

1 GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

2
3 SUSTAINABLE FISHERIES COMMITTEE4
5 Webinar6
7 NOVEMBER 30, 20208
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 11 Kevin Anson (designee for Scott Bannon).....Alabama
 12 Leann Bosarge.....Mississippi
 13 Roy Crabtree.....NMFS
 14 Dave Donaldson.....GSMFC
 15 Martha Guyas (designee for Jessica McCawley).....Florida
 16 Robin Riechers.....Texas
 17 Chris Schieble (designee for Patrick Banks).....Louisiana
 18 Greg Stunz.....Texas
 19 Ed Swindell.....Louisiana
 20 Troy Williamson.....Texas

21
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 24 Jonathan Dugas.....Louisiana
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 26 Tom Frazer.....Florida
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2 Clay Porch.....SEFSC
3 Ken Riley.....NOAA

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TABLE OF CONTENTS

1
2
3 Table of Contents.....3
4
5 Adoption of Agenda and Approval of Minutes.....4
6
7 Action Guide and Next Steps.....4
8
9 NOAA Update on Aquaculture Opportunity Areas.....5
10
11 Final Action Amendment Reef Fish 48/Red Drum 5: Status
12 Determination Criteria and Optimum Yield for Reef Fish and Red
13 Drum.....26
14
15 Adjournment.....42
16
17 - - -
18

1 The Sustainable Fisheries Committee of the Gulf of Mexico
2 Fishery Management Council convened via webinar on Monday
3 morning, November 1, 2020, and was called to order by Chairman
4 Dale Diaz.

5
6 **ADOPTION OF AGENDA**
7 **APPROVAL OF MINUTES**
8 **ACTION GUIDE AND NEXT STEPS**
9

10 **CHAIRMAN DALE DIAZ:** I would like to call the Sustainable
11 Fisheries Committee to order. The members of the committee are
12 myself as Chair, Dr. Stunz as Vice Chair, Mr. Schieble, Mr.
13 Anson, Ms. Bosarge, Dr. Crabtree, Mr. Donaldson, Ms. Guyas, Mr.
14 Riechers, Mr. Swindell, and Mr. Williamson.

15
16 The first order of the committee is the Adoption of the Agenda.
17 I would like to make one small modification to the agenda. I
18 would like to take up Item Number VI ahead of Item Number V,
19 just swap those two, and we do have a pretty substantial agenda
20 for the amount of time that we have, and I want to make sure
21 that we get Item Number VI taken care of with the time that we
22 need. I know all of the agenda items are important.

23
24 Also, I would like to give the staff a heads-up that, after we
25 go through Agenda Item Number IV, the NOAA Update on Aquaculture
26 Opportunity Areas, I would like the appropriate staff member to
27 be ready to inform the council on the motions that were passed
28 by the AP relative to that agenda item. With that, is there any
29 other changes to the agenda, or any other business for this
30 committee? Hearing none, is there a motion to adopt the agenda?

31
32 **MR. DAVE DONALDSON:** So moved.

33
34 **CHAIRMAN DIAZ:** All right. It's moved by Dave Donaldson, and I
35 heard a second in there, but I didn't hear who it was.

36
37 **DR. GREG STUNZ:** That was me. I will second it.

38
39 **CHAIRMAN DIAZ:** Thank you, Dr. Stunz. It's been moved and
40 seconded. Any opposition to adopting the agenda? The agenda is
41 adopted. Next up on the agenda is the Approval of the October
42 2020 minutes, and are there any additions or corrections to the
43 minutes? Hearing none, is there any opposition to adopting the
44 minutes? Hearing none, the minutes are adopted.

45
46 Next is the Action Guide and Next Steps, and I would ask that
47 Dr. Diagne take them up as each agenda item comes up and just go
48 over the action guide and next steps just prior to each agenda

1 item. First up on the agenda is going to be Agenda Item Number
2 IV, NOAA's Update on Aquaculture Opportunity Areas, and so, Dr.
3 Diagne, did you have anything you wanted to say about that from
4 the action guide and next steps perspective?

5
6 **NOAA UPDATE ON AQUACULTURE OPPORTUNITY AREAS**

7
8 **DR. ASSANE DIAGNE:** Good morning, Mr. Chair. No, not much, but
9 just to say that Dr. Beck and Dr. Riley are going to give a
10 presentation, and, as you recall, they did commit to giving this
11 council updates, and so this is one of those updates, and they
12 have a presentation, and we will discuss the aquaculture
13 opportunity areas. Thank you.

14
15 **CHAIRMAN DIAZ:** Thank you, Dr. Diagne. With that, Dr. Beck or
16 Dr. Riley, if you all are ready to start, you can proceed.
17 Thank you.

18
19 **DR. JESSICA BECK-STIMPERT:** Good morning, everyone. This is
20 Jessica Beck-Stimpert, and I'm the Senior Regional Aquaculture
21 Coordinator for the Southeast Region of NOAA Fisheries here in
22 St. Pete. Presenting with me today is Dr. Ken Riley from NOAA's
23 National Ocean Service, and, today, we're going to spend some
24 time explaining to you what AOAs are and a process for
25 identifying AOAs, and then Ken is also going to spend some time
26 explaining the science behind the AOAs.

27
28 We're going to also talk about the current request for
29 information that we have out for public comment through December
30 22, which we have very specific questions for the council and
31 stakeholders to provide input on as we move forward with
32 identifying aquaculture opportunity areas here in the Gulf of
33 Mexico as well as in southern California, in both federal waters
34 for those areas and also information and insight into where we
35 should be looking in the next few years for aquaculture
36 opportunity areas across the U.S.

37
38 Just a recap of the Executive Order that was passed in May of
39 this year, and this Executive Order, 13921 -- In this Executive
40 Order, the Secretary of Commerce was directed, in consultation
41 with other federal agencies and regional fishery management
42 councils and the states and any tribal governments, to begin an
43 identification process of aquaculture opportunity areas.

44
45 Each year, over the next five years, NOAA has been tasked as the
46 agency to identify two aquaculture opportunity areas. For this
47 year, we are beginning in federal waters of the Gulf and
48 southern California. We will also repeat the aquaculture area

1 process, in terms of beginning this three-year process in other
2 areas, over the next four years.

3
4 Within the first year, which is where we are right now, we are
5 working to identify areas within the Gulf and southern
6 California in federal waters that may be conducive to
7 aquaculture, and, after this first year is over, we will begin
8 the process of completing a programmatic environmental impact
9 statement for both of those areas, and so they will be separate
10 PEISs for the Gulf and southern California federal waters.

11
12 Again, as I mentioned, we will repeat this process over the next
13 four years in other areas, and we have yet to identify what
14 those are, and that's part of this request for information
15 process, and we will then also begin the process of the
16 programmatic EISs for additional areas and additional years, as
17 we move forward, and so each of these areas that we identify --
18 For example, here in the Gulf, we're in this first year of
19 soliciting public input and putting together the data that we're
20 receiving, both internally for other federal and state agencies
21 and from the public. Then we will, in May, begin the process of
22 the NEPA analysis, the programmatic EIS, and that should take
23 about two years.

24
25 We anticipate that we would wrap up the PEIS process and have
26 aquaculture opportunity areas identified in both the Gulf and
27 southern California federal waters sometime in May of 2023, and
28 so it is quite a lengthy process, and there are many steps that
29 involve public input, and I will talk about those a little bit
30 in the coming slides.

31
32 What is an aquaculture opportunity area? As I mentioned, these
33 are -- This is a process that will take about three years to
34 complete for each aquaculture opportunity area. Aquaculture
35 opportunity areas are -- This is a planning exercise, and,
36 essentially, we are doing some of the initial legwork that an
37 individual permittee would have to do, in terms of identifying
38 areas and vetting the process through the councils and
39 commissions, as well as through stakeholders and gathering
40 information.

41
42 Again, this is just a planning process, and this does not negate
43 any type of federal or state regulations or any other type of
44 requirements that would apply to the permitting process, and so,
45 essentially, at the end of this process, once an area has been
46 identified in the Gulf of Mexico, the applicant, or applicants,
47 that would like to site an aquaculture operation in any of these
48 AOAs would have to begin the process of the permitting process.

1
2 They would have the information available to them, which would
3 tell them whether a site could be conducive for aquaculture, or
4 favorable for aquaculture, conditions, but they would still have
5 to go through all of the regulatory and consultation
6 requirements for that particular site.

7
8 Here's a slide that just sort of lays out the timeline that I
9 mentioned, and it gives you a visual that we're going to be
10 doing over the next several years, and so you can see this is a
11 multiyear process, and we're going to be doing several things at
12 once as time goes on, and, every year for the next five years,
13 we're going to undergo a process of vetting these preliminary
14 AOA areas and completing these programmatic environmental impact
15 statements for each of those.

16
17 Right now, we're working, again, on the Gulf of Mexico and
18 southern California in federal waters, and we hope to wrap those
19 up in May of 2023, and then we're going to be considering other
20 geographic areas of the U.S. over the next two to five years,
21 and so we're actually going to begin the second round of AOAs
22 sometime this spring, and a lot of that information and where we
23 go will be based on information that we get from this request
24 for information, and that comment period is open through
25 December 22.

26
27 You can see, by looking at this table, that there's going to be
28 a lot of overlap, and we're going to be very busy over the next
29 five to seven years, and, by the end of May of 2027, we expect
30 that we will have identified ten areas, aquaculture opportunity
31 areas, two for each year over five years, and have completed a
32 programmatic environmental impact statement for each one, and we
33 have quite some time to work through this process, and it's our
34 goal that each three-year process for each AOA will result in
35 the identification of areas that, through science and a
36 community-based approach, is determined to be environmentally,
37 socially, and economically suitable for aquaculture.

38
39 Again, a planning process, but the applicants that would like to
40 site in these areas would have to go through all of the
41 permitting requirements and the consultation requirements that
42 they normally would for any type of project.

43
44 As I mentioned for this first round, we have identified federal
45 waters off of southern California and the Gulf of Mexico as the
46 first two AOAs, and this was done for a variety of reasons.
47 There's been a lot of interest in both of those areas from
48 industry for developing aquaculture in federal waters in

1 southern California and the Gulf of Mexico.
2
3 As a result, we have gathered a lot of information, and a lot of
4 meetings have been had with councils and commissions and various
5 stakeholders in those regions to gather additional information
6 and insight on where areas -- Where these projects should and
7 should not go, and so these seem like two good areas for us to
8 really begin this process, rather than starting from scratch in
9 some other part of the U.S., where we may not have had that
10 interest prior.
11
12 Ken can talk a little bit about the available state spatial
13 analysis data that NOS has been able to put together over the
14 past three years for both of these areas, but, again, we do know
15 that there is industry interest in both of these areas in
16 developing sustainable aquaculture operations.
17
18 This is just an idea of where we are in the process. As I
19 mentioned, the EO dropped in May. In August of 2020, it was
20 announced that the Gulf of Mexico and southern California were
21 going to be the first two regions to look at for aquaculture
22 opportunity areas. At that time, NOS -- James Morris and Ken
23 Riley and their teams began to start collecting data, additional
24 data, for the siting analysis.
25
26 We continued, for this process, outreach, both internally and
27 externally, to introduce the AOA concept, and we've been to the
28 council several times, and we have talked to the Gulf
29 Commission, just last month, and we have had some additional
30 meetings with various stakeholders, as well as several national
31 listening sessions, and we also had a Gulf of Mexico listening
32 session just a few weeks ago, and that was also repeated in
33 California.
34
35 We have been working to put all of this together, and we put out
36 a public notice request to request input on siting in these two
37 areas, and to begin thinking about where to focus on for the
38 next few years in this next round of AOAs, as well as in the
39 coming years.
40
41 Coming up, Ken can talk about NOS putting together an
42 aquaculture opportunity atlas, and that would be based on this
43 public comment that we received, as well as a lot of the
44 information that they have been gathering over the past few
45 years and through this process to identify areas that will
46 eventually go into an alternative, or a set of alternatives, for
47 the programmatic EIS process. In May of 2021, we hope to
48 announce those preliminary AOA alternatives and begin the PEIS

1 process.

2
3 This public process for AOAs, again, the request for information
4 was released a couple of months ago, back in October, and it
5 will take us through the end of -- Through December 22, and so
6 we are still accepting public comment.

7
8 Information that we receive may be used in the PEIS process to
9 develop those preliminary alternatives, as well as to determine
10 those future AOA efforts, as I mentioned, and then we will begin
11 the process of putting together a notice of intent to prepare a
12 PEIS, and we expect that to happen hopefully sometime this
13 coming May, May of 2021, and to have a draft PEIS out in about a
14 year after that for public comment.

15
16 There will be a lot of touchpoints through this process, and we
17 have a public comment period open now. Once the atlas comes
18 out, we will also be coming back to the council and commission,
19 and then you all know some of the preliminary areas that we
20 believe may be falling out through that process, and then, of
21 course, through the NEPA process, there are various touchpoints
22 and public comment points through that process as well.

23
24 After this three-year process of identifying AOAs, and, again,
25 we expect to complete this process in federal waters of the
26 Gulf, and also a separate process in federal waters off the
27 southern California waters, in May of 2023, and we would then
28 expect industry, folks in the industry, to step up and submit
29 permit applications for those areas, through whichever
30 permitting agency, federal agencies, would be applicable at that
31 time, and these operations could be finfish, shellfish,
32 macroalgae, or a combination thereof, and so that would --
33 Depending on what the type of aquaculture would be, then we
34 would expect them -- If they were finfish, they would need a
35 discharge permit from the EPA. If there weren't any finfish
36 being grown, or any other inputs into the body of water in that
37 AOA, then we would expect that it would primarily be a process
38 driven by the Army Corps.

39
40 The aquaculture is not required to be in an aquaculture
41 opportunity area, and I just want to make that very clear. We
42 have had several projects in the Gulf of Mexico and in southern
43 California federal waters in the previous years, where we have
44 not had the AOA process at that point, and, even when we do
45 begin this process, we may still see folks from the industry or
46 researchers have interest in areas outside of what we may be
47 considering for AOAs where they would like to site operations.

48

1 Really, it's a proactive measure to do these -- To go through
2 this AOA process, where we're doing some of the legwork for
3 these potential applicants, but they can look elsewhere, of
4 course, and the Gulf of Mexico is a very large place, and we
5 would expect that there may be interest in other areas of the
6 Gulf that would be outside of the AOAs, and the same for
7 southern California, and the same for any other AOAs we may be
8 looking at in the future in other areas of the U.S.

9
10 Also, I just want to mention too that the identification of AOAs
11 would not prohibit other legal activities, and it is not a
12 process that we're working on that would say that only
13 aquaculture could happen in these areas, and we're not looking
14 to exclude other uses, but we're simply looking for some of the
15 best areas, this year in the Gulf and in southern California
16 federal waters, that would be conducive for aquaculture.

17
18 One thing that I also want to mention too, and I can't remember
19 if this is on any of the other slides, is, even though we're
20 looking at federal waters during this first round, if any state
21 was interested in AOA development in their state waters, we
22 would work with that state, but it would have to be something
23 that the state is onboard for. This is something that they
24 would have to be open to, and we would work with that state to
25 develop AOAs in their area.

26
27 As I mentioned before, permitting is still required for AOAs,
28 and we are just going through a planning process, and this would
29 not negate the necessity for any operation or industry members
30 to gather and secure the appropriate permits or consultations
31 for their particular project, and so they would still have to
32 comply with all the federal and state laws that are applicable,
33 the Clean Water Act, the Rivers and Harbors Act, any of the
34 consultations through the Endangered Species Act, essential fish
35 habitat, et cetera.

36
37 We will consider potential impacts to protected species and
38 habitats at multiple points in the process, and we've already
39 had some of this discussion with folks about just identifying
40 these areas, but this is something that will also, again, be
41 considered during the actual permitting process.

42
43 We do anticipate that NOAA will still play a role in
44 coordinating with other federal and state permitting agencies,
45 through the AOA process, and we will include information on the
46 PEIS, to help inform any future permitting needs, and so we
47 anticipate that we will still continue to be a part of the
48 process, even whenever permitting does occur, even though we

1 aren't issuing any permits for aquaculture at this point, and we
2 have played a very large coordination role, both in the Gulf and
3 in southern California, with other federal and state agencies,
4 as well as stakeholders, and so we anticipate that we will still
5 be involved in the process, but just not as a permitting agency.

6
7 Some of the benefits of AOAs, I have already mentioned that this
8 will help maximize -- Identifying AOAs in completing the
9 programmatic environmental impact statement will help maximize
10 the compatibility of aquaculture with other ocean uses and help
11 us define specific areas, the most suitable areas, for
12 aquaculture to occur.

13
14 This also is providing some of the background siting and
15 environmental analysis that any applicant would have to do on
16 their own, and so this is providing some of that initial
17 information that they would have to go through during the
18 permitting process.

19
20 Key take-aways and common questions that we have heard
21 throughout this process, just because the federal waters of the
22 Gulf of Mexico and southern California have been selected as the
23 first areas that we're looking at for AOAs, it doesn't mean that
24 the entire Gulf federal waters or entire federal waters off of
25 southern California would be designated AOAs.

26
27 We're actually anticipating the areas to be large enough to
28 accommodate three to five aquaculture operations, and we're
29 talking about very small spaces in the ocean, relatively
30 speaking, and, again, this is not a regulatory process. We
31 aren't doing anything permitting-wise here, and we are just
32 going through the planning and talking to stakeholders and the
33 councils and commissions, et cetera, to get initial feedback on
34 where may be good areas to look for for AOAs, and also areas
35 that we may want to avoid.

36
37 Again, those authorization and permitting requirements would be
38 the same within AOAs as they would be in any other body of water
39 outside of AOAs.

40
41 The identification of AOAs would not prohibit other legal
42 activities, and we are not excluding any other activities in
43 AOAs, but we're simply trying to identify suitable areas for
44 aquaculture in these particular regions, and we are not -- The
45 AOA is not related to any specific permit application, and we
46 don't have any projects in mind going through this, and we're
47 really just looking at the best environmental data, as well as
48 economic data, and stakeholder input for these areas, to find

1 areas that may be the most compatible for AOAs.

2
3 Now I'm going to hand it over to Ken, and Ken is going to go
4 through a couple of slides here to talk about the spatial
5 planning process that he has been leading for NOS for here in
6 the Gulf of Mexico, and Ken is our point person at the National
7 Ocean Service as we go through this process, and I will pick it
8 back up at the end, to go through some specific questions that
9 are in the current request for information that is out for
10 public comment through December 22, and so, Ken.

11
12 **DR. KEN RILEY:** That sound great. Hi, everybody. I'm Ken
13 Riley, and I work with the National Ocean Service, the National
14 Center for Coastal Science, and with the Aquaculture Program
15 with the Ocean Service. It's our pleasure to work on the
16 identification and spatial planning for aquaculture opportunity
17 areas, and we look forward to coming to every council meeting
18 and giving an update with the progress with the spatial planning
19 for AOAs.

20
21 In today's slides, you will see literally updated slides that
22 are different from the last presentation that have some
23 preliminary results from our AOA analysis.

24
25 Our program focuses on environmental research, spatial planning,
26 and siting research and tool development for sustainable
27 aquaculture development. Over the past decade, we've built just
28 an incredible team in our program that focuses and supports
29 these kinds of research initiatives. We're all scientists, and
30 we all come from -- Our team comes from a diverse background,
31 and we're a blended workforce of federal full-time employees, as
32 well as a contractor research scientist, and we have scientists
33 that come to us from the aquaculture industry, and we have
34 ecologists and oceanographers and engineers from all that -- We
35 are well positioned and well equipped to conduct the spatial
36 analysis for aquaculture planning.

37
38 What I would like to add is that, while this is our team within
39 the Ocean Service focusing on this effort, we are working and
40 integrated with the AOA Implementation Team with National Marine
41 Fisheries Service and the Regional Aquaculture Planning Team to
42 execute this work, and so it's a major effort underway.

43
44 Our work at the National Ocean Service focuses on planning and
45 siting, specifically planning at regional scales and siting and
46 precision siting for specific farm placement for a variety of
47 aquaculture formats, including algae and seaweeds and shellfish
48 and marine finfish.

1
2 An example is this aquaculture opportunity area analysis, and
3 we're also working with state agencies, and, when requested, we
4 can come into states and help with spatial planning and siting
5 of state-designated aquaculture use areas, or aquaculture zones,
6 or help states with their implementation of aquaculture, to
7 ensure that aquaculture is developed in a sustainable way.

8
9 At the Ocean Service, we have a very special relationship with
10 our ports and harbors, and, increasingly, we're seeing ports and
11 harbors integrate aquaculture with all the other types of ocean
12 commerce and economic development that occurs in ports and
13 harbors. In some ways, this is supporting traditional working
14 waterfront traditional fishing and fishery activities that are
15 occurring in these ports and harbors, and there are many ways of
16 ensuring that fisheries and seafood are maintained as an
17 important part of our ports and harbors and working waterfronts
18 across the United States.

19
20 We have dozens of projects around the U.S. The map to the right
21 on this slide shows just a sample of where some of the
22 development is occurring in the offshore environment, and I will
23 note that aquaculture, in the form of shellfish aquaculture, is
24 expanding in all of our coastal estuary systems.

25
26 A major focus of our work is to provide coastal manager support,
27 specifically providing the science to help coastal managers make
28 timely decisions about aquaculture. We do this in a variety of
29 ways, in spatial planning and environmental modeling, looking at
30 the impact and interactions of aquaculture with the environment,
31 and we give a lot of science advice and use our professional
32 experience and experience in aquaculture and in ecosystem
33 science to help communities and coastal managers decide where
34 aquaculture is right, at the right place and the right time.

35
36 A lot of people believe that we work for the industry, or we're
37 supporting science for the industry, and, while we do, to some
38 extent, support the industry, we always work at the request of a
39 state or federal agency.

40
41 Specifically, we come to a project at the request of the Army
42 Corps of Engineers or at the request of a Regional Office with
43 the Environmental Protection Agency, and we work to support
44 their management decision, and then the Army Corps or EPA will
45 ask us to work with an applicant in helping them find the right
46 space for their aquaculture project.

47
48 In the Gulf of Mexico, we also work extensively with BOEM and

1 the Department of Defense, because of the offshore oil and gas
2 industry, as well as defense activities are very prominent in
3 the Gulf region.

4
5 A major focus of our work is to always put the science in the
6 hands of the decision makers, and so we provide a lot of tools
7 and technology, especially web mapping applications. Last year,
8 we released Ocean Reports, and we've been supporting the
9 development of a national aquaculture mapper and a Gulf
10 aquaculture mapper for about five years now.

11
12 These tools are mapping applications that allow people to
13 explore the coastal ocean and to begin to think about any kind
14 of project that they might be developing, but, a lot of times,
15 it has an aquaculture focus, and it seems to be a conversation
16 starter, and so, when an applicant is interested in speaking
17 with a state or federal agency about an area that they are
18 interested in potentially developing for aquaculture, they're at
19 a much farther along advanced point in the conversation, in the
20 fact that they've explored that space and understand some of the
21 natural resources that occur in the space. They are aware of
22 the industry or other competing interests for that space, and it
23 helps them in those initial conversations. If you're
24 interested, you can simply Google "ocean reports", or you can
25 Google "national aqua mapper", and those come up readily.

26
27 Over the past five years, we've been working to build our
28 aquaculture data catalog, and this is a large data catalog of
29 GIS data, or spatial data, and a lot of it has a spatial and
30 temporal component to it, and it has over thirty-three million
31 data layers, and a significant portion of it is original
32 oceanographic data that can help us pick the right sites based
33 on the oceanography and the ecology and the bathymetry of our
34 coastal oceans.

35
36 The aquaculture data catalog extends throughout the U.S. EEZ,
37 and, like big companies like Walmart and Amazon and
38 pharmaceutical companies and how they are strategically placing
39 their businesses around the nation, using the power of GIS and
40 big data, we too are bringing that to the blue economy and to
41 support aquaculture development.

42
43 What I am presenting here is essentially our spatial planning
44 workflow for the development of aquaculture opportunity areas.
45 The boxes in red indicate the steps that we have completed, and
46 so I will go through those, and the boxes in black are yet to be
47 completed, and so we have been listening to stakeholders from
48 industry as to what are their requirements for aquaculture

1 development in the coastal ocean.
2
3 We have identified study areas in southern California and the
4 Gulf of Mexico, and we have pooled our data and screened our
5 data that we have collected in our aquaculture data catalog, and
6 we've also gathered new and original data from conversations
7 with stakeholders and the industry, as well as those partners
8 across our federal agencies, and we're still actually waiting
9 for some new data that is coming in that has come out and has
10 been identified as a result of our stakeholder engagement.
11
12 The data have been divided up as to whether it's to be used in a
13 suitability model or whether it be used to characterize a space,
14 to help us better understand an area that we've identified as a
15 potential aquaculture opportunity area.
16
17 We built that preliminary suitability model, and we've begun
18 some cluster analysis from the results of that suitability model
19 to begin to look at the small spaces of ocean that might be
20 suitable for aquaculture development. We're going to be
21 developing a precision siting model to identify discrete areas
22 within the cluster analysis, and then we're going to
23 characterize those areas and publish an aquaculture atlas for
24 the Gulf of Mexico and a separate aquaculture atlas for southern
25 California, and those will be published as a peer-reviewed NOAA
26 tech memo.
27
28 What I would like to share with you is kind of like the basis
29 and example of what a suitability model is, and so a suitability
30 model is a model that weights locations relative to each other
31 based on given criteria. Suitability models aid in finding a
32 favorable location for a new facility, or maybe habitat for a
33 species of fish or another type of animal, and, basically, it's
34 just a relative weighting of data that you have that would
35 suggest whether or not the area interacts favorably or
36 unfavorably with a resource.
37
38 On the left side of your screen, you will see some examples of
39 different types of data. These data, and the example on the
40 right, are from the siting analysis for a kelp, or algae, farm
41 off of southern California, off of Santa Barbara, California, to
42 be exact, and some examples of the different scoring that we
43 have for the suitability model.
44
45 For instance, we know that we have rules about aquaculture
46 interactions with hardbottom habitat and coral reefs, and so we
47 would score that as a zero. Marine protected areas,
48 sanctuaries, areas like that that would require detailed review

1 and consultation and consideration, would be scored as a 0.5.
2 Then areas that would be supportive of aquaculture and would
3 present opportunities for aquaculture would be scored as a one,
4 and so those are just some examples there of scoring.

5
6 On the right, this is an example of scoring output. On the
7 right, if you look at the legend, you will see the suitability
8 scores, and, rather than looking at the score, just note that
9 the scores run from zero to one. For zero, it would be not
10 suitable for aquaculture development, and one would suggest that
11 it could be suitable for aquaculture development, and then you
12 will see some things that -- Like, off of southern California,
13 like the submarine cables, or the oil and gas industry, and so
14 that's not really compatible with the type of aquaculture that
15 we're looking at for, in this instance, a kelp farm.

16
17 The study areas that we have identified for the Gulf of Mexico
18 are federal waters, and then, based on the information that we
19 gathered from industry, industry suggested that, for maximum
20 survivability of storms that frequent the Gulf of Mexico, it's
21 recommended that we have our study area from fifty meters to 150
22 meters depth, but they didn't ask for a distance-from-shore
23 constraint. Rather, they wanted the distance-from-shore
24 considerations to be used in the specific precision siting
25 analysis, which I will explain in just a bit.

26
27 Then the study areas ran the entire length, or the entire area,
28 of the Gulf of Mexico for those depths, and, because it's such a
29 large study area, we broke it up into ecoregions, and so we used
30 these ecoregions to identify kind of sub-regions of the Gulf of
31 Mexico and so we have the western region, central, the eastern,
32 and the southeastern.

33
34 I am going to present some results here for you in just a
35 second, and then, for the remainder part of the presentation, I
36 will use a few slides from the central Gulf of Mexico, just to
37 help you understand some of the suitability modeling and the
38 interactions with natural resources and the fishing industry.

39
40 This is the results of our data that have been identified for
41 use in the AOA analysis, and so we have a total of about 200
42 data layers. About half of them have been used in suitability
43 modeling, and the other half, or about a hundred data layers,
44 will be used in the characterization of that space. Together,
45 these data, whether used in the model or the characterization,
46 will then be made available and will be used throughout the
47 programmatic environmental impact statement that follows for the
48 following two years.

1
2 What you will note is that we have a lot of data that's
3 collected from the Department of Defense and national security
4 interests, and that's the largest of our data holdings, and we
5 have a lot of natural resource data, and then industry and
6 navigation and transportation and then commercial fishing and
7 aquaculture.

8
9 These are some preliminary results of our suitability modeling.
10 If we walk around the slide, on the top-left is the western
11 region, the top-right is the central region, and the bottom-left
12 is the eastern region, and the bottom-right is the southeastern
13 region. What you will note is that we did not find any
14 opportunity for aquaculture opportunity areas to be developed in
15 the southeastern region, and what you see in the top two figures
16 on the screen is the western region and the central region. You
17 can see the heavy presence of fishing interests, and the oil and
18 gas industry is really weighting down some of those areas for
19 consideration.

20
21 As we move forward, the areas that we would be looking to
22 identify for potential aquaculture opportunity areas would be
23 those areas that are only the highest-scored areas that could
24 support 500 acres to 2,000 acres for identification and
25 delineation of a potential aquaculture opportunity area.

26
27 On the eastern region, I will just note that a lot of that
28 conflicting area is a result of Department of Defense activities
29 with the Air Force, as well as the Navy.

30
31 What I'm going to do is just show you a sample sub-model so that
32 you can see how natural resources are considered in the sub-
33 model. Now, this is just the sub-model. When it's added into
34 the industry sub-model, or it's added into the national
35 security, Department of Defense, or when the four sub-models are
36 added together, the scores that you get on the relative
37 suitability analysis change. They are certainly influenced by
38 the other sub-model data layers, but this is just an example of
39 how the central Gulf of Mexico's sub-model for natural resources
40 is scored.

41
42 What you will see is the entire area is affected by the manta
43 ray core distribution area, and it's covered -- That core
44 distribution area for manta rays covers the area 100 percent,
45 and then we have conservation measures for Bryde's whale, and
46 then we have a significant number of conservation measures for
47 coral and fish havens and artificial reefs, and so, for those of
48 you that perhaps are not aware, a fish haven is the permitted

1 boundaries for an artificial reef, where an artificial reef is
2 actually the physical structure, and so, for both of those, we
3 have rules that say that -- The Army Corps has rules about
4 developing adjacent to those artificial reef fish haven
5 structures.

6
7 On the right, you can see this map of how some of those
8 different data layers are in the model and then how they result
9 in the resulting scores for the model.

10
11 Then this is the fishing and aquaculture sub-model, and what I
12 would like to say is that you can see the great extent of shrimp
13 trawling from the shrimp trawling electronic logbook data that
14 we have from 2004 to 2019, and you can see how that really
15 weights into the model, and we have reef fish fishing, longline
16 reef fish data, Southeast Region Headboat Survey, menhaden catch
17 records, highly migratory species longline, and we tried to
18 provide an annotated map there, to show you how some of those
19 fishing constraints are used in weighting that model.

20
21 Our next steps are to take these relative suitability scores,
22 but we are waiting on just a couple of datasets. We just got a
23 brand-new sea turtle dataset for including conservation measures
24 for sea turtles that we did not have, and we'll be including
25 that and updating the sub-model for natural resources for
26 conservation measures for sea turtles, and then we'll be
27 updating the relative suitability scores.

28
29 Then we use a statistical process called cluster analysis, and
30 we identify the highest clusters of cells, those cells that are
31 greater than 500 acres and less than 2,000 acres. Then, after
32 we have those highest-identified area, we then conduct another
33 model called a precision siting model, and so within those
34 clusters are the highest suitability scores.

35
36 We're then going to run another model, an additional model, to
37 actually find the area where aquaculture -- Where potential
38 aquaculture opportunity areas could be located. In that, we'll
39 look at ocean currents and wave climates, and we'll look at
40 weather and meteorology and storm history. We'll look at
41 distance to shore and distance from working waterfronts and
42 docks.

43
44 Then we also, as a result of some of our stakeholder engagement
45 and stakeholder input, we have a sub-model in there that is
46 going to look at how can we site aquaculture away from vessel
47 traffic and vessel transit, as well as from fishing activities,
48 and so to ensure that the areas we picked absolutely minimize

1 interactions with commercial fishing and recreational fishing
2 interests, as well as some aquaculture interests as well for
3 permitted aquaculture areas.

4
5 Then our final steps are to characterize the alternative
6 locations, and so we have essentially drawn some boundaries in
7 areas between 500 and 2,000 acres, and we're going to identify
8 two to three potential aquaculture opportunity areas or
9 alternatives per study area, and then we're going to
10 characterize those, and so the characterization will include
11 information on the bathymetry and the soil and the waves and the
12 oceanography of that space, as well as vessel traffic
13 interactions and things like that, and all those characteristics
14 will go into identifying the different alternatives that will be
15 put forward for the programmatic environmental impact statement.

16
17 Our final step is to actually write the atlas and develop the
18 maps for the atlas and then put the atlas through a peer-review
19 process with NOAA, the interagency working group, as well as
20 peer review, and so, on this slide, you can see all of the
21 additional steps that are required. Right now, we already are
22 working on, based on those preliminary results, the DOD mission
23 compatibility assessment, because of the military interests in
24 the eastern Gulf of Mexico.

25
26 With that, I will say thanks. My contact information is there,
27 and I appreciate all of the opportunities to present to the
28 council, and we'll continue to provide updates with each council
29 meeting and give you continual feedback and updates, and I will
30 turn it back over to Jess. Thank you.

31
32 **DR. BECK-STIMPERT:** Thanks, Ken. Just to remind folks, we have
33 a current request for information that's out in the Federal
34 Register, and that comment period ends on December 22, and we
35 have questions at the end of that request for information that
36 are very specific to identification of these first two AOAs in
37 federal waters of the Gulf of Mexico and southern California.

38
39 We're really looking for feedback on those specific questions as
40 well as questions to inform the locations for future AOAs
41 nationally, and so we're asking folks, in their comments,
42 whether it be during the listening session or in written
43 comments, to focus on giving us some of that information that
44 we're searching for.

45
46 Here is where you can find the RFI, searching for the NOAA-NMFS
47 locator that you can see there, and we've already had, as I
48 mentioned, two national listening sessions, and we had a

1 regional listening session in California and one in the Gulf,
2 just a few weeks ago.

3
4 We just scheduled, recently scheduled, a fifth listening session
5 on December 3 from 12:00 to 2:00 p.m. Eastern Time, and so any
6 folks that have not been able to take advantage of the public
7 comment through the listening session can do so on December 3,
8 and the information for that listening session can be found by
9 Googling "aquaculture opportunity areas fifth listening
10 session".

11
12 This is a Verizon-supported platform that we're using, and we
13 don't have a number until we are just about to begin, because
14 that's just the way that they work, and so I would say that
15 folks just Google the terms there, and, in the first one or two
16 links, it will show up, a link to that particular listening
17 session on December 3. When the time comes, around 12:00 p.m.
18 on the 3rd, you can just click that link, and you will fill in a
19 little bit of information, and it will take you directly to that
20 listening session, and so that's how that will work.

21
22 As Ken mentioned, there are specific areas in both federal
23 waters of the Gulf of Mexico and southern California that we're
24 looking at. In the Gulf of Mexico, we're looking at areas that
25 are within depth ranges between fifty to 150 meters, and we
26 don't have a specified maximum distance from shore.

27
28 In southern California, we're looking at areas that are within a
29 depth range of ten to 150 meters and a maximum distance of
30 twenty-five nautical miles from shore has been identified,
31 through industry and other stakeholders, as areas that they
32 would most likely want to site any sort of operation.

33
34 Some of the questions we're asking, specifically in the Gulf of
35 Mexico and southern California in federal waters, are, are there
36 any types of aquaculture that these areas may or may not
37 support? Are there other water depths and maximum distances
38 from shore that should be considered, and why? This is the
39 information that we're getting so far that has led us to these
40 parameters, and we would like to hear from the public, from
41 stakeholders, from the industry, whether or not we should be
42 looking at other areas for the Gulf of Mexico or southern
43 California.

44
45 Here are some other questions we're looking at for other
46 specific locations or habitats within federal waters of the Gulf
47 or southern California that should be considered. Are there
48 specific locations that should be avoided? Are there areas

1 where the presence of aquaculture may overlap with areas that
2 are utilized by protected species, such as large whales, sea
3 turtles, dolphins, et cetera? Are there areas that we should
4 avoid because of concerns about harmful algal blooms or any
5 impaired water quality? Is there ongoing environmental,
6 economic, or social science research that would assist us in
7 identifying and implementing AOAs in federal waters of the Gulf
8 or southern California?

9
10 I think this may be the last slide for regional questions, but
11 is there any information that may be useful for AOA planning
12 processes in federal waters of the Gulf or southern California
13 that includes spatial data or GIS layers representing
14 environmental and socioeconomic considerations for -- There are
15 several options here of biophysical and oceanographic
16 conditions, natural resources, any sort of social or cultural
17 resources considerations that we should take into account,
18 government boundaries, industry information, and we've already
19 been in contact with some major sectors of the fishing industry
20 in the Gulf of Mexico, as well as folks from the aquaculture
21 sector. We've talked to folks from the military as well for any
22 information related to navigation, and so any information that
23 the public has that may be relevant to this process that falls
24 within these parameters would be very helpful.

25
26 We're also, as I mentioned, looking at regions for future AOAs,
27 and, as you can see, we've got a lot of space that we can look
28 at here, and so we're looking, for the next four years, at
29 alternate areas around the U.S. that may be conducive for
30 aquaculture and that we would like to explore further for
31 aquaculture opportunity areas.

32
33 **CHAIRMAN DIAZ:** Dr. Beck-Stimpert, I'm going to ask you if you
34 could kind of wrap it up. We have some time constraints, and we
35 do need to wrap this particular agenda up in a little while.

36
37 **DR. BECK-STIMPERT:** Absolutely. I will do that just very
38 quickly. There are additional questions in the RFI that pertain
39 to future AOAs, and so I'm not going to list those here, but you
40 can look at the RFI, at the end, and look at those questions.
41 The same here, and this pertains to looking at AOAs in the
42 future, over years two to five.

43
44 What's next, again, the public comment period for the RFI ends
45 on December 22, and we have the fifth listening session on the
46 3rd, from 12:00 to 2:00 p.m. Just Google the terms that you see
47 there, and the RFI also has information on how you can provide
48 written comments to regulations.gov, and you can even go to

1 regulations.gov and just Google "aquaculture opportunity areas",
2 and it will pull up that request for information quickly. If
3 that's it, then thank you all for your time, and Ken and I can
4 answer any questions, if there is time. Thank you.

5
6 **CHAIRMAN DIAZ:** Thank you, Dr. Beck-Stimpert and Dr. Riley. We
7 appreciate your presentation. I am going to ask that staff -- I
8 think it might be Dr. Freeman, but if you would go over the AP
9 motions that are relevant to the aquaculture opportunity zones,
10 and they took some time to discuss this, and I would like to
11 make sure that the committee gets to hear their motions from the
12 AP. Then we'll take questions from the committee.

13
14 **DR. MATT FREEMAN:** At the November 16 Shrimp AP meeting, the
15 agenda was modified to allow the AP members to discuss, under
16 Other Business, the aquaculture opportunity areas, and so the AP
17 noted that the Gulf shrimp industry is a major stakeholder in
18 this initiative, and the offshore aquaculture siting decisions
19 must be based on thorough evaluation of the potential impacts on
20 traditional shrimp fishing activities in the affected areas.

21
22 They made a motion, which is up on the screen, and I will read
23 through it, that the Shrimp AP requests the council to engage
24 the Shrimp AP in the NOAA aquaculture opportunity area
25 initiative, to the maximum extent practicable and utilize all
26 available shrimp fishing effort data, including all tow points,
27 in its own evaluations of proposed aquaculture opportunity
28 areas, for the purpose of minimizing any impacts on the shrimp
29 fishery and to provide such input to NOAA. That motion carried
30 unanimously.

31
32 **CHAIRMAN DIAZ:** Thank you, Dr. Freeman. Any questions from the
33 committee? Ms. Bosarge.

34
35 **MS. LEANN BOSARGE:** Thanks, Matt and Chairman Diaz, for bringing
36 that motion up on the board from the Shrimp AP. As you know,
37 the shrimp industry is not only one of the most valuable
38 fisheries in the Gulf of Mexico, but it's almost always in the
39 top five in the United States, and so in our country. I think
40 sometimes that goes unnoticed, because we're a quiet industry,
41 and we don't talk a lot, and we're not out there in front of
42 people all that much.

43
44 I wanted to commend Mr. Riley, and I thoroughly enjoyed your
45 presentation, and I really like working with you. You are a
46 very straight shooter, and I ask you a question, and I always
47 get a direct answer, and I think you've worked hard to try and
48 include as much data as possible in your models and your

1 simulations.

2
3 Having said that, I was a little hesitant. At the last council
4 meeting, or the council meeting before, I mentioned that, as you
5 all start parsing through your data, that it's going to be very
6 important that you touch base with the council and make sure
7 that, number one, all the data is there, which I think you've
8 done a good job of that, but, number two, just understand what
9 that data means, because, really, sometimes an explanation can
10 go a long way in understanding what's there.

11
12 I haven't seen that yet, and I think you touched on it a little
13 in your presentation, Mr. Riley, and I think, if you really want
14 to garner feedback from the council, which you're not going to
15 get by December 22, we need a presentation from you all that
16 actually shows us the data for the reef fish VMS, for the reef
17 fish fishery, and for the shrimp fishery and any other
18 federally-managed fishery that you are putting into the model.
19 We need to see it overlaid on the map, and then we need to see
20 how your model is utilizing that.

21
22 The other thing that is of vital importance is that scoring, and
23 so we need to see how you're scoring the reef fish fishery and
24 the shrimp fishery. You can have all the data you want in the
25 model, but, if you tell -- If you score it a one, which means
26 you're telling the model, hey, don't worry about that shrimp
27 data, and that's still suitable area for aquaculture opportunity
28 areas, then the data almost becomes irrelevant, and I don't
29 think you're doing that, but I think that's stuff that needs to
30 be transparent, and that's how you're going to garner feedback
31 from fishermen at the council level, and I really hope to see
32 that and a whole lot less of the kind of broad language
33 presentation, the first presentation.

34
35 We know what the timeline is, and we know what the Executive
36 Order says, and it's time to get down the nuts-and-bolts of
37 this, and we are very limited on time here, and so we need to
38 bypass that and get down to the meat of the matter, but thank
39 you again, and I look forward to working with you, and maybe I
40 will have another comment in a minute.

41
42 **CHAIRMAN DIAZ:** Thank you, Ms. Bosarge. I would just like to
43 echo that, and I agree with most of what Leann just said, and I
44 do agree with the Shrimp AP's request to be engaged in this
45 aquaculture opportunity initiative, to the maximum extent
46 practical.

47
48 With that, I have a question for Dr. Riley, and it's kind of off

1 of what Leann said, but she didn't directly ask this. Is the
2 fishing effort data actually in your data catalogs and your
3 suitability layers, Dr. Riley?

4
5 **DR. RILEY:** It is. It certainly is, and the way it's scored now
6 is it's scored -- To give you an example, our grid cells are
7 ten-acre grid cells, and we have some grid cells that have as
8 much as 300 shrimp trawls through those grid cells.

9
10 Those are scored right at zero, and then we use a polynomial
11 regression, essentially, and go up to one, and then, as I
12 mentioned in the previous discussion, we then -- We have
13 essentially all of the electronic logbook data for 2004 to
14 present, and then what we're doing is we decided that we want to
15 show every effort to minimize the interaction of one of these
16 AOAs with shrimp trawling.

17
18 The fact that a shrimp trawler, or any other vessel, would have
19 to navigate around an AOA is an inconvenience, and it affects
20 their economy, and so we want to kind of deconflict areas that
21 would have any interactions with the shrimp industry or any
22 other commercial fishing sector, and so we're really looking for
23 areas of the ocean that have minimal vessel traffic of any kind,
24 and especially with the shrimp trawls, and we would be pleased
25 to present with the AP panel at any moment. We're working very
26 closely with the shrimp program, out of the NMFS Galveston Lab,
27 and we want to make sure that we're using those data and using
28 it as needed.

29
30 **CHAIRMAN DIAZ:** Thank you, Dr. Riley. I think we would probably
31 welcome that participation, and so thank you for offering that.
32 I've got one more question, and this might be for Dr. Beck-
33 Stimpert. In your presentation, it was stated a couple of times
34 that identification of AOAs would not prohibit other legal
35 activities, and so it specifically says "identification", and so
36 I understand that, just because we identify one, that nothing is
37 going to change, as far as other legal activities at that point,
38 but, when we implement one -- If we implement an AOA, and, just
39 say, for saying sake, it's 200 acres, and it has one occupant on
40 a portion of that, is the other areas of that AOA -- Will it
41 still be able to be utilized by other fisheries, other legal
42 fisheries, at that point?

43
44 **DR. BECK-STIMPERT:** If I understand what you're saying, if we
45 identify an area that is say a thousand acres, and someone comes
46 forth and says I want this 200 acres for aquaculture, that other
47 activities would still be able to commence on the rest of the
48 property, until somebody else steps up, and is that the

1 question?

2

3 **CHAIRMAN DIAZ:** Yes, ma'am.

4

5 **DR. BECK-STIMPERT:** Essentially, we're not blocking off areas of
6 the ocean, and we're simply finding areas that may be more
7 suitable for aquaculture. I think folks should also note too
8 that, once we identify AOAs at the end of each three-year
9 process, there's still a lot that needs to be done by the
10 applicant.

11

12 Applicants often have to do surveys of the bottom, and they
13 would still be encouraged to talk to the councils and
14 commissions and such, just to ensure that they meet with
15 stakeholders and get feedback, and we're doing a lot of this
16 right now, and, as you all remember too, there have been several
17 applicants that have come up to the council in the past few
18 years that have talked about areas that have been within
19 shrimping grounds, or have been within proximity to fishing
20 grounds or habitats and such, and we've been able to sort of
21 deconflict those areas, by sort of a negotiation with various
22 industries and fishing interests.

23

24 We are not looking to take lots of ocean away from other uses,
25 and we're simply saying that any other uses that could be
26 compatible -- Say there are two farms that spaced -- This is the
27 part with which fishing and trawling and such would still be
28 compatible uses, or they very well could be, and we aren't the
29 permitting agency, and there may be other considerations by the
30 Army Corps and such that would say, look, we don't want this to
31 happen within a certain area, because of gear loss and such,
32 which is understandable, but we're not saying that these other
33 uses cannot happen in those areas.

34

35 We're simply saying that these are the areas that show that we
36 think that they would be good areas, based on what we know and
37 based on what the industry has told us and based on our
38 conversations with fishing interests and the councils and
39 commissions and other stakeholders that these may be the best
40 areas, because of reduced conflicts and such.

41

42 We're hoping that, through that process, we will sort of
43 deconflict those areas as well, but, just by identifying an AOA,
44 it does not mean that other activities cannot happen, and, of
45 course, it makes sense that some activities may or should not
46 occur within a certain area, of anchors and things of that
47 nature, just because there could be gear losses and entanglement
48 and things of that nature with other fishing gears, but it's

1 certainly not our -- It's not within our purview, and it's not
2 something that we're trying to do in terms of reduce the use of
3 an area. We're just trying to find the most compatible area and
4 hoping that that compatibility will extend to other legal uses
5 of that area as well. Does that help?
6

7 **CHAIRMAN DIAZ:** Yes, ma'am. Thank you, Dr. Beck-Stimpert. I
8 appreciate that. Any other questions from the committee? Ms.
9 Bosarge.

10
11 **MS. BOSARGE:** I just wanted to also say that I hope we will be
12 able to get this in front of the Shrimp AP, and I hope that Mr.
13 Riley will be able to present some of that data to them, and I
14 think he does a great job, and I think he's pretty salty, and
15 they will relate to him quite well, and I think, if he could
16 really drill down into some of those areas that they're thinking
17 are prime and show us the shrimp trawl data overlaid with those
18 areas, and let's get down into the nitty-gritty of it when you
19 present, and I think, the more transparency you present to the
20 fishing industry, the more buy-in you're going to have, because
21 it does sound like you all are really going about this the right
22 way, and so thanks for continuing to put up with us.
23

24 **CHAIRMAN DIAZ:** Okay. I am not seeing any other hands, and so
25 we're going to go ahead and move on at this point. Dr. Diagne,
26 would you go through the action guide and next steps for final
27 action on Reef Fish Amendment 48 and Red Drum 5, please?
28

29 **FINAL ACTION ON REEF FISH 48/RED DRUM 5: STATUS DETERMINATION**
30 **CRITERIA AND OPTIMUM YIELD FOR REEF FISH AND RED DRUM**
31

32 **DR. DIAGNE:** Yes, Mr. Chair. For this agenda item, as
33 mentioned, it is a final action item, and the committee will
34 review the preferred alternatives that were already selected for
35 each of the actions in this amendment, and, also, review a
36 summary of the public comments that we received at the November
37 17 public hearing.
38

39 Following that, the committee may discuss the public input, and,
40 if the committee agrees, then it would recommend that the
41 council take final action and submit the proposed regulations to
42 the Secretary of Commerce for implementation. Thank you.
43

44 **CHAIRMAN DIAZ:** Thank you, Dr. Diagne. I believe we're
45 scheduled to start with the public comments first, and so, Ms.
46 Muehlstein, can you take us through the public comments, please?
47

48 **MS. EMILY MUEHLSTEIN:** I would be happy to. Good morning,

1 everyone. We had public comment that we received from written,
2 and we also held a webinar on November 17. There were fourteen
3 members of the public that attended that webinar, and a number
4 of council members were in attendance as well.

5
6 We did only receive public comment from one person during that
7 webinar, and it was from Steven Atran, who is the former council
8 staff member that was responsible for developing the document,
9 and he said that he cannot support the document as it is
10 currently written, and there are a number of unassessed stocks
11 in the document for which spawning potential ratio and fishing
12 mortality cannot currently be calculated. The alternatives in
13 the amendment currently rely on some aspect of fishing mortality
14 or spawning potential ratio, and so, while this works for
15 assessed stocks, there is no way to do that for the unassessed
16 stocks.

17
18 For the unassessed stocks, it's difficult to make a
19 determination of overfished status, and overfishing status would
20 continue to be monitored relative to the established overfishing
21 limit for those stocks.

22
23 He also stated that there are alternatives to relying on
24 spawning potential ratio and fishing mortality rates. For
25 example, you could use average catch during a five-year period
26 when there was no upward or downward trend in catches, and,
27 while he pointed out that new recreational catch calibrations
28 complicate the issue, he did suggest that the problem could be
29 resolved. Another approach would be to measure the status based
30 on the average length, versus the length that would correspond
31 to the spawning potential ratio.

32
33 Finally, he did say that, while there were a number of
34 alternative approaches to spawning potential ratio, none of them
35 are currently being considered in the amendment and that
36 National Standard 1 is being violated, since there is no
37 measurable criteria being used for the unassessed stocks.

38
39 Also, National Standard 2 is being violated, because guidance
40 from the CCC Data-Poor Working Group would suggest that the
41 approach we're using is not the best scientific information
42 available. He did suggest that, if you remove the nineteen
43 stocks that are unassessed in the document, he would support
44 moving forward with the current preferred alternative for the
45 remaining species, and he also suggested that the council remove
46 those nineteen unassessed stocks and address them in a different
47 amendment.

1 Now I will move on to the written public comment that we
2 received. First, I will go through sort of the general
3 comments, and then I will work through the action-specific
4 comments.

5
6 In that written comment, we had seventeen comments, and we heard
7 that the changes made in the document could have significant
8 impacts on anglers' access to fish and could dramatically alter
9 the rebuilding progress that has been made with key reef fish
10 stocks. We heard that we should use the utmost precaution when
11 setting maximum sustainable yield proxies, minimum stock size
12 thresholds, maximum fishing mortality thresholds, and optimum
13 yield for the Gulf's most ecologically and economically
14 important reef fish resources.

15
16 Also, we heard there is a strong likelihood that missteps in
17 management on these really important criteria might negatively
18 alter the fishery for generations.

19
20 We heard that actions in the amendment are comparable to the
21 actions in Amendment 44, which focused on MSSTs for specific
22 Gulf reef fish, which included red snapper, and, fundamentally,
23 the changes realized through Amendment 44 weakened sustainable
24 management of important, valuable, and economically-valuable
25 fish in the Gulf of Mexico, and, ultimately, they will likely
26 hurt both fish and fishermen and the region.

27
28 We heard that the alternatives that were selected in that
29 amendment by the council as preferred shunned the precautionary
30 principles and significantly undermined considerable rebuilding
31 success that has been realized for critically-important stocks.

32
33 We heard that lowering the spawning potential ratio proxy
34 typically increases the expected yield over the long term.
35 However, stocks never follow an equilibrium yield. When
36 recruitment is less than expected, conservative status
37 determination criteria can result in higher and more stable
38 catch. Furthermore, there is a chance that less yield will be
39 lost over time, long term, if a more precautionary approach to
40 setting status determination criteria is used.

41
42 When recruitment is lower than expected, or fishing was harder
43 than estimated, conservative reference points lead to both
44 higher yields and biomass. We heard that the strategy is
45 especially appropriate for stocks where there is a significant
46 amount of management uncertainty.

47
48 We also heard that, in the past, the council has only assigned

1 status determination criteria and biological reference points to
2 assessed stocks. This amendment is unique in attempting to
3 assign status determination criteria and those biological
4 reference points to a large number of unassessed stocks,
5 something that the council has not attempted since 1999.

6
7 Because fishing mortality and spawning potential ratio can only
8 be calculated in a stock assessment, this type of definition
9 cannot be used for unassessed or data-poor stocks, and, in the
10 absence of an assessment, fishing mortality and spawning
11 potential ratio are unknown, and the formula used to assign the
12 status determination criteria is unmeasurable. Consequently,
13 the status determination criteria based on the formula used in
14 the document are in violation of National Standard Guidelines,
15 which state that status determination criteria must be
16 measurable and objective.

17
18 Now I will move on to the action-specific comments that we
19 received through written comment, and first is a comment that we
20 received on Action 1, which looks at maximum sustainable yield.
21 We heard strong recommendation that the council heed the advice
22 of its Scientific and Statistical Committee with respect to red
23 snapper maximum sustainable yield proxies.

24
25 The Scientific and Statistical Committee has recommended that
26 the MSY proxy for red snapper be set at the yield corresponding
27 with fishing at 30 percent of spawning potential ratio.
28 However, it recognizes that F 26 percent SPR is very close to
29 the recommended level. The SSC has concluded that there is
30 insignificant biological evidence for a better MSY proxy than
31 what is currently used by the council.

32
33 On Action 1, we also heard that the issue of groupers and other
34 snapper stocks -- A recommendation that the council follows the
35 guidance in the Harford et al. paper from 2017. It urges a 40
36 percent SPR for groupers and a 30 percent SPR for other
37 snappers. This guidance provides the greatest probability of
38 achieving maximum sustainable yield on a long-term basis for
39 various stocks.

40
41 Moving to Action 2, we heard some comment on the maximum fishing
42 mortality threshold. We heard that we should create a new, more
43 conservative Alternative 5 that would read as follows: The MSST
44 would be set equal to one minus mortality times the BMSY or
45 proxy or 85 percent of the BMSY or proxy, whichever provides a
46 larger buffer between the MSST and the BMSY.

47
48 This alternative would account for natural fluctuations by

1 including the natural mortality, providing a modest additional
2 buffer between MSY and MSST for most reef fish stocks, while
3 allowing exceptions for high natural mortality, where 85 percent
4 might be too restrictive.

5
6 Next, we'll move on to Action 3. We heard comment on this
7 minimum stock size threshold, and we heard that Amendment 48
8 notes that the MSST needs to be set far enough away from the MSY
9 to allow for natural fluctuations in stock biomass, but not so
10 far as to run the risk of recruitment collapse.

11
12 A precautionary approach would be to set the MSST as close to
13 the MSY as possible, while taking into account natural
14 fluctuations in stock biomass. This would give managers the
15 ability to react quickly with respect to putting rebuilding
16 plans into action, and it also has the benefit of generating
17 more consistent and predictable annual catch limits season after
18 season.

19
20 Finally, on Action 4, which deals with optimum yield, we heard
21 that, given the interactions between all of the status
22 determination criteria components, including optimum yield,
23 careful analysis is needed to determine how these actions will
24 impact catch levels for a given set of status determination
25 criteria options relative to the status quo, and especially with
26 respect to stocks that are currently in a rebuilding plan, such
27 as red snapper and greater amberjack.

28
29 The council should request that the SSC examine these actions
30 and consider the development of a decision tool to determine how
31 anglers will be impacted, particularly for rebuilding stocks,
32 and that concludes my summary of the public comment we received.

33
34 **CHAIRMAN DIAZ:** Thank you, Ms. Muehlstein. Any questions for
35 Ms. Muehlstein? Seeing none, Dr. Froeschke, are you ready to
36 take over?

37
38 **DR. JOHN FROESCHKE:** Yes, I am. It looks like you do have a
39 hand.

40
41 **CHAIRMAN DIAZ:** Okay. Ms. Bosarge.

42
43 **MS. BOSARGE:** Thanks. I didn't mean to put it up, but, since
44 it's up, and I was going to wait until later, and so the
45 comments -- We can address it now, I guess, and so the comments
46 from Mr. Atran -- This is a pretty technical document, and so I
47 would rather just -- Instead of me trying to speak to those
48 comments, I guess I would ask that maybe if Clay could kind of

1 wade through some of those and give us his input and feedback on
2 if he thinks we're headed in the right direction, or maybe it is
3 warranted to take those I think nineteen stocks and put them in
4 a different document and give them some more thought. I hate to
5 put you on the spot there, Clay.

6
7 **DR. FROESCHKE:** Mr. Chair, and not to interrupt, but I was
8 planning to kind of give some background from the SSC and
9 previous council deliberations when I review the actions, and so
10 perhaps, if Dr. Porch wants to fill in after that, that might be
11 a better time, but I could at least give you the background of
12 the discussions that we've had to-date.

13
14 **CHAIRMAN DIAZ:** Is that okay with you, Ms. Bosarge?

15
16 **MS. BOSARGE:** Yes, sir. Like I said, I didn't mean to have my
17 hand up that quick anyway.

18
19 **CHAIRMAN DIAZ:** That's fine. Proceed, Dr. Froeschke.

20
21 **DR. FROESCHKE:** Okay. Thanks. My plans is to go through and
22 review the actions and the preferred alternatives for the four
23 actions in the document and try to provide some background
24 information about previous recommendations from both the council
25 and the SSCs on the action.

26
27 As many of you probably recall, this is a document that's been
28 in development for a number of years, and so I would like to
29 start on Action 1, the maximum sustainable yield, as the bulk of
30 the public comment focused on this action, and, in particular,
31 the portions about the MSYs and the preferred options.

32
33 The preferred options, the way the document is set up, is we
34 have four preferred alternatives, and the Preferred Alternative
35 2 is based on an SPR proxy, which is the yield when fishing at
36 30 percent spawning potential ratio, and this is for the stocks
37 and stock complexes that do not currently have an MSY proxy, of
38 which there is several.

39
40 Preferred Alternative 3 addresses goliath grouper only, and the
41 biology of this species is different, and the SSC and the
42 council, based on our history of management, felt that a more
43 conservative SPR was appropriate for this, and so, previously,
44 the council selected Preferred Option 3, which would set the
45 yield at 40 percent spawning potential ratio.

46
47 Preferred Alternative 4 addresses red drum, and this fishery is
48 managed quite differently from other reef fish, and harvest is

1 prohibited in federal waters, and has been for a long time, and
2 there is a state-water fishery that is extensive in each state,
3 and the -- Rather than based on an SPR ratio, the state
4 management goals have been based on escapement rates, primarily
5 30 percent escapement, and, essentially, it would allow 30
6 percent of the juveniles to escape to the offshore environment,
7 as compared to what would escape if there was no fishery.

8
9 Florida has a more conservative 40 percent escapement rate, and
10 this is the -- Preferred Option 4a would base the MSY proxy on a
11 30 percent escapement rate, Gulf-wide.

12
13 Preferred Alternative 5 -- After I go through these, I will talk
14 some specifics and some history about the comments that we
15 received, but Preferred Alternative 5 would apply to all the
16 reef fish stocks and red drum, and what this would do is it
17 would allow -- Based on the results of future assessments or
18 recommendations from the SSC, it would allow the council to
19 streamline a process to update the MSY proxy, and so, for
20 example, if the SSC reviewed a stock assessment for a particular
21 reef fish stock, and they provided a different SPR proxy than
22 what is currently on the books, either from a previous amendment
23 or for something that was done as a result of this amendment,
24 the council could look at that recommendation, and, if they
25 agreed, they could implement it through a plan amendment, rather
26 than going through options and alternatives and things like
27 that. It does not require the council to accept the
28 recommendation, but it does give them the option, and so that's
29 something -- The intent of that is to streamline this process.
30 However, it does retain the council's prerogative to establish
31 the MSY.

32
33 If you scroll up, what I wanted to do now is just kind of
34 generally speak that, yes, the Preferred Alternatives 2 and 3 do
35 set MSY proxies based on SPR ratios, and this is consistent with
36 the established MSY proxies for all of our reef fish stocks that
37 we have defined, with the exception of gag, I believe.

38
39 Mr. Atran suggested some different ideas, one as using a catch
40 history to establish an MSY, and, in earlier versions of this
41 document, there were options to use catch histories and time
42 series of catch histories to establish an OFL.

43
44 The SSC did review these options a number of times and had some
45 relevant discussions. The primary concern with this approach is
46 that the SSC felt like they could give a catch level
47 recommendation that was sustainable, but not necessarily a
48 maximum sustainable yield, and that was the concern. In the

1 Caribbean, this also has come up, and they have not recommended
2 OFL levels and MSY proxies based on catch levels, and they just
3 didn't feel there was enough information to do that.

4
5 It's consistent, for example, with the recommendations that have
6 come from data-poor assessments that have more information than
7 catch only, but not as much as an age-structured assessment,
8 and, for similar reasons, we also don't establish MSY proxies,
9 and so that was the bulk of the reason.

10
11 It does -- Perhaps it's more measurable, based on what we have
12 now, but they did not -- The SSC's recommendation was that it's
13 not consistent with the maximum value, and so they didn't feel
14 comfortable with that, and so, based on that recommendation, it
15 was removed, in 2019, as an option from the document.

16
17 One of the other suggestions in there is that the technical
18 guidance -- Sub-Group 3 is producing a document that perhaps has
19 some new information, based on other information, such as the
20 average length or fishing mortality or some trip limit
21 approaches, and so the science part of this document, as far as
22 I know, is relatively complete. However, a set of policies to
23 implement this guidance has not been developed.

24
25 At the 2020 September Council Coordinating Committee meeting,
26 the CCC did request that the technical guidance be provided to
27 the councils and the SSCs for review, and, essentially, that's
28 where we're at on that approach.

29
30 It's not clear to me, based on my initial review of the
31 document, the information there, it's not clear that it would be
32 adequate to set an MSY for many of the stocks that we have now,
33 based on that information, although, again, the policy portion
34 of this has not been developed.

35
36 One thing to keep in mind is that the Preferred Alternative 5
37 would allow the councils to rather, more easily than we could
38 now, update the MSY, or MSY proxy, for any of these stocks in
39 the future, for example, if we completed the assessment.

40
41 This is what we've done more recently, for example, for gray
42 snapper. We got a completed stock assessment, and the SSC
43 reviewed different SPR proxies, based on the council request,
44 and they updated it and changed the MSY proxy from the yield at
45 SPR 30, initially, to SPR 26, which is what it is now. This
46 document would not prohibit those sorts of deliberations and
47 recommendations in the future, and so I will stop there, if
48 there's any questions on that.

1
2 **CHAIRMAN DIAZ:** All right. Any questions for Dr. Froeschke at
3 this point? All right, Dr. Froeschke. I'm not seeing any hands
4 up right now. If you would, go ahead and proceed.

5
6 **DR. FROESCHKE:** Okay. I'm going to go Action 2. Action 2
7 addresses the maximum fishing mortality threshold, and, sort of
8 as a general point, the fishing mortality and the MSY are
9 intimately coupled, and, for this reason, there is only two
10 alternatives in Action 2, and the preferred alternative is that,
11 for stocks where an MSY proxy has not been defined, the MFMT is
12 equal to the fishing mortality at the MSY proxy for each stock.

13
14 Essentially, the MFMT would be equivalent to the fishing
15 mortality associated with the MSY proxy in Action 1. This
16 really wouldn't change anything, and it would just make it
17 consistent, such that the MFMT and the MSY were consistent with
18 each other. Are there questions on that?

19
20 **CHAIRMAN DIAZ:** Any questions for Dr. Froeschke on Action 2?
21 Again, Dr. Froeschke, I'm not seeing any hands, and so if you
22 will proceed.

23
24 **DR. FROESCHKE:** Okay. Action 3 addresses the minimum stock size
25 threshold, and so, as a refresher, the MSY for a stock, that
26 comes from a stock assessment, is associated with a biomass, and
27 so there's a biomass at MSY, and BMSY is what we call that, and
28 that is the biomass that produces the maximum sustainable yield,
29 and, ideally, that's where we would keep the biomass of all of
30 our stocks, through management, or above that level.

31
32 However, for reasons either based on fishing or environmental
33 changes or other factors, it's possible that the biomass could
34 fall below the BMSY, but the MSST -- What that does is sets a
35 threshold below the biomass at MSY, which allows the stock to
36 vary somewhat, through natural variation or other factors,
37 without requiring a rebuilding plan and an overfished status,
38 and so the MSST can be as low as 0.5 of BMSY, all the way up to
39 equivalent to BMSY.

40
41 In the past, in the historical past, this was often set in a
42 formula-based approach, where, using a one minus the natural
43 mortality, M , for a given stock, and so, for example, if the
44 natural mortality was 0.2, it would be one minus 0.2, and so the
45 MSST would be 0.8 of -- It would be 80 percent of the biomass at
46 MSY.

47
48 This is Alternative 2 in the document, and we have reviewed

1 this. Sometimes this results in MSST values that are very close
2 to BMSY, if the mortality for a stock is low, and it also can
3 change it, for example if the science indicates that the
4 estimate of natural mortality changes.

5
6 This can be a little problematic, and I will skip to Alternative
7 4, which sets the MSST at 0.5, 50 percent of BMSY, and this,
8 again, is the lowest that it can be set, and this is consistent
9 with several stocks that have been done, including the stocks in
10 Reef Fish Amendment 44, and, subsequent to implementation of
11 Amendment 44 -- There have been discussions by the SSC and the
12 Science Center that suggest that a stock is unlikely to fall 50
13 percent below the biomass at MSY based on factors other than
14 fishing and that something less than that might be more
15 appropriate. The SSC has recommended an MSST of 75 percent of
16 the BMSY, or a proxy, and that's Preferred Alternative 3.

17
18 Then Preferred Alternative 5 addresses four stocks that are
19 jointly managed by the South Atlantic Council and the Gulf, the
20 goliath, mutton snapper, yellowtail, and black grouper. These
21 stocks would use the existing MSST definitions by the South
22 Atlantic, which is 75 percent of BMSY, and so consistent with
23 Preferred Alternative 3, with the exception of goliath grouper,
24 which is based on the one minus M. Are there any questions on
25 that?

26
27 **CHAIRMAN DIAZ:** Ms. Bosarge has her hand up. Ms. Bosarge.

28
29 **MS. BOSARGE:** Mr. Chairman, I think this is a really document,
30 and it applies to almost the stocks that we manage, and I feel
31 like, given the length of some of the presentations before this
32 one, we're kind of having to rush through this right now, and
33 it's up for final action, and so I don't think rushing through
34 something like this is conducive to taking final action on this,
35 but I don't think we have time to -- We still have several more
36 actions and alternatives in each one of them to get through.

37
38 I don't know if we don't need to maybe postpone this discussion
39 until the next council meeting, where we can actually dedicate
40 the time that we need for this, and we have another committee
41 scheduled to start ten minutes ago, and we're eating into that
42 at this point. I just wondered your thoughts on that, Mr.
43 Chairman.

44
45 **DR. TOM FRAZER:** Leann, are you talking to Dale or myself?

46
47 **MS. BOSARGE:** Either one of you all.

48

1 **DR. FRAZER:** I think let's go ahead and let Dr. Froeschke work
2 through the actions, and we have one more action item, and let's
3 see where we get with that, okay?

4

5 **CHAIRMAN DIAZ:** Dr. Porch.

6

7 **DR. CLAY PORCH:** Just a couple of comments on what Dr. Froeschke
8 brought up. There is a lot packed into Mr. Atran's comments as
9 well, and I won't try and touch on all of it, but I think a key
10 point is that, in determining an MSY proxy, based on an SPR
11 level, the goal is to pick an SPR level that matches up closely
12 to what you would expect for a given life history that would be
13 associated with the MSY, and so, in other words, there's been a
14 lot of analyses that say, with certain life history strategies,
15 say like red snapper or grouper, that, if you calculated the
16 MSY, if you could, there would be a certain range of SPRs that
17 would be associated with that.

18

19 It's really a scientific matter, and the SSC should weigh-in
20 heavily on what proxy would be most appropriate for
21 approximating the MSY, if that makes sense, and so the idea that
22 you're picking an SPR level that approximates the SPR that would
23 be associated with the MSY for any given stock.

24

25 Again, that's a scientific matter that I would expect the SSC to
26 weigh-in heavily, and I know they did, but I would be really
27 careful about picking any alternatives that differ from the SSC
28 recommendation, because it is a science matter.

29

30 The other thing I wanted to mention is that, for assessed
31 species, of course, we can calculate the level of fishing
32 mortality that corresponds to that SPR, and then, if we want to
33 calculate the MSY, we have to make an additional assumption
34 about the nature of the spawner-recruit relationship.

35

36 Very often, we just assume recent levels of recruitment will
37 persist into the near future to generate OFL, and then we use
38 those same values to calculate sort of a dynamic MSY, but just
39 keep in mind that that's sort of a proxy of a proxy for MSY,
40 because we don't actually know what the long-term recruitment
41 would be, and so what ends up happening is, often, when we use
42 recent levels of recruitment to calculate the MSY level, it's a
43 little bit less than what ultimately it could be.

44

45 Then, finally, for unassessed species, we have to remember that
46 these proxies are really just aspirational, because we don't
47 have the data to calculate it, which is what Steve Atran was
48 alluding to.

1
2 Once you conduct an assessment, you can calculate that, and it
3 doesn't necessarily have to be a data-rich assessment, and there
4 is a few species that haven't been assessed that we probably
5 could do some sort of assessment on, and then what Steve is
6 getting at is, where you can't do that -- You might still have
7 those aspirational SPR proxies, based on the life histories of
8 the animals, but, in the meantime, you could apply some data-
9 limited approaches, and he mentioned one possibility.

10
11 If you have a period where the catches have been fairly stable,
12 then you could assume that at least that level is sustainable,
13 and it may not be maximum sustainable yield, and you might not
14 want to even call it that, but I think there is some flexibility
15 in the NS 1 Guidelines to have some sort of proxy for an OFL
16 that's based on a period where you think the landings have been
17 stable and sustainable, although you don't know whether the
18 stock is already -- If it's been fished down and it's just
19 sustainable at a low level, or whether it's underexploited, if
20 all you have is just the history of catches.

21
22 Then I just wanted to reinforce something that Dr. Froeschke
23 said. The only analysis I'm aware of with regard to MSST shows
24 that there is almost no chance that you could -- That a stock
25 would dip below 50 percent of the BMSY proxy apart from
26 overfishing, and so, in other words, you expect a stock to go up
27 and down, because of recruitment variations or fluctuations in
28 natural mortality, but, over any reasonable level of variation,
29 we wouldn't expect the stock to dip below 50 percent of BMSY
30 under natural fluctuations.

31
32 What that does is, if you set the bar that low, is really
33 require you to have fairly draconian rebuilding plans, because,
34 once you kick it in, the stock is already below half of the
35 BMSY, and so you've got a lot further to go.

36
37 The study that we did also shows that it's unlikely that the
38 stock will decrease below 75 percent of BMSY strictly due to
39 natural fluctuations, but you're not lowering the bar so far to
40 have such a draconian rebuilding plan, if that makes sense.
41 That's it.

42
43 **CHAIRMAN DIAZ:** Thank you, Dr. Porch. Dr. Froeschke, are you
44 ready to proceed?

45
46 **DR. FROESCHKE:** Yes, I am. I am ready to proceed to Action 4.1,
47 optimum yield for reef fish stocks and hogfish. The council
48 reviewed this, I believe in September, and selected the

1 preferred alternatives for this action, and just a brief
2 overview. OY is separated into two sub-actions, and the reason
3 is that, for red drum, the no action alternative is different,
4 and so we split it into two actions.

5
6 The other thing is that this action would include all the reef
7 fish stocks that are included in Action 1, as well as hogfish,
8 and we recently did an amendment that defined SDC for hogfish,
9 although it did not include OY, and so it's included in this
10 action for that reason.

11
12 The preferred alternatives are based off of a percentage of the
13 MSY or the MSY proxy, and, often, in the past, the MSY proxies
14 have been based on the yield at FMSY, although the Science
15 Center has recommended that we simplify the approach in this
16 document, and the reason is that, in certain situations, a yield
17 based on FMSY could exceed the MSY, which would not be
18 consistent with the definition of OY, and it's also slightly
19 simpler to calculate a scalar of MSY rather than a yield of
20 FMSY.

21
22 We have made that change, and the percentages in the options,
23 based on the Science Center's work, were scaled to the original
24 ones, and so it really was just a calibration, if you will, and
25 so, for the reef fish stocks, you selected Preferred Option 2b,
26 90 percent of MSY, which is consistent, we think, with
27 approximately a 75 percent at FMSY, based on the yield, and so
28 this is consistent with what is frequently done in stock
29 assessments.

30
31 Preferred Alternative 3 addresses the shallow-water grouper
32 complex specifically, and it's broken out because black grouper
33 is in this stock, and, although it's an assessed stock, this
34 species does not have an OFL with it, based on some detail of
35 the stock assessment, but the Preferred Option 3b is the same,
36 and it's 90 percent of MSY.

37
38 Preferred Alternative 4 addresses goliath grouper, and this is
39 also a unique stock, in that harvest is prohibited for this
40 stock, and one of the options for 2d was a formulaic-based
41 approach, where the annual catch limit could be divided by the
42 overfishing limit and multiplied by the MSY, or the proxy.
43 Given that there is not -- The ACL is zero for goliath, and we
44 just put a tag on there that it's zero if the ACL equals zero,
45 and so this would -- Preferred Alternative 4 would set the OY at
46 zero for goliath, and so it's consistent with how it's been
47 managed for a very long time. I will stop there for questions.

48

1 **CHAIRMAN DIAZ:** Any questions for Dr. Froeschke on Action 4.1?
2 Seeing none, would you proceed, Dr. Froeschke?

3
4 **DR. FROESCHKE:** Let's go to Action 4.2, and this is the OY for
5 red drum. There is an existing OY already for red drum, and it
6 was implemented in Amendment 2 to the Red Drum FMP in 1988, and
7 it is equal to the 30 percent escapement rate of the juveniles,
8 and so it's similar to our discussions of the MSY, and that's
9 how the current OY is set up.

10
11 Alternative 2 would migrate it to an MSY proxy, similar to what
12 we just discussed in Action 4.1. Based on the current
13 management, the council has previously selected the no action,
14 Preferred Alternative 1, which would maintain an OY based on the
15 escapement rate. Any questions?

16
17 **CHAIRMAN DIAZ:** I am not seeing any questions, Dr. Froeschke.

18
19 **DR. FROESCHKE:** Okay, and so a couple more things. One thing
20 that you might have noticed is different on this document is, in
21 the briefing materials, there is no codified text for this
22 document. Similar to Reef Fish 44, with the status
23 determination criteria, there is no rulemaking associated with
24 this document, and so that's the reason there is no codified
25 text.

26
27 In the event that we took final action, it would go through a
28 comment period, and then it would be implemented by the
29 Secretary of Commerce, and so it will be an abbreviated process,
30 hopefully, compared to our regular amendments.

31
32 **CHAIRMAN DIAZ:** Thank you, Dr. Froeschke. I am going to kind of
33 sum up where I think we're at. We've been working on this
34 document for a number of years, and it's up for final adoption
35 at this meeting, and it's still going to be at the pleasure of
36 this committee if we decide to move on it or not. It is an
37 incredibly important document, but it's also very technical and
38 complicated, and I think that's why it's taken us so long to get
39 to the point where we could even consider it for final adoption.

40
41 At this point, I would like to hear from some of the committee
42 members on their pleasure about what they think we should do
43 with the document at this point. We have already heard from Ms.
44 Bosarge that she thinks that maybe we should wait until January
45 to take final action and put some more thought into it, and so I
46 would appreciate any comments from other committee members about
47 their thoughts about where to go with this document. Ms. Levy.

48

1 **MS. MARA LEVY:** Thank you. I mean, I understand that it's a
2 complicated document, in terms of the fact that it has a lot of
3 technical information in it, and you have been working on it for
4 a really long time, and the reason we started this originally,
5 years ago, was because we don't have any of at least the MSY
6 part and the overfishing status determination criteria, and we
7 didn't have anything at all defined, even theoretical values.

8
9 That's why we you started this, and so, I mean, I would hope
10 that you would be able to look at it, and you've picked
11 preferreds, and you've talked about it, and I realize that we're
12 running low on time, and maybe you can take it up in Full
13 Council, but I would encourage you to consider approving it at
14 this meeting.

15
16 Also, just quickly, with respect to some of Steven Atran's
17 comments, right now, like I said, we don't have these status
18 determination criteria defined, and so this document is at least
19 putting in placeholders for some of these unassessed stocks, so
20 that, when you get an assessment, you can already have what you
21 think is an appropriate MSY proxy in there, and that's not to
22 say that, once you get an assessment, you can't change your
23 mind, but at least you have taken the step to look at these
24 different stocks and say these are what we think would be the
25 best proxy for MSY and for overfished status determination
26 criteria.

27
28 They all currently have status determination criteria for
29 overfishing, because we have annual overfishing levels, except
30 for that shallow-water grouper complex that we talked about, and
31 so that is not really an issue, but I think you've spent a lot
32 of, and the SSC has spent a lot of time, looking at all of this
33 and deliberating and picking what you think are the best
34 preferreds for these particular unassessed stocks. Thank you.

35
36 **CHAIRMAN DIAZ:** Thank you, Ms. Levy. Dr. Crabtree.

37
38 **DR. ROY CRABTREE:** Thanks, Dale. Just following-up on Mara, I
39 mean, it is a complicated document, but we've gone over and over
40 and over it, for a number of meetings now, and I think we're
41 probably as good as we can do at the moment, and I really am not
42 sure what would be gained by coming back at the January meeting,
43 and I just don't think we're adding a lot beyond what we've
44 already talked through for the last few meetings, and so I guess
45 my preference would be to go ahead and move forward with final
46 action on the document. These are all things that we will
47 revisit and revise over time, as we learn more, but it just
48 doesn't seem, to me, that we're likely to make much more

1 progress.

2

3 **CHAIRMAN DIAZ:** Thank you, Dr. Crabtree. General Spraggins.

4

5 **GENERAL JOE SPRAGGINS:** I'm not a member of the committee, but,
6 if you would give me a second, if you don't mind, to make a
7 statement.

8

9 **CHAIRMAN DIAZ:** Yes, sir.

10

11 **GENERAL SPRAGGINS:** Okay. As the Red Drum chairman, looking at
12 this, and looking at what we're doing, we are having -- We have
13 requested a meeting of the Red Drum Committee sometime, and
14 because of COVID and because of the situations we're in right
15 now, it's very hard to get things done and the staff is very
16 tasked, and so we're trying to do that in January/February
17 timeframe sometime, maybe by April at the latest, to have that
18 meeting.

19

20 I would like to readdress this, because we're looking at things
21 that -- You know, I think we did what we call a data-poor
22 assessment back years ago on the red drum, and, you know, I
23 don't think that there was anything that we had enough
24 information to use in the states to be able to come up with a
25 reason to do this, and I'm just concerned that, if we pass this,
26 if you all go ahead and do this, that we will be setting a
27 standard for the red drum, and even for the future, that we are
28 not -- I don't think we have enough data on it at this point,
29 and I realize that you all have done a lot of work on this, and
30 I realize that I'm late coming into the game on this, and I
31 understand that, but I would just -- I know Leann made a
32 statement about let's look at this and give it a little more
33 time, and I sure wish you all would look at that for us, as far
34 as the Red Drum Committee, and that's my statement, and I sure
35 appreciate your time. Thank you.

36

37 **CHAIRMAN DIAZ:** Thank you, General Spraggins. Ms. Bosarge.

38

39 **MS. BOSARGE:** Mr. Chairman, I would humbly ask that maybe we
40 take the rest of this conversation up at Full Council. We do
41 have some pretty important things for the shrimp industry coming
42 up, and half of our time for that committee has already elapsed,
43 and we're down to thirty minutes at this point.

44

45 **CHAIRMAN DIAZ:** Thank you, Ms. Bosarge. All right. Well, I'm
46 not seeing any more hands up, and, at this point, we do not have
47 a motion to do anything with this document. Does anybody else
48 want to speak on this document, before we do anything else? I

1 am not seeing any more hands.

2
3 Mr. Chairman, I believe that wraps up this agenda item on this
4 committee, unless somebody wants to do anything with it at Full
5 Council. I understand that, for the next agenda item, the
6 treatment of dead discards by the Southeast Fisheries Science
7 Center in stock assessments, Dr. Calay is not available, and we
8 can defer that until Full Council. Unless anybody has any other
9 comments, or any other business, I am going to turn it back over
10 to the Chairman.

11
12 **DR. FRAZER:** Thanks, Mr. Diaz, and I do appreciate that we have
13 gone over the schedule here, and we will defer the discussion on
14 dead discards until Full Council. We will go ahead and take
15 just a five-minute break, and then we'll jump into the Shrimp
16 Committee, and I will afford Ms. Bosarge some additional time,
17 and we'll run over into lunch, if we need to, to capture as much
18 shrimp business as possible, and so it's 11:30. We'll come back
19 at 11:35. Thanks.

20

21 (Whereupon, the meeting adjourned on November 1, 2020.)

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