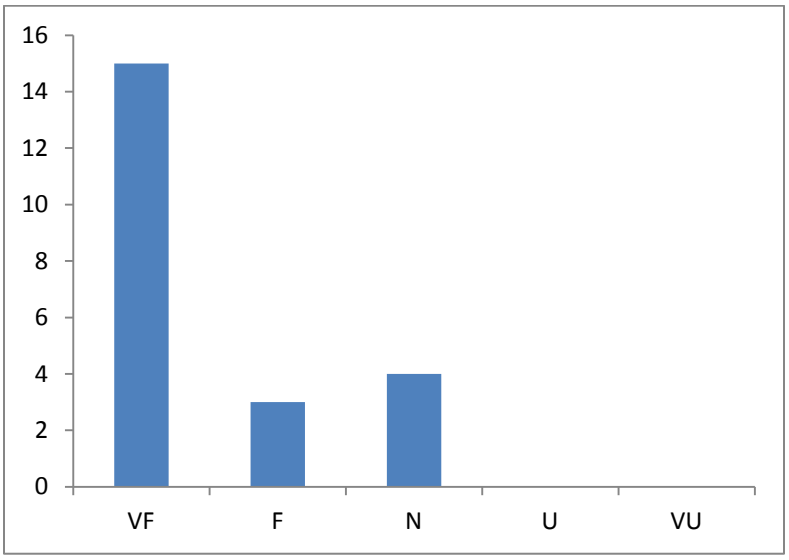
This option was viewed as “very favorable” to most Pensacola workshop attendees.

27) Have Larger Red Snapper Available to Harvest



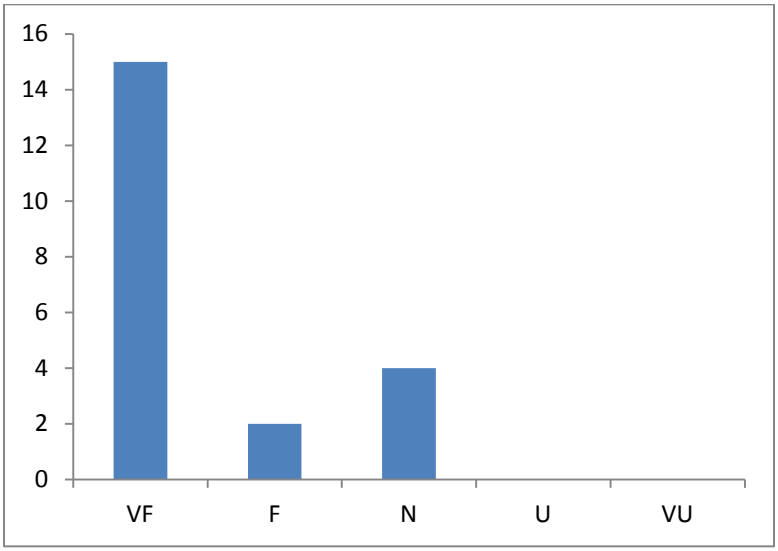
This option received mixed responses, and overall “neutral” received the most votes.

28) Have More Predictable Red Snapper Seasons



This option was viewed as “very favorable” to most Pensacola workshop attendees.

29) Have More Fishing Days Available to Harvest Red Snapper



This option was viewed as “very favorable” to most Pensacola workshop attendees.

Back

ENHANCE ★ PROTECT ★ CONSERVE

Recreational Angler Management

Mississippi Recreational Angler Summit Information

ENHANCE ★ PROTECT ★ CONSERVE

Summit Format

- Date: May 6, 2014
- General Presentation*
- Clarified definitions
- Small group breakout sessions
- Reports from break-out session
- Electronic voting on suggestions from breakout sessions

** Summit focused on red snapper management however, many suggestions could be beneficial for other species*

ENHANCE ★ PROTECT ★ CONSERVE

Questions

- What are your expectations for the recreational red snapper fishery, given the constraints listed in the presentation?
- What can be done to improve data collection from recreational red snapper fishermen and what data collection methods could you support?
- What management methods or new ideas would you like to see implemented to improve the recreational red snapper fishery?

Most Favorable Ideas (60 voting)

- Mandatory reporting for all for-hire vessels
  - Method to report: App or website
- Participation in red snapper data collection program for private anglers*
  - Method to report: App
  - Would like access to real time data collected
- Multiple species open for harvest at the same time.
- Fall season for red snapper
- Regional Management that gives states authority to manage red snapper throughout Gulf also favored federal legislation for regional management
- Federal legislation to allow all Gulf states to manage fisheries 9nm
- Development and implementation of sampling that would directly affect accuracy of stock assessment.

** MS was piloting a voluntary program and the success of the program generated a mandatory program*

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

ENHANCE ★ PROTECT ★ CONSERVE

Least Favorable

- Slot limit (split)
- One-fish bag limit (very unfavorable)
- Weekend only season (mostly unfavorable)
- Tagging system (mostly unfavorable private recs & CFH)
- Days-at-sea program (mostly unfavorable)
- Sector separation (mostly unfavorable private recs & others)
- Closure areas/Sanctuaries (mostly unfavorable)

Summary of Recreational Participation Sessions

Ocean Springs, Mississippi
January 8th, 2014

30-60 day seasons are too short

- Manage using the number of fish rather than the pounds because as the size increases, it takes less fish to harvest the quota and shortens the fishing seasons.
- More fisheries independent sampling will show that there are more fish that we currently think there are.
- Effort reporting is inaccurate. Enhance fisheries dependent data so we know how much fishing is occurring.
- Use weekend only seasons to allow more opportunity throughout the year.
- Reconsider season structure and use weekends, weekdays or combination of the two.
- Use weather & buoy data when making season decisions to ensure that days are actually fishable.
- Use federal species stamps or endorsements to narrow down the universe of anglers for more accurate data.
- Reconsider bag limit to allow a longer season.
- Consider using slot limits to reduce harvest of breeders and to decrease the number of pounds of fish harvested.
- Find and support novel ways to reduce discard mortality.
- Increase the Annual Catch Limit by reducing uncertainty buffers.
- Consider supporting stock enhancement programs for federal species to increase the amount of fish that can be harvested.

Fishing opportunity is limited and there is too much pressure at one time (derby).

- Create two different seasons in the year.
- Recognize that as the season gets shorter the effort is compressed, and consider lengthening the season again to better understand the effects of the derby season.
- Use a Federal Stamp System or landings permits to spread out effort.
- Eliminate single species seasons.

The season timing often interferes with scheduled rodeos/tournaments.

- Create special permits for harvest during scheduled rodeos so they aren't affected if there is a quota closure.

Seasons are not consistent or announced within a reasonable time period.

- Give more advance notice for red snapper season.

- Give warning before a quota closure occurs.

Allocation of fish between commercial and recreational sectors
- Reconsider the structure of fisheries
- Reconsider economic value of fisheries
- Allow sale of fish by rec. fishery

Seasons when there is only a single species to target
- Create target season & bycatch season for different species to allow multi-species on boat. For example, during red snapper season, allow one trigger and one amberjack per boat.

Commercial fishermen are targeting fish first and high discard mortality
- Eliminate commercial size limit & apply catch to quota

Artificial reefs are not being managed or accounted for
- Empower states/regional management to regulate reefs.
- Create open fishing zones and no fishing zones, and rotate them among the reefs to manage pressure.
- Council needs to continue to address rig removal by any means possible.

Bycatch mortality in the recreational fishery
- Allow anglers to retain a few fish that would otherwise be dead discards.
- Reduce the size limit for recreationally harvested fish.

Red Drum closure in federal waters
- Perform a stock assessment and consider a recreational season.

Fisheries dependent data is lacking
- Consider ways to tighten licensing by tying it to some kind of mandatory reporting system or survey.
- Conduct more targeted surveys on actual anglers.

Fishery science limited in scope
- Account for variables that cause mortality other than fishing
- Conduct directed studies of bait shops and use data on inventories of what they're selling (especially bait) to better quantify fishing effort.

One size fits all regulations for the entire Gulf
- Use regional management and allow local entities more control over the resource.
- Base allocation decisions for regional management on biological abundance of the species.
- Allow species to be targeted based on tourism seasons.

Spanish Fort, Alabama
January 9th, 2014

Lack of accountability for angler catch

- Self-reported data programs should be incorporated into the stock assessments
- Mandatory reporting requirements
- Voluntary reporting should be available
- Tag Systems should be used to track angler activity
- Electronic monitoring system should be mandated for Charter For Hire industry
- Hail in/Hail out requirements for all recreational anglers fishing in offshore waters will determine effort
- Federal Stamp or Endorsement should be used to narrow the field of offshore anglers

Allocation between Rec & Commercial fisheries for red snapper

- The recreational sector should have a greater portion of the allocation
- The economic value of recreational fishing to local communities must be weighted very heavily
- The cultural value (way of life) of recreational angling in local coastal communities should be considered
- The social value of recreational angling (passing on a pastime and spending time with family and friends) should be considered

Ownership of IFQs without fishing them

- IFQ owners should fish at least a portion of their own shares.
- There should be a limit on the percentage of shares that can be leased
- Ownership records should be made public

One size fits all management

- Control of the fishery should be relinquished to a more local level
- Regional Management should be implemented
- Complete control should be given to the states
- Any regional management program should ensure State & Federal recognition of the Charter-For-Hire industry.

Limited Annual Catch Limit

- Decrease uncertainty buffers
- Allow actual harvest of Maximum Sustainable Yield
- Reconsider the scientific methodology which does not match what anglers are seeing on the water.

- Increase accountability in the recreational sector as a mechanism for enhancing accuracy of stock assessment to reduce uncertainty.
- Reconsider size structure of a rebuilt stock – it may be more useful for a stock to contain many small fish rather than the sought after larger/older fish (anglers are happy with two relatively small fish and a longer season.
- Improve fisheries independent data collection for a more accurate stock assessment

Discard Mortality

- Use a slot limit to allow bigger, more reproductively important fish to remain in the stock.
- Consider limiting allowable hook size while fishing for red snapper to avoid catching larger fish
- Consider requiring the use of weak hooks to allow larger fish to escape
- Require improved release methods such as recompression device or descending tools.
- Create a first fish limit where anglers must retain their first fish and discontinue fishing once that has been harvested.
- Transition to an ecosystem-based approach to management so that anglers can harvest on a trophic level. Let them keep what is abundant in their area rather than throw back fish while targeting fish caught with similar techniques.
- Create a mixed size/bag limit where anglers can keep some fish over and some fish under the size limit.

Compressed Season - Red Snapper season (limited opportunity for fishing)

- Consider a tag system for the entire recreational fishery to allow flexibility in the fishery.
- Focus more on the science to ensure an accurate fish count, which should increase the ACL and allow for more fishing opportunity
- Allow monthly allocations so that June is not the only month for fishing.
- Convert the allocation to a certain number of fish
- Sub-sector management to allow for a LAPP program in the for-hire sector.
- Insist on accountability for the charter-for-hire sector

Inequality in charter-for-hire management

- The recreational sector should be managed as a whole, not in sub-sectors
- The charter-for-hire operators should be allowed different regulations because they operate differently from the private anglers
- Mandatory reporting should be required for the for-hire fishery because the universe of those anglers is defined

- For-hire operators should be managed under LAPP programs to allow more flexibility in when they can fish.

State Incompliance

- Federal enforcement of regulations off of states with inconsistent regulations should be robust
- States that make consistent regulations should be incentivized

Inaccurate Stock Assessments

- Artificial reefs and the fish on them should be given greater weight in stock assessments of red snapper
- The landings data programs need to be improved
- There should be a way to incorporate the different habitats and their frequency into the assessments
- Less attention should be given to reef fish surveys done over sandy bottom
- More funding should be directed to the assessments
- The frequency of the assessments should be increased

Prioritize Fishery Management Issues

- Council should first focus on getting numbers in order by put forth major effort to improve the stock assessments and the landings information
- Accountability should be developed for each fishery
- Start making management changes with known user groups (permit holders)
- Make a private angler reporting program

Destin, Florida
January 11th, 2014

Invasion of lionfish

- Initiate emergency actions that support aggressive Gulf-wide population control programs.
- Motivate diver participation through tournaments and incentive programs.
- Develop an options paper to allow lionfish trapping in the federal waters.

Sector Separation and the fair division of recreational fishery

- Increase accountability in fishery so that no separation of sectors is needed
- Some sort of endorsement program should be developed to narrow the scope of anglers and as a condition of receiving an endorsement mandatory surveys or reporting should be required.

- Permits or stamps for federal species (like the snook and lobster program in Florida) may be needed but cost of such a program would need to be very carefully considered.
- Federal fish tag program should be used for the entire recreational fishery rather than a sector separation scenario.

Lack of data on universe of recreational anglers

- Electronic reporting and a hail-in hail-out requirement should be mandatory in the charter-for-hire industry.
- More transparency on scientific counting methods, details on how it is done should be published.
- Involve enforcement in accountability process since they are stopping and checking catch anyway.
- Online reporting programs and phone apps should be available and should be used to identify trends in effort and catch.
- Council should advocate for more federal and state funding of fisheries dependent sampling programs.
- Annual angler surveys should be required as a condition of holding a fishing license.
- Mandatory & voluntary reporting programs should be used and compared.
- Advocate for enhancement of academic participation in data collections from University and high school students or citizen science programs.
- Rotating weigh stations should be put at landing sites to better quantify catch.

Lack of fisheries independent science

- More cooperative research programs with recreational anglers should be used to enhance data and credibility.
- Methods to quickly assess data, too much lag time
- Dr. Shipp's input should be used more readily.

Constrained seasons

- When determining season length consider the angling days lost due to weather.
- Increase biomass of stocks through restocking programs.
- Decrease uncertainty buffers that decrease the allowable harvest.
- Consider a tagging system for the recreational fishermen so that they can choose their days to fish.
- Make a license that allows different people to participate in different seasons or split licenses to odd and evens and allow fishing every other day.

Private ownership of public resource

- Consider how land-based management is done.
- The commercial fishery should be eliminated.
- Aquaculture should be used to take the place of commercial fisheries.
- Seafood imports should be limited.
- Consider how other natural resources are managed- oil, gas, etc.
- Tags should be used by individuals to harvest and sell their catch.
- A public resource tax should be placed on the commercial fishery.
- Use it or lose it clause should be instated in the commercial IFQ fishery. Those who own shares should have to harvest a portion of them directly.
- Commercial fishing rights (IFQ's) should be purchases from the government every year without automatic renewal.

Allocation between commercial and recreational anglers

- Once the commercial red snapper is back at its original level allocate any increases to recreational fishery.
- Accountability must be enhanced in the recreational sector so that better allocation decisions can be made.
- Consider splitting the red snapper allocation 50/50.

Foreign fishing activity

- Ensure there is enough enforcement in place to stop foreign fishing in the Gulf.

Local management is needed because the Council and NOAA too far removed from local needs.

- There needs to be more local data gathering on both the science and the fisherman's needs and habits.

Biomass of stocks and habitat needs to be increased

- Write letters to the Army Core of Engineers encouraging them to make habitat creation less of a difficult process.
- Encourage the building of more non-published juvenile artificial habitat

Predation from sharks and dolphins on red snapper and other reef fish

- Consider encouraging non-lethal methodology to deter predation on reef fish.
- Focus more scientific studies on the effects of discard predation and mechanisms to stop it.

Knowledge and understanding of fisheries management lacking

- Increase outreach effort and outreach funding.

- Council votes need to be recorded and made public so that people can have a better understanding of how each member stands on issues.
- Public comments need to be quantified so that the public can see that their opinions are counted.
- The management process itself needs to be streamlined to allow for easier access.

Fair access to the fishery needs to be a major consideration.

- A better definition of fisheries ownership and rights are needed.
- Social, cultural, and economic issues need to be considered when making decisions about opportunities to fish.

Season consistency needs to be enhanced

- New regulations and immediate closures need to be phased in and noticed with plenty of time.

Mortality of release in the recreational sector decreases the allowed harvest

- Management should be based on fishing mortality in the recreational sector (Dr. Shipp's theory or management.)
- Reconsider size limits
- Suggest Council endorsement of recompression or other methodology to reduce mortality

Special interest groups are too influential in the Council

Scientific information needs to be incorporated into models, management, and regulatory actions quicker.

Port Aransas, Texas
January 13th, 2014

Short red snapper season, particularly for small vessels.

- Shift seasons to later in the year to accommodate more fishing days. Changing to a July 1st opening would be helpful for smaller vessels fishing out of Texas.
- Use a tag system to allow year round fishing opportunities
- Initiate a voluntary Charter IFQ System to make the fishery accountable which will in turn allow Council to reduce uncertainty buffers that limit the amount of fish that can be harvested.

Only allowing one target species to be open at a time is wasteful for both discards and for efficiency of trips.

- Open amberjack and snapper at same time

Discard mortality in the commercial industry is a major problem

- Limit bycatch for shrimpers to ensure that they don't kill too many finfish while targeting shrimp.
- Do more studies of the discard in the commercial industry and ensure their waste is counted against their Annual Catch Limit.
-

Removal of rigs and loss of habitat is a huge concern

- Council needs to do everything in their power to influence the folks responsible for rig removal. Write letters, make phone calls, and make a great effort to reduce or eliminate the removal of the rigs.
-

More artificial habitat needs to be put into the Gulf

- Council should influence the federal governments and other reefing programs to continue and enhance efforts to create artificial reefs.

Commercial red snapper effort off the Texas coast reduces the local fish population

- Zones should be created in the commercial fishery to distribute the number of commercial fishermen that target an area
- Commercial fishermen should be limited in the distance they can fish from their home port.

The current allocation of red snapper needs to be reconsidered.

- Council needs to consider the economic impact each sector has on the national and local scale.
- A system needs to be created to make everyone accountable for what they catch. That way each sector will fish within their allocation.
- Create a system that makes everyone accountable to fish within their allocation.
- A system can be made without going to IFQs/Catch Shares-such as a tag system without sub-sectors.
- State/Regional/local management for private recreational anglers and charter boats is a form of catch shares that can be considered in lieu of IFQs.
- Cultural value of recreational fishing needs to be considered the resource shared among more anglers in the recreational sector.
- Reducing the amount of commercially caught fish will drive up the price per pound allowing recreational anglers more allocation without harming commercial entities.
- Consider recent historical landings. Recreational anglers have been harvesting greater than their share and should be given at least what they've been catching.
- Use land-based game management programs like duck stamps and the gator lottery.
- Consider allowing recreational sector to harvest commercial allocation. Allow commercial fishermen to voluntarily sell or lease shares to a pool

that can be harvested by the recreational sector. Be sure that there are equal standards of accountability and reporting.
- Recreational anglers need a way to get a year-round red snapper season.

Scientific data need to me bore accurate and transparent
- Anglers need to be give a better explanation for why there is such a disconnect between scientists and angler experience.
- Habitat needs to be incorporated into data more.
- A head count of fish, with larger ones weighted differently against the quota
- Each state needs more specific data and enhanced local fisheries independent sampling

Market exchange of the rights to fish is a problem
- Disallow the buying and leasing of fish shares within the commercial sector and among sectors.

More enforcement is needed

Having sub-sectors in fishery can be a problem if not done fairly.

Pearland, Texas
January 14th, 2014

Short unpredictable season
- Consider a study on slots, paying special attention to discard mortality.
- Create a tag/stamp system that would allow year-round season.
- Allow charter boats to have their own allocation.
- Initiate an IFQ program for charter boats.
- Create an off-shore endorsement for fishermen targeting federally managed fish.
- Implement better accountability measures.
- Stop trying to count every fish, go by extraction rate, in conjunction with yearly stock assessments.
- Initiate more angler contact by using a different, more accurate survey.

Enforcement of current federal regulations needs to be stronger
- Every permitted CB should have VMS

Some get to fish year-round and others are limited to a short season. Impacts fish populations that are easily targeted, leaving less for others. Creates sense of unfairness because it guarantees fish to one group.

- Eliminate inequitable access and allow fishing rights in areas based on size of vessel.
- Geographically restrict fishing zones so that local areas are fished by local fishermen.
- Use tags to track catch and charge more for extra opportunity to fish outside season.
- Remove the clause that limits charter fishing during state water seasons.
- Remove state season to enhance federal season.
- Limit charter vessels to 1 trip per day.

Lack of a program that grants year-round access to rec anglers

- Support sector separation and give the charter for hire sector and IFQ program and use harvest tags in the private sector.
- Allow transfer of commercial quotas to private boats.
- Use a lottery to dispense commercial IFQs to all anglers.
- Mandate all boats fishing offshore to hail in and hail out.

Texas anglers are disadvantaged with June 1st start date because it gives them less fishing days because weather doesn't cooperate until later

- Start the red snapper season after July 15th
- Split the Gulf into to East and West regions and manage them separately.
- Initiate a days at sea program to allow fishermen to choose their days.
- VMS on all CB

Accuracy of scientific data used to allocate stock

- Put Vessel Monitoring Systems on all charter boats to increase accountability.
- Regional differences in seasonal abundance need to be accounted for in data.
- The lack of accountability in harvest needs to be solved with real time landings data.
- More fisheries independent data needs to be collected.
- A tag system should be used but council must be sure that extra tags that aren't fished roll back into the program to be available to anglers.
- iSnapper should be used for the charter boats.
- A federal stamp/endorsement should be used with funds directed only to program, not general government funds.
- More fishery independent data needs to be funded by congressional programs.
- Consideration of habitats needs to be taken into account for each state as pertains to allocation.

Mistrust of federal managements desire for accurate data.

- Have private industry take over fishery science.

- Less government science and more academic-based data should be used.

Discard mortality

- Encourage venting and the use of other devices to reduce discard mortality.
- Enact a rule that makes each person keep their first two fish and then discontinue fishing.
- Eliminate the size limit for red snapper.
- Mandate barotrauma release devices on charter boats fishing in water deeper than 12 fathoms.

Timeliness of stock assessments and enhanced fishery independent data.

- Texas data are incomplete and needs to be enhanced and incorporated into Gulf-wide data.
- Council should take action to prevent Texas from under-reporting and skewing landings data.
- Data collection needs to be addressed at state level rather than on a federal scale.
- Council should recognize that data are incomplete when making allocation decisions.
- Council needs to encourage states to improve reporting, data timeliness and accuracy.

Charter boats are held to higher standards, but under same system of management.

- Sectors should be separated and managed with different fishery management plans.
- Amendment 30B should be rescinded to allow for-hire vessels to fish along with the rest of the recreational sector.
- For-hire crews should be allowed to keep fish.
- Charter boats should be allowed to harvest the commercial quota while for-hire as long as commercial accountability requirements are fulfilled.

Proposed regional management allocation alternatives are inequitable to Texas

- When making allocation decisions consider biomass, percentage of state coastlines, population of anglers per capita, and water depth.
- Habitat composition off of each state should be taken into account.
- Consider that biomass in Western Gulf supplies fish to Eastern Gulf.
- Figure out the number of people fishing privately in federal waters before making allocation decisions.
- Use an offshore endorsement to define who is fishing federally before making allocation decisions.

- Require mandatory reporting for the for-hire component of the recreational fishery before making allocation decisions.

Privatization of public resource

- The resource should remain and open domain for everyone, without ownership rights.

Council does not know number of people fishing privately in federal waters

- Require an offshore endorsement to fish for federal species.
- Require the for-hire fishermen to be fully accountable.

Council does not take action towards reasonable solutions; no solutions-just restrictions

Baton Rouge, Louisiana
January 15th, 2014

The exempted fishing permit for headboats grants unequal access to the fishery

- Council should discontinue the headboat pilot program and manage the headboats with the same seasons as the rest of the recreational sector.
- The number sin the EFP are skewed and because a different system of accountability is used. Harvest should be counted using the same system for all components of the recreational fishery in order to make fair allocation decisions.

NOAA influence over the Council is too strong; NOAA has too much power to override Council.

- Voting members from NOAA should be prohibited from voting on the Council.

There is not enough recreational red snapper fishing opportunity

- Red snapper should be considered a gamefish and commercial harvest should be disallowed.

Regional management should be considered for Gulf stocks

- Red snapper management should be based on the separate eastern and western stocks.

Sector separation should not take away the private anglers right to fish

- A portion of the red snapper quota should be taken from the commercial allocation and used for the for-hire component of the fishery.
- The for-hire community should not have special rights to the fish at all. They should be managed along with the rest of the recreational sector.

Habitat conservation, rig removal, and artificial reefs need to be given more attention

- Council should move forward in declaring artificial reefs as Essential Fish Habitat.

The responsibilities and role of Council is confusing.

- More outreach and education must be conducted to inform anglers about the management process.

The Council process is inaccessible to recreational anglers who work and don't have money to travel

- Public participation-more visitor friendly meeting places needed to encourage attendance.

Lafayette, Louisiana
January 16th, 2014

Red snapper have become a nuisance because there are so many out there

Constrained season for red snapper

- Consider using weekend seasons to extend the time period throughout the year that harvest can occur.
- Make federal regulations that are consistent with the Louisiana laws.
- Create a season that is open for three day weekends all summer long.

The way the fish are counted is inaccurate

- The abundance of fish should be weighed based on biomass of fish in certain areas of the coast.
- Management and research should be done in smaller, local areas.
- Increased sampling needs to be done at more sites, especially at artificial structures.

Regional management

- Red snapper should not be assessed as a gulf-wide stock.

Fishing pressure is not as great as Council believes

- A program that mirrors water-fowl management and reporting should be considered in the recreational sector.
- Fishery dependent data needs to be enhanced.

Rig removal is harming habitat and fish populations

- Council needs to let responsible parties know that the effect rig removal has on fish needs to be reconsidered.
- Council should allow a rig to be fished openly before it is removed. That way the fish won't go to waste and angler opportunity will be increased.

There needs to be more artificial habitat in the Gulf

- Council should encourage the building of artificial structure.

Council trying to put red snapper fisheries out of business

- Management needs to be done on a regional or state level rather than by the Council.

Predation of various species due to over-abundance of red snapper

- The red snapper stock needs to be re-assessed.
- Allow greater harvest of red snapper.

Menhaden, porgy, and other forage species being fished out by party boats-population of species that feed on them (amberjack, mackerel, etc.) are reduced.

- Council should encourage agencies responsible for forage fish to consider the effects management has on the food chain and the fishermen that depend on those resources.

As average size of fish increases the season is shortened

- Lower size limit and increase the bag limit for the smaller fish

Lack of fishery sampling

- More funding should be directed towards fisheries science.
- The species that anglers intend to target should be incorporated into the licensing process.

Inequity in the commercial and recreational allocation

- The socio-economic benefit of commercial vs. recreational fisheries needs to be taken into account when making allocation decisions.
- Council should consider the huge discrepancy in the number of commercial fishermen vs. the number of recreational fishermen accessing the resource.
- Commercial fisheries should be shut down all together.
- If sector separation occurs the allocation for the for-hire component should be taken from the commercial sector.

One per boat Warsaw Grouper limit is causing discard mortality

- Council should consider increasing the Warsaw limit.

Council is trying to discourage rec fishing by limiting catch and seasons too strictly
Louisiana has a shallow coast and fishable weather doesn't happen till after the summer red snapper season is mostly over.

Pinellas Park, Florida
January 22nd, 2014

Flawed data

- Council should not accept data that are inaccurate and use it to make management decisions.
- Council needs to pressure NMFS to enhance data collection and follow MSA.
- Follow National Resource Council report suggestions on enhancing the data.
- Create an angler registry and survey the known universe of fishermen.
- Create an APP that allows you to use your fishing license number to report data on catch and effort.
- Create and offshore permit/endorsement to define the universe of saltwater anglers that target federal fish.
- Replace Random dialing Coastal Household Telephone Survey.
- Get more money from Congress for data collection.
- Find a way to validate data supplied by anglers (self-reported).
- Council needs to take an active role in convincing NMFS to incorporate Charter data to enhance MRIP.
- Council should initiate a survey fashioned after the duck survey that is conducted during license renewal.
- FWC/FWRI should take over data collection.
- Council should request that NMFS data are peer reviewed by scientists that do not work for NMFS.
- Unreliable data should be discarded and Council should request independent review of the stock assessments.
- Council should act on Dr. Bob Shipp's advice regarding the abundance of red snapper.

Managing recreational fishermen with commercial concepts does not work

- Use numbers of fish rather than pounds to make management measures.
- Make a system that makes the recreational sector accountable for what is harvested.

There is no faith that the Council listens to anglers

- Provide more information on the position of stakeholders in the Gulf (quantify).
- Provide more rationale for council decisions.
- Council discussions and votes should be kept on the record.

Sector Separation/Amendment 40 is bias and Council continues to consider it

- Be sure to use all the input that has already submitted on the issue to make the decision to do away with sector separation.

- Understand that a recreational angler is a recreational angler whether on a for-hire vessel or on private boat.
- Push forward and take the amendment into the scoping process.
- Don't move forward until accurate data are available to determine allocation between sub-sectors.

Hogfish closure was abrupt and unnecessary

- Set a proper Annual Catch Limit that is based off of science rather than flawed harvest history.
- Raise size limit so that the Annual Catch Limit is not harvested within the year.

Unequal access to fish (EFP) means that headboats have no competition and will overharvest allocation (based on 5 lb. estimate vs. actual average size)

- Get rid of the headboat pilot program
- Find a way to allow the maximum number of fishing days for all fishermen to increase opportunity for everyone.
-

Short seasons and reduced opportunity to fish are a problem

- Recognize condensing effort by shortening seasons doesn't work.
- Allow weekend harvest for recreational anglers year round.
- Council needs to tell NMFS that short seasons and effort compression should not be used.

The Council does not know how many anglers access federal fisheries

- Ensure that all salt-water anglers must be registered (use existing angler registry).

There is a lack of targeted involvement/outreach with for-hire customers

- Initiate a mechanism for collecting data from fishermen participating in for-hire fishery.
- Conduct more dockside intercept surveys.

Too much of the budget is focused on creating catch shares rather than enhancing science

- Council needs to push back on catch share issues and require better data before moving forward with other management schemes.

Moratorium on for-hire permits has reduced the fleet and driven up the price of permits

- Council should begin issuing permits again until we reach original number that existed before the moratorium went into place.
- Council should leave the permit moratorium as is.

- Council should disallow the sale or transfer of permits among fishermen. Instead, permits should go back to the government for redistribution.

The economic impact analysis in amendments is lacking and bias

- Council should hire independent consultant to do analysis (not from the Center for Independent Experts).
- Analysis should be broadened beyond ex-vessel price and incorporate more economic factors from industry suppliers including bait shops, tackle manufactures, hotels, etc.
- Council needs to stand up to NMFS when there is an obvious bias in the analysis.

Bad weather is not accounted during the red snapper season

- NMFS should work with the National Weather Service to determine fishable days or develop some sort of fishability index.
- Ground truth current data with defined universe of anglers.

There is a lack of accountability both Council and NMFS

- Council members should be held liable for their decisions. Right now they can't be sued for bad decisions.
- Conflict of interest rules should be strictly enforced.
- Council should not be allowed to vote one way, take a lunch break, then change a vote. Sunshine laws must be used in the Council process.

Rig removal and loss of Essential Fish Habitat

- Readdress Essential Fish Habitat Amendment and provide a rationale for why Council tabled discussion on the amendment.
- Revisit the rigs-to-reefs initiative and encourage agencies to reconsider the destruction of habitat.
- Add a mitigation clause requiring agencies to counteract their destruction.
- Allow for targeted removal of fish before a structure is removed.

Too much influence from environmental groups on both Council and NMFS level

- Council members should abstain from votes on issues where there's a conflict of interest.
- Make it illegal for anyone to pay for others to attend Council meetings.

Regulations are not updated or announced sufficiently

- Make regulation changes less frequent.
- Council needs to suggest that NMFS provide a minimum of 60-days public notice before making a regulatory change or closure.

The make-up of advisory panels are bias

- Council should ensure that a sector appropriate Council member is at each advisory panel meeting.
- The selection process needs to be made public.
- Panels should meet periodically even if there are no issues for consideration (to at least meet each other).

Fort Myers, Florida
January 23rd, 2014

Goliath populations are expanding

- Create a limited tag system where anglers apply for quota or lottery (i.e., gator program) and require carcass be turned in for scientific research.
- Transport adult breeding goliath to other locations so they can repopulate other regions.
- Take a cautionary approach to allowing harvest.

Discard mortality due to predation

- Cull the population of goliath.
- Encourage NOAA to develop an outreach/education program to educate anglers about goliath, dolphin, and shark predation of released fish.

Allocation between the commercial and recreational sectors

- **Council needs to** consider the overwhelming economic value of the recreational fishery (beyond ex-vessel price).

Lack and inaccuracy of fisheries dependent data

- Council need to encourage an increase in data collection.
- Programs such as iAngler and the Fishrules App should be used and encouraged by Council.
- The scientific collection process needs to be speed up.

Recreational release mortality

- Council should encourage the use of decompression tools.
- The size limits and bag limits should be removed and management should be based on pounds or overall length of fish caught.
- Fishing models have not been adjusted based on use of circle hooks, dehooking devices, and venting tools (descending devices). Council needs to ensure that those factors are considered when setting mortality levels in the recreational fishery.

Lack of education on the council existence and Council process

- Outreach efforts should be regionally based (especially targeting South West Florida).

- Efforts should be directed at trade shows such as the Florida Sportsman show.
- More emphasis needs to be put on the MREP program and its availability to anglers.

The current gag season doesn't work for Ft. Myers area which is one of the most important areas for gag fishing.

- Regional management needs to be used for gag grouper.
- Re-consider a November – March season for Ft. Myers/South Florida.

Harmful algae blooms/Excessive release of water from Lake Okeechobee is harming fish populations.

- Council needs to encourage NMFS to factor that mortality into assessments.
- Council should encourage the appropriate agency to consider and resolve the issue.

Red grouper bag limit excessive

- Drop the bag limit back down to two-fish per person.

Hogfish closure

- Increase the minimum size limit.
- Require a hogfish stamp with a mandatory reporting requirement.

Red snapper season is inappropriate

- Use regional management to make appropriate management measures.
- Account for geographical variation when setting regulations.

Sector Separation

- Consider sector separation a mechanism for accountability.
- If initiated include a mandatory sunset clause.
- Subdivides the voice of the recreational sector.
- Fisheries dependent data doesn't fairly distribute the resource and should be reconsidered before a decision is made.

There is too much of a time lag between stock assessment and regulations

- Speed up the amendment process

Rig removal and Essential Fish Habitat

Commercial long lining causes mortality of recreationally targeted fish

Disparity between state and federal regulations

Webinar
January 27, 2014

Council continues to support Sector Separation despite overwhelming opposition

- Listen to the people, not the money, while deciding how to proceed with the sector separation issue.
- Formulate a management plan that addresses all recreational (private and for-hire) fishermen equally.
- Enhance fishery dependent data with the OFS permit plan (hail in/hail out) rather than using accountability as a reason for sector separation.
- Council needs to address the discrepancy in the Texas charter days.

Data collection is insufficient

- Council should encourage the use of the National Saltwater Angler Registry
- Random statistical survey of the known universe of anglers (as per NRC recommendation) should be used.
- Greater accountability of the for-hire component of the recreational fishery should be required.

Data poor species subject to 40% chance of closure

- SSC needs to consider that a P-Star value = percentage of fisheries subject to closure

Council is inaccessible/ the management process does not accommodate private recreational fishermen

- Use the SAFMC model and convene public input in the evening during Council meetings
- Council needs to create forums where anglers can discuss problems and solutions among themselves.

Unequal access to the fish within the recreational sector

- The headboat pilot program should be discontinued because it is illegal and unfair.

NOAA Fisheries is not the proper way to refer to NMFS

- The Gulf Council should use the proper term when referencing NMFS.

Dr. Shipp's Red Snapper Testimony and socio-economic impact are not taken into account

- Ensure artificial reefs are included in the stock assessments.
- Rely on Dr.Shipp's understanding of the fishery.

Continuous reduction in recreational fishing opportunities

- SSC discussed this specific issue at their last meeting and Council should review that discussion.

- Look to Office of Science and Technology and encourage movement towards the use of the angler registry.

Incentive for investors does not belong in the fishery

- Transferability of the rights to fish should be disallowed.

There is over-representation of commercial sector and under-representation of the larger recreational sector in management

- Consider different forms of public input to reach more private anglers and gather more comment.

Council needs to be held more accountable

- Explain in the EFP how the amount of fish for each boat in the program was calculated (8879 fish to one vessel).
- Consider requiring vessels with stake in sector separation to submit tax records for public review.
- Council needs to take a voice/role call vote when amendments are advanced; not only for final action.

Council makes decisions without required data to do so

- Council needs to make a pronounced effort on data before moving forward on management programs.

Overall management scheme for the recreational fishery that isn't quota based should be used

- The FWC CPUE method of setting management limits should be used as a tool in place of ACL's and ACT's.

Council and NMFS have lost credibility with the public

- Anyone with possible financial gain from decision making should not serve on the Council.

Overstatement of recreational effort

- Council needs to remove the incentive to misreport especially in the for-hire component of the fishery.
- Council needs to take the overstatement into account before moving forward with Amendment 40.

Council should be driving options for improving data and management instead of asking private recreational sector to do it

Appears to be a movement toward privatization of a public resource

Summary for the Ad Hoc
Recreational Data Collection Advisory Panel
Tampa, FL
May 17, 2012

Council and Staff
Kevin Anson
Bob Gill
John Froeschke
Stephen Bortone
Emily Muehlstein
Ava Lasseter

Panel Attendance
Ed Sapp
Scott Greene
Megan Robillard
Gary Smith
David Sowell
Ray Weldon
Jason Whitaker
Troy Williamson
Ken Creel
F.J. Eicke
Paul Giordano
Bo Gorham

Attendance-Others
Forbes Darby
Gordon Colvin
Bridgette Froeschke
Shannon McBreen
Chad Hanson
Scott Ward
Dick Brame
Pam Anderson
Melissa Thompson
Beverly Sauls
Todd Phillips
Leah Sharpe
Lauren Anderson

The meeting was convened at 8:30 a.m.

The Ad Hoc Private Recreational Data Collection Advisory Panel met May 17, 2012 at the Gulf of Mexico Fishery Management Council office in Tampa, Florida to discuss private recreational fisheries data collection in Gulf of Mexico fisheries potentially using additional data collection programs that would supplement data currently collected through the Marine Recreational Information Program (MRIP). All twelve members of the advisory panel were present. This was the first meeting for the The Ad Hoc Private Recreational Data Collection Advisory Panel and began with the election of d Hoc Private Recreational Data Collection Advisory Panel (Ed Sapp) and vice-Chair (Scott Greene). The agenda was amended to include discussion of data collection methods other than electronic or tagging programs. The amended meeting agenda was accepted.

The meeting began with a discussion of the Council Charge and deliverables led by Mr. Anson and Mr. Gill (Council representatives). They commented that the charge

for this meeting superseded the charge provided for the AP at the October 2011 Council meeting. Mr. Gill stated that the original charge was not well suited to the skills and expertise of this Panel and the amended charge more closely reflected the input desired from this AP.

Dr. Froeschke gave a brief overview of the stated objectives of this advisory panel meeting. He distinguished between self-reported and self-selected data: Self-reported data: A survey that relies on the individual's own account of experiences (i.e., catch, effort, discard). He also outlined potential problems with accuracy and potential biases during data collection and estimation with these data. Self-selected data occurs when respondents are individuals who volunteer to participate. He stated that data collected from self-selected respondents vary in their susceptibility to bias for self-selected data (Figure 1) as it is typically not a random sample and is affected by known (e.g., angler avidity) and unknown (i.e., variables closely correlated with the decision to participate in a self-selected survey).

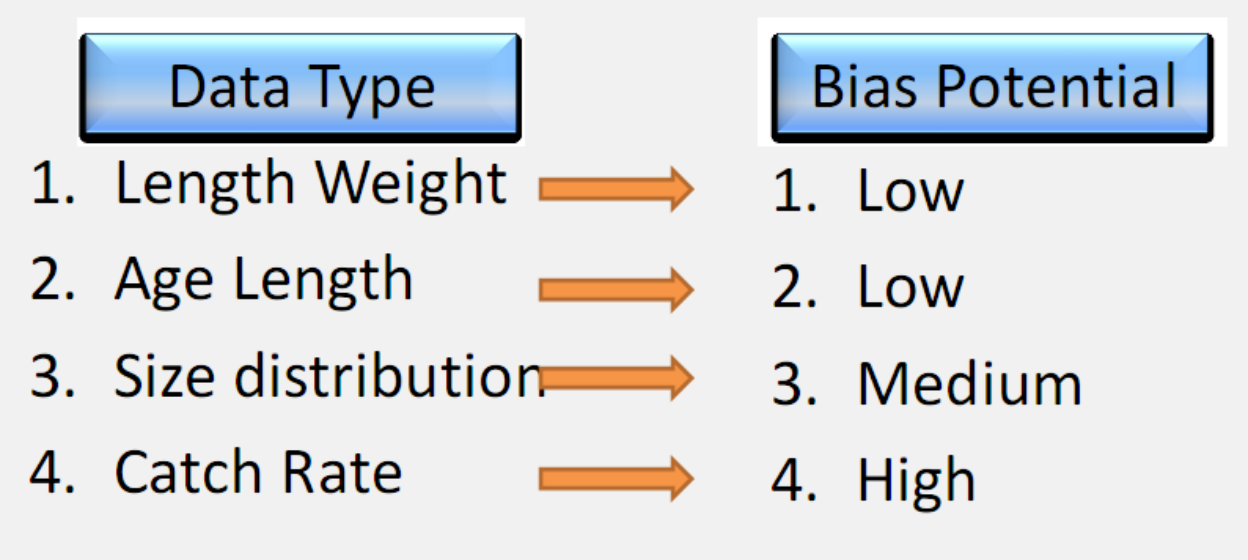


Figure 1: A summary of potential data collected by self-selected data programs and the potential for bias.

1. Innovative data collection systems
    - Accuracy
    - Timeliness
    - Stakeholder Confidence
2. Effective method and survey design requires
    - Clear statement of objectives
    - Adaptive strategy
    - Thorough evaluation of strengths and weaknesses of data collection program

MRIP Program: Overview and Update

Dr. Gordon Colvin provided an update on the status on MRIP improvements and implementation. This program replaced the Marine Recreational Fisheries Statistics Survey (MRFSS) addressing design and potential bias problems in the original MRFSS program that estimates recreational fisheries catch and effort. Dr. Colvin stated that significant changes were made in both the catch and effort estimation procedures in effort to improve accuracy and characterize uncertainty of estimates. The original MRFSS estimation procedure did not accurately characterize uncertainty of estimates (i.e., PSE) limiting the usefulness of this metric for fisheries management decisions. He also reviewed the development of the angler registry that will be used to refine the database of anglers for the effort estimates in the MRIP survey. This transition is ongoing and will be fully implemented in 2013 (check with Forbes). Mr. Whitaker asked if online surveys were planned or included in MRIP surveys. Dr. Colvin responded that they have considered email based surveys but the sample frame is not yet complete enough for use (i.e., too many anglers not using email which could result in biased survey estimates). Mr. Williamson asked if funding had been increased. Dr. Colvin replied that it had been increased incrementally since inception and that funding was adequate but may be inadequate if future programs are needed to improve accuracy and timeliness of catch and

effort estimates. Mr. Greene asked how states with large number of anglers that likely do not participate in EEZ fisheries affect estimates. Dr. Colvin replied that this does not affect estimates so long as the sample frame is completed as this information can be segregated from these data.

Summary of existing electronic data collection programs -- Didden

Mr. Jason Didden (Mid Atlantic Fishery Management Council staff) gave a presentation about the MRIP volunteer angler data workshop that was held February 2, 2012 at the Mid-Atlantic Fishery Management Council (MAFMC - www.mafmc.org). Mr. Didden stated that the webinar of the workshop was recorded and is available at: http://www.mafmc.org/events/volunteerdata.htm and his presentation summarized these findings. Mr. Didden reviewed existing some state electronic data collection programs and discussed potential benefits to accuracy and timeliness of recreational fisheries data estimates as well as potential biases of these data. He mentioned that with opt-in (i.e., voluntary) panels, variables that are closely correlated with the decision to participate have a greater likelihood for bias. Variables that are less closely correlated with the decision to participate in an opt-in panel have a lower likelihood for bias. Like size-age studies, maybe sizes of released fish, site register updating

Four primary findings are the summarized below from the workshop Mr. Didden discussed.

1. Self-reported data has been very important for developing bag/creel and size limit regulations for some states. Predicting the impacts of many bag/creel and size limit regulations requires knowledge of the distribution of lengths of fish caught, including discards. Having enough reported fish lengths facilitates regulatory analysis on critical species such as summer flounder and black sea bass. This is especially true for released fish, as data on released fish is necessary to predict the impacts of any regulation that involves lowering size limits (including slot limits). Self-reported lengths have also been used for allocating striped bass catch between separate resident and migratory fish quotas in the Chesapeake Bay based on fish length.
2. There is a subset of avid anglers who are very keen to provide their data and also very suspect of MRFSS/MRIP data primarily because they (or their friends) were

not interviewed. The concern is how to use such data since those avid anglers may have very different catch rates from the average angler. Also, there may be a tendency for self-reporters to only report successful trips, which would make catch rates from self-reported data appear even higher than the actual average catch rate and bias any estimates that are made based on self-reported data.

3. Some programs have had substantial drop-offs in participation after the first year or two. Incentives, such as obtaining a bonus fish tag, shirts, or other rewards can help participation. Acknowledging receipt of data, allowing people to see that their data have been recorded, and providing feedback about how the data have been used is equally critical. Stating upfront how data are likely to be used is important to establish accurate expectations. Some have, but quite a few programs have not fully settled into a regular suite of outreach methods that they feel are sufficient to obtain reports from a large and diverse group of anglers that will participate consistently over the long run.

   Programs need to make it easy to participate. For example, the Virginia rack collection program provides freezers at certain ports for anglers to donate carcasses for length measurements and age samples. The donation aspect may be a sufficient incentive to anglers as the samples can contribute to stock assessments and other analyses to track the health of fish stocks. The most popular programs have material incentives along with a history of their data getting used in assessments or management.

4. New technology has made a variety of reporting options possible. For example, GPS-equipped smartphones allow apps to be created to upload real-time or near real-time reports with either rough or detailed location information. Satellite uplinks can also facilitate uploading in remote or offshore locations. Real-time uploads can also facilitate assignments of dock-side validation for retained catch, but validation of discarded catch is more difficult, requiring expensive and/or impracticable human observers or possibly video monitoring technology. MRIP is exploring video monitoring technology in other projects.

At the conclusion of the presentation Mr. Smith noted problems of misreporting of self-reported data. Mr. Didden acknowledged that this problem would persist with any self-reported data system. Mr. Ed Sapp offered that any new data collection system would need a validation mechanism built into the process in some way.
Listen into recording at 1030 for Bo Gorham question and Troy Williamson

Following the presentation from Mr. Didden, the AP began discussing objectives of enhance drafting a list of desired features and potential issues when evaluating enhanced data collection options. One suggestion was some type of mandatory reporting by private anglers. However, several AP members noted difficulties in enforcement, reporting mechanisms, and stakeholder support. A second suggestion was to incorporate technology that allowed for anglers to participate in MRIP who are not currently participating in it. Problems were acknowledged with self-selected data streams and the importance of stakeholder buy-in was discussed. These data could benefit anglers by providing additional information about their trip for personal use (private angler log) as well as providing data about released fish and perhaps infrequently caught species that may not bell well surveyed by MRIP. The AP also suggested that additional programs would not have to encompass all species included in the MRIP and could instead focus on species under management by GMFMC in federal waters. The AP also considered the ability to provide more timely reporting an important attribute of any new data collection program. Finally, the AP recommended that the MRIP and Council PR incentives to get people to participate through a positive involvement in the process. Find some mechanism to help anglers understand how the data is collected and used to determine estimates in order to build angler confidence.

Shortcomings of MRIP

The AP discussed some of the shortcomings of the MRIP. Mr. Sapp noted that rare species catch rates may be poorly estimated (i.e., mean may be inaccurate or variance estimate too high to yield management advice). Dr. Colvin agreed that there is a clear challenge with rare-event species. Mr. Sapp also stated that the current two-month reporting wave and subsequent lag for processing and effort estimated (~ 45 days) is too long to support in-season management advice for many species (e.g., red snapper). Mr.

Gorham stated that this is concerning to stakeholders as species with short seasons may have to be closed without current information about harvested catch. Dr. Colvin stated that the reporting delay for MRIP could be reduced although this would require additional agency resources.

Advisory Panel members discussed the lack of stakeholder confidence in MRIP and the need to get engagement and support of anglers in any new data collection program. Mr. Whitaker suggested incentives to improve buy-in. Mr. Forbes Darby (NOAA Fisheries) expressed the importance of outreach to explain how data are collected and used and how individual anglers fit in to the program. This will be critical if new data collection programs with enhanced reporting were considered as anglers need to be informed about how these data are used to affect stock assessment and management decisions.

iSnapper

Ms. Megan Robillard (Harte Research Institute for Gulf of Mexico Studies, Texas A&M-Corpus Christi) introduced an electronic data collection program used to collect catch and effort data for for-hire vessels in the Gulf of Mexico (*iSnapper*). Ms. Robillard stated that this technology could be adapted for use by private anglers and could improve timeliness and potentially accuracy due to rapid electronic reporting of fisheries data. The *iSnapper* is a "smart phone" application that functions as an electronic logbook. An on-going pilot program is evaluating the acceptance and efficacy of this technology, and there has been very positive support for this technology from the captains involved in the pilot study. A noted shortcoming of current data collection is the lack of socio-economic data. *iSnapper* is testing the applicability of collecting these data with an "app" from participants in the fishery. The pilot study focused on how the captains and anglers would receive the survey rather than the actual data collected from it. However, preliminary results were promising as some reported trips were also intercepted by Texas Parks and Wildlife surveys and data were largely agreeable across survey types. Ms. Robillard closed by reviewing opportunities and challenges of the programs. The strengths are the adaptability, potential or real-time data collection and reporting, and stakeholder support. Challenges lie in validation, potential bias of catch (e.g., angler

avidity), and reporting requirements and the effect on catch estimates (i.e., voluntary vs. mandatory). At the conclusion of the presentation several questions were posed by AP members. Mr. Sapp asked if reports were time-consuming. Ms. Robillard stated that that reporting was fast and flexible. Mr. Sapp also asked if participants have stayed active in the program and if funding sources have been identified. Ms. Robillard answered that participation and reporting rates had not declined during the pilot program and they are seeking funding sources for possible expansion of the program.

Evaluation of phone and web-based applications.

Following the *iSnapper* presentation the AP discussed the utility of phone and web-based applications to enhance data collection in Gulf of Mexico fisheries. Mr. Gorham stated and the AP agreed that these programs do have merit yet they could not address all challenges related to private recreational fisheries data. Mr. Chad Hanson (audience member) asked what the primary goal was and that careful consideration of the objective would be necessary when evaluating data tools. Mr. Whitaker suggested that Angler Action (http://angleraction.org/angleraction/login/auth) could be a useful tool in enhancing data collection capabilities. Ms. Robillard stated that a number of platforms could be used in conjunction to support angler preferences and data collection needs. The Panel also discussed the merits of voluntary vs. mandatory participation by anglers. Mr. Greene spoke in opposition to mandatory collection although others would consider mandatory reporting if clear demonstration of the benefits could be made. In general, mandatory reporting (either in a census or survey design) would lend itself more readily to Gulf-wide catch and effort estimates. Mr. Sapp suggested that a pilot program may be an appropriate mechanism to evaluate these trade-offs.

Offshore Permits

An alternative suggestion to improve data collection was to require a license for offshore fishing to aide in identification of the number of anglers fishing for federally managed species. As the majority of federally managed species are harvested from vessels both individual and boat licenses were discussed. Mr. Sapp asked if this would apply to specific species or all managed species. Mr. Paul Giordano inquired how issues such as angler avidity could be addressed.

Mr. Ray Wheldon introduced a proposal for an offshore fish species permit. This would be patterned after the highly migratory species permit. Mr. Anson stated that considerable challenges would remain regarding validation of such programs. Like other data collection programs the Panel recognized there would be specific strengths and weaknesses of this type of program and would need further discussion to flesh out details.

Tagging

The Gulf Council asked that the Advisory Panel discussed tagging systems for data collection purposes in Gulf Fisheries. Dr. Froeschke stated that there are a number of tagging programs employed nationally and internationally for a variety of purposes and that validity would be affected by specific objectives outlined by the AP and the Council. Mr. Gary Smith outlined a potential program using red snapper as an example. He described a program requiring a tag affixed to landed red snapper focusing on the objectives simplicity and freedom to target fish when desirable to the angler as opposed to strict season limits. The Panel discussed potential problems with determining how many tags would be released, the fair and equitable distribution of these tags and if this would enhance accuracy and timeliness of fisheries data. The Panel generally agreed that a fixed number of tags could help achieve the desired number of harvested fish although it would be difficult to distribute these in a fair and equitable manner. Others spoke in opposition to a fixed number of tags which could compromise the ability to estimate harvest from tags. After considerable discussion Mr. Greene introduced the following

Motion: That no tagging system be considered as part of the Panel's recommendation to the Council. Motion carried 7 to 5.

The Advisory Panel then discussed priorities for data collection programs. The AP suggested 1) Phone/web based application(s), 2) Boat permit for Federal waters. Ms. Robillard stated that there is considerable momentum for their web-based *iSnapper* program and this support would aid the continued development of the program. Regarding boat permits, Mr. Gill said that the Council has considered boat permits previously yet there have been road-blocks preventing their implementation. For example, the agency NMFS has not previously supported this type of programs and

deliverables were not adequate. There was concern that the states would be unwilling to lead/initiate such a program. Mr. Gill urged the AP to develop rationale to overcome these challenges if boat permits were to be considered. Mr. Sapp asked that Council staff develop additional background materials to evaluate utility of a boat permit. Mr. Gill also added that implementation of additional programs may be difficult in a period of declining resources in federal agencies. Mr. Whitaker stated that existing state registration databases could be used to refine the database of anglers engaged in fishing for federally managed species. However, these methods are simply proxies to fishing effort and would require validation and a thorough assessment of the strength of the relationship between boat permits and fishing effort. These challenges would have to be considered prior to implementation but the Panel felt the potential for this system merits further investigation in a subsequent meeting.

Motion: The Panel recommends that the Council allow the Panel to pursue electronic based programs utilizing web and phone-based applications. Program would be used to enhance the Marine Recreational information Program already in place. Motion carried unanimously.

Mr. Gorham states that additional background materials are needed along with further deliberation in an additional Advisory Panel meeting. Dr. Froeschke suggested that satellite imagery could be considered as a mechanism to count boats to estimate fishing effort. Some Advisory Panel members were interested in this possibility and this could be evaluated in a future meeting.

Motion: The panel recommends exploring the options of a boat permit, existing registration information, and satellite imagery processes to narrow the sample frame required to obtain improved fisheries effort information. Motion carried with no opposition.

A second motion was also made regarding this topic.

Motion: The Panel requests that the Council authorize additional meeting time to further explore and make additional recommendations to the council on the subjects

of web-based phone apps, public outreach, boat permits, and other applicable subjects. Motion carried with no opposition

Outreach

The Advisory Panel was charged with providing recommendations to educate the private recreational anglers on the issues relating to data collection, emphasizing MRIP. Mr. Williamson suggested that most anglers remain unfamiliar with MRIP and its objectives. He further noted the challenges of educating the public about this process. He suggested a broad-based approach to reach and educate the public. Mr. Williamson noted that Texas used a variety of platforms to reach out to the public about the protection of seagrass beds.

Motion: The Panel recommends that the Council allow the Panel to further explore education and outreach to recreational anglers to educate them on MRIP. Motion carried with no opposition.

Other Business

The ad advisory panel adjourned at 12:40 p.m. Eastern Time on May 25, 2011.

Meeting was adjourned at 4:00 p.m.

Meeting Summary Report
Gulf of Mexico Fishery Management Council
Ad Hoc Private Recreational Data Collection Panel
February 26, 2013 – Tampa, FL
Tampa, FL

Attendance

AP members	Council and staff	Others
Ken Creel	Harlon Pearce, Council Member	Rich Malinowski, NMFS
F.J. Eicke	John Froeschke, Council staff	David Buker, NMFS
Bo Gorham	Mark Mueller, Council staff	Dennis O'Hern, FRA
Scott Greene	Karen Hoak, Council staff	Chad Hanson, Pew
Megan Robillard	Beth Hager, Council staff	David Buker, NMFS
Ed Sapp	Carrie Simmons, Council staff	Bob Gill
Gary Smith	Steven Atran, Council staff	Cathy Gill
David Sowell		Gordon Colvin, NMFS
Ray Weldon		Roy Crabtree, NMFS
Jason Whitaker		Mike Colby, CMA, CFA
Troy Williamson		Elaine Harrell, SERO

The Ad Hoc Private Recreational Data Collection Advisory Panel met February 26, 2013 at the Gulf of Mexico Fishery Management Council office in Tampa, Florida to discuss private recreational fisheries data collection in Gulf of Mexico. All twelve members of the advisory panel were present. This was the second meeting for the Ad Hoc Private Recreational Data Collection Advisory Panel. The agenda was amended to include discussion of fish tags, an update on the red snapper season length, and discussion of the future of private recreational fisheries management. The amended meeting agenda was accepted. The summary minutes from the May 27, 2012 meeting were adopted as written.

The meeting began with a discussion of the Council Charge and deliverables led by Mr. Sapp and Mr. Pearce (Council representative). The intent of this meeting was continued discussion of opportunities to improve data collection efforts of private recreational anglers whose activities may not be fully captured by existing surveys.

At the May 2012 meeting, satellite based technologies were suggested as one complementary method to improve effort estimates in recreational fisheries. Mr. Mueller gave an overview presentation about using satellite imagery for detection of small vessels, explaining

that while radar and aerial imagery has been successfully used for vessel detection for some time, there is a recent trend in the literature towards using higher resolution optical satellite imagery for the same purpose. As those data become increasingly available, they offer the potential to detect higher numbers of small vessels in a given area at a given time, assuming appropriate imagery is obtained and properly processed. Several international studies have been published demonstrating this capability, although most of those have been relatively small-scale proof of concepts.

Mr. Mueller summarized the technologies involved and the relative capabilities of several specific satellite sensors along with estimates of their relative costs and illustrated that directly purchasing imagery from vendors for very large areas such as for all state waters would quickly become cost prohibitive (on the order of hundreds of thousands of dollars). High-resolution optical imagery costs in the neighborhood of $10 per square kilometer, but is variable depending on a number of factors such as if the imagery is archived or newly tasked.

Mr. Mueller outlined some of the limitations involved beyond cost constraints. First, there may be a relative scarcity of existing/archived high resolution imagery in offshore areas since there is generally less consumer demand for those areas—most users need terrestrial imagery. Second, poor weather in the form of cloud cover or choppy seas can limit usable areas and potentially introduce bias since fishing effort is often weather dependent. Third, accurate automated detection algorithms require time and expertise to develop and likely cannot distinguish between different types of small vessels (such as for-hire charter boats and private recreational boats). Mr. Mueller suggested possible strategies to address these limitations. Designing appropriate and unbiased sampling routines could allow reasonable inference while minimizing costs. For example, focusing on more limited geographic areas informed by GIS-based habitat analyses, and/or sampling the same small area over time (e.g., an area offshore of Mobile Bay). Additionally, other entities (e.g., NOAA, USGS, National Geospatial Intelligence Agency, universities) may be able to provide previously-acquired imagery and/or existing detection algorithms. Such limitations would have to be addressed in order to answer questions of interest about overall fishing effort. Given that the method has potential, particularly as data availability increases and costs decrease, some AP members expressed support for exploring imagery analysis and other types of innovative data collection approaches in the future.

Dr. Gordon Colvin gave a presentation about angler reporting surveys including survey types (i.e., census and sample), use of survey data, and on-going Marine Recreational Information Program (MRIP) projects. He described a census survey where complete data from all participants results in a total count of measured variables. This requires a complete list of the primary sampling unit and that they are included in the fishery. A census also requires validation and that regulations are enforceable and enforced. Deviations from these assumptions lead to an incomplete census which can be difficult or impossible to expand to estimates of the variable of interest.

Sample-based surveys collect data from a sample of the components of a fishery and expand to estimate the total. The estimate includes both a point estimate and a margin of error. The sample must be representative of the entire population. Assumptions of the survey need to be explicit and tested (untested assumptions introduce potential for bias). In properly designed surveys the variance estimate can be reduced through increased sampling effort. The desired precision is an important consideration of any survey design.

Dr. Colvin also mentioned probability-based panel designs. Although untested, this design would recruit a sample of participants and their fishing activity over time would be recorded and later expanded to estimate catch and effort for the fishery of interest. This approach could help resolve bias and timeliness issues associated with large surveys. Dr. Colvin reviewed the status of the pilot project for electronic charter boat reporting. This final report is in peer-review and is expected to be released in Spring 2013. Results from this survey will inform future decisions regarding data collection on for-hire vessels.

The Advisory Panel discussed the potential use of permits or registries to improve catch or effort estimates. Mr. Pearce described a potential program for red snapper modeled after the highly migratory species permit where anglers would register as red snapper fishermen. This could improve the sample frame of anglers targeting this species and reduce the likelihood of exceeding the allowed harvest for this species. In this potential program, anglers would get a permit the day before to catch their daily bag limit of red snapper the following day. Permits would be unlimited until the quota is caught and there would be no banking of permits. Funding of the program would need further discussion. This would not apply to charter or headboats and concern was raised about initiating a derby fishery. The AP discussed this topic at length and several members indicated a preference for a vessel permit as opposed to an individual angler

permit. Rationale was that a vessel permit was easier, required less paperwork, and would aid in compliance as many anglers fishing off others' vessels may be unaware of such programs. Funding was a concern as any fees collected from a permit would go to the Treasury rather than specifically funding the program because under Magnuson Stevens Act of 2006, funds are only allowed to be collected to cover the cost associated with issuing the permits, with resulting funds sent to the United States Treasury. Mr. Sapp indicated that the Gulf States Marine Fisheries Commission (GSMFC) could administer the program but this would not resolve funding issues. The Panel recommended continued dialogue with GSMFC to further explore this idea. Mr. Sapp stated his concern that the creation of a permit could lead to an ability to limit the number of permits issued at some future date. Mr. Pearce stated that was not his intent, nor desire for any such program. After discussion, the committee passed the following two motions.

Motion: To implement a private recreational boat permit system to improve data collection. The permit would be required for the harvest of any fisheries under the management of the GMFMC. The intent of the permit shall not limit entry of individuals into the fishery.

Motion carried with 2 opposed.

Motion: Require daily permits for the daily bag limit for the private recreational boat owner to be issued for Red Snapper, to be filled out with the necessary information as required by the GMFMC, in order to receive more permits that are unlimited in nature until the quota is caught.

Motion carried 7 to 4.

The AP recognized the need for rationale for the above motions as it is necessary to demonstrate expected benefits of creating additional management programs. A list of expected results are below:

Selling Points for boat permits

- **Real time data**
- **Data from private docks**
- **Data can be species specific**
- **Enable panel surveys**
- **Better define sample frame**

- **Improve discard data**
- **Reduce recall error**
- **The mechanism would be in place for further species-by-species data collection**
- **Electronic and internet based sales points**
- **Create personal angler logs**
- **Data can be used for multiple purposes – creates historical record**
- **Create buy in for the system for every angler – confidence in data**
- **May provide another source of angler contact data for MRIP**

The Advisory Panel also considered other approaches to improve data collection for private recreational fisheries. Given the promising development of electronic data submission platforms (e.g., *iSnapper*, AnglerAction), the AP recommends that the Council develop a pilot program to test feasibility of such programs in the private recreational fishery. As Dr. Colvin stated, voluntary programs are not able to generate unbiased estimates of catch or effort and the AP recommended a panel (or probability) based approach.

Motion: For Council to develop a pilot electronic or web-based program using a panel-based approach for the collection of private recreational data.

Motion carried with no opposition.

The expected benefits of this program are similar to that of the permit based approaches in that timeliness and accuracy of data could be improved with realized benefits to stakeholders.

Ms. Megan Robillard (Harte Research Institute for Gulf of Mexico Studies, Texas A&M-Corpus Christi) provided an update on their electronic data collection program used to collect catch and effort data for for-hire vessels in the Gulf of Mexico (*iSnapper*). *iSnapper* is a smart phone application that functions as an electronic logbook. Ms. Robillard stated that this technology has been used by some for-hire operators since 2011 and participation has increased every year. Results have been informative and some of the resulting data are being incorporated into the on-going red snapper stock assessment. Ms. Robillard closed by stating that this platform could be expanded for use by private recreational anglers if desired.

The advisory panel discussed MRIP communications and outreach. Mr. Gorham indicated that consistency in the distributed message was critical and he expressed confusion about how MRIP harvest (i.e., what is reported on their web-query tool) is incorporated into the

total harvest estimates. Dr. Colvin explained that this is difficult as total harvest incorporates other sources (e.g., headboat landings, Texas landings) and MRIP has plans to develop outreach materials to explain this mechanism (MRIP data user's manual). Mr. Greene suggested that focus groups may help refine MRIP communications. Dr. Colvin indicated that they have been working with focus groups and doing so has been useful and there are plans to integrate their suggestions into future MRIP communications. Mr. Smith noted that data can be difficult to find and that adding a note to appropriate MRIP landings summaries about Texas landings not being included in MRIP would be helpful.

The advisory panel meeting closed with a discussion of the long-term (5-10 yr) vision of the recreational red snapper fishery. The panel stated that predictability of season is critical and stakeholder buy-in requires transparency. Interest was also expressed in granting more flexibility in fishing days and that allocation may need to be re-examined.

The meeting adjourned at 4:00 pm.