

GULF COUNCIL

ECOSYSTEM COMMITTEE

Gulf Council Office and Virtual

Tampa, Florida

June 4, 2025

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- 24 Troy Frady.....Alabama
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1 The Ecosystem Committee of the Gulf Council convened at the Gulf  
2 Council office in Tampa, Florida on Wednesday morning, June 4,  
3 2025, and was called to order by Chairman Kevin Anson.

4  
5 **ADOPTION OF AGENDA**  
6 **APPROVAL OF AUGUST 2024 MINUTES**  
7 **ACTION GUIDE AND NEXT STEPS**  
8

9 **CHAIRMAN KEVIN ANSON:** I would like to go ahead and call the  
10 Ecosystem Committee to order. It's Tab Q in the documents, and,  
11 before we get into the items on the agenda, I just want to confirm  
12 the members on the committee that include myself, of course, Dr.  
13 Frazer, Dr. Banks, Mr. Donaldson, Ms. McCawley and Dr. Sweetman,  
14 Mr. Montegut/Mr. Schieble, Mr. Osborne, Mr. Geeslin, Mr. Sanchez,  
15 Mr. Strelcheck and Mr. Helies.

16  
17 The first item on the agenda is Adoption of the Agenda. Are there  
18 any changes that need to be made to the agenda? I'm not seeing  
19 any. Is there any opposition to approving the agenda as written?  
20 I'm not seeing any, nor am I seeing any hands up on the screen,  
21 and so that will move, and so the agenda is adopted.

22  
23 The second item is the Approval of the August 2024 minutes, Tab Q,  
24 Number 2. Are there any edits that need to be made to the minutes?  
25 I'm not seeing any. Is there any opposition to approving the  
26 minutes as written? I'm not seeing any hands up, or I'm seeing  
27 some nods, and so the minutes are approved. That will take us to  
28 Item III on the agenda, the Action Guide and Next Steps. Dr. Wang.

29  
30 **DR. VERENA WANG:** Thank you, Mr. Chair, and, if it's all right  
31 with you, we can move through the action guide item-by-item.

32  
33 **CHAIRMAN ANSON:** I prefer maybe we go with the one item, and then  
34 let's read it one at a time.

35  
36 **ECOSYSTEM TECHNICAL COMMITTEE RECOMMENDATIONS ON FISHERY**  
37 **ECOSYSTEM PLAN**  
38

39 **DR. WANG:** Perfect. All right. Great, and so, first up, we have  
40 Agenda Item Number IV, which is the Ecosystem Technical Committee's  
41 recommendations on the fishery ecosystem plan. The ETC met on May  
42 9<sup>th</sup> to discuss the fishery ecosystem plan. Staff will provide an  
43 overview of progress toward development of the fishery ecosystem  
44 plan, and this includes an update on the council's Inflation  
45 Reduction Act projects, one of which is directly related to the  
46 fishery ecosystem plan, and the other, which is a project that's  
47 geared toward regulatory streamlining.

1 Staff will review the recommendations from the ETC about the draft  
2 structure of the fishery ecosystem plan, the steps within the  
3 fishery ecosystem issue loop, as well as their recommendations for  
4 the scope of work for a social science consultant to support the  
5 fishery ecosystem plan stakeholder engagements.  
6

7 The committee should review the meeting summary, provide feedback  
8 on the draft structure of the fishery ecosystem plan, the fishery  
9 ecosystem issue loop, and the objectives for the forthcoming social  
10 science consultant, and, if it's all right with you, we can move  
11 into the presentation.  
12

13 **CHAIRMAN ANSON:** Please.  
14

15 **DR. WANG:** Bernie, if you could pull up 4(b), please. Thank you.  
16 All right. Before we get started, I just wanted to pause here for  
17 a second to acknowledge that the ecosystem stuff has a ton of  
18 acronyms that all kind of sound the same. They all have an "E" in  
19 them, and so, aside from the Ecosystem Technical Committee being  
20 the ETC, I'm going to try my best to stay away from the alphabet  
21 soup and actually say all of these things, but these acronyms do  
22 appear on some of the following slides, and so, if I trip up, or  
23 if you need a reference, this is going to be your cheat sheet here  
24 on Slide Number 2.  
25

26 Before we dive into the fishery ecosystem plan, we thought that it  
27 would be useful to provide the committee with an update on the  
28 council's Inflation Reduction Act projects, and so, as a reminder,  
29 at the end of 2023, it was announced that there was going to be a  
30 funding opportunity available to the regional councils to conduct  
31 projects that were geared toward climate-ready fisheries  
32 management.  
33

34 At the beginning of 2024, staff worked on project proposals and  
35 worked with NMFS to refine and revise those proposals, and the  
36 final projects were approved and funded in August of 2024, and so  
37 the council has two main projects, and the first project is the  
38 one that is on this slide here, which is a project that's geared  
39 toward management integration and response.  
40

41 The spirit of this project is really in recognizing that fisheries  
42 management is slow and deliberate, by design, but, in being slow  
43 and deliberate, it often means that management is lagging behind  
44 the science, and so the aim of this project is to improve the  
45 timeliness of integrating updated scientific information into  
46 management decisions, which is good practice in general, but it's  
47 something that's going to become more and more important as both  
48 science and management try to keep up with the pace of change.

1  
2 We are going to approach this project as kind of a two-step  
3 process, and it's going to involve bringing on two different  
4 consultants, and so the first consultant is what we're calling the  
5 program review consultant.

6  
7 The program review consultant is going to be responsible for  
8 conducting a review of the regulatory processes that are being  
9 conducted across the other regional management councils, and the  
10 goal here is really to identify processes that the other councils  
11 are using that are innovative and that were designed with  
12 efficiency in mind and with improving the uptake of scientific  
13 information.

14  
15 One possible process that this first consultant could look into is  
16 the percent change approach that's being used by the Mid-Atlantic  
17 Council. This is an approach that has been previously flagged as  
18 being of interest to the council, and it's also something that the  
19 rec initiative working group has found to be very interesting, and  
20 so the percent change approach is what the Mid is using to set the  
21 harvest levels for some of the recreational species, for two years  
22 at a time, by sort of automatically determining the percentage by  
23 which the recreational harvest for the next two years is either  
24 liberalized or reduced, based on a formula that takes into account  
25 the projected harvest levels and the current biomass levels.

26  
27 That's kind of an efficient way of sort of automatically setting  
28 harvest levels that the Mid is using, and so that's just one  
29 approach that this first consultant could look into.

30  
31 They're also going to be responsible for looking at the data  
32 streams that are required to accomplish these things, and kind of  
33 taking into account the unique data situation that we have here in  
34 the Gulf, and they're also going to be looking at the amount of  
35 time that it takes to both develop and implement some of these  
36 processes.

37  
38 The request for proposals for this first consultant is open now,  
39 and it's been open for about a month, and it closes this Friday,  
40 on June 6<sup>th</sup>, and so, just to give you guys an idea about timing,  
41 once the RFP closes, we'll start the process of reviewing  
42 proposals, selecting a consultant, with the hope of executing a  
43 contract for this first consultant in July and having them present  
44 their findings to you all in November. That is the first  
45 consultant.

46  
47 The second consultant is what we're calling the process  
48 streamlining consultant, and the goal for the second consultant is

1 really to work to operationalize the results from the first  
2 consultant, and so they're going to be working with staff, and  
3 with the council, to prioritize the processes that are identified  
4 by the program review, both in terms of what is of interest to the  
5 committee, and to the council, but also in terms of what is  
6 feasible, given the data that we have that we have to work with,  
7 and the regulatory environment that we're working in, and also  
8 working with staff to develop the actual mechanisms to implement  
9 any regulatory processes that are viable, that are identified in  
10 this program review.

11  
12 That is the first project for the Inflation Reduction Act, which  
13 is a project that is geared toward regulatory streamlining, and I  
14 can pause here for a second, if we have any questions about this  
15 project.

16  
17 **CHAIRMAN ANSON:** Any questions from the committee? I'm not seeing  
18 any.

19  
20 **DR. WANG:** Great. Thank you. Next slide, please, Bernie. All  
21 right, and so the second project is a project that is directly  
22 related to what is on the agenda for this committee today, and so  
23 the second project is geared toward completing the development of  
24 the fishery ecosystem plan for the Gulf.

25  
26 Of course, the fishery ecosystem plan has been in development here  
27 in the Gulf for quite a while already, but the aim of this project  
28 is really to carry us over the finish line, both with the  
29 completion of the writing of the actual fishery ecosystem plan  
30 document itself as well as starting to work on some fishery  
31 ecosystem issues, including a pilot red tide fishery ecosystem  
32 issue and perhaps starting to think about some climate-focused  
33 fishery ecosystem issues.

34  
35 I will provide the committee with a refresher about the fishery  
36 ecosystem plan, and what the fishery ecosystem issues are, in the  
37 next couple of slides, since I know that it's been a minute since  
38 we've thought about the fishery ecosystem plan in this committee.

39  
40 The last point that I want to mention is that, for this project,  
41 we now have funding to bring on a social science consultant to  
42 help develop and conduct the stakeholder engagements for the  
43 fishery ecosystem plan, and I'll come back to that in the last  
44 couple of slides in this presentation.

45  
46 All right, and so we thought that it would be useful to start off  
47 with kind of an overview of where we are, and where we've been,  
48 with the fishery ecosystem plan in the Gulf before we start talking

1 about where we are moving forward.

2

3 In October of 2018, the council passed a motion to begin  
4 development of the fishery ecosystem plan and to establish the  
5 ETC, and so the Ecosystem Technical Committee, the ETC, had its  
6 inaugural meeting in March of 2020, where they really started to  
7 discuss the overarching goals of what a fishery ecosystem plan for  
8 the Gulf could be.

9

10 In February of 2021, the council contracted LGL to develop the  
11 fishery ecosystem plan for the Gulf, and so, a couple of times  
12 that year, in 2021, the ETC met to receive updates from LGL and to  
13 provide feedback to them as they were developing the Gulf fishery  
14 ecosystem plan.

15

16 In April of 2022, LGL presented their final product to the council,  
17 and the council approved of LGL's fishery ecosystem plan draft as  
18 a framework for continued development of the fishery ecosystem  
19 plan, and so, a couple of times in 2023, the ETC met to kind of  
20 carry that vision forward.

21

22 They met to discuss modifications to the fishery ecosystem plan  
23 itself, to the structure of the fishery ecosystem issue loop, and  
24 they talked about how to prioritize fishery ecosystem issues, and  
25 they recommended some fishery ecosystem issues to the council, and  
26 so, in October of 2023, the council approved of red tide as a pilot  
27 fishery ecosystem issue, and, in August of 2024, the council  
28 received the Inflation Reduction Act funding to begin work to  
29 support the completion of the fishery ecosystem plan, and not on  
30 this slide is the ETC met in May to continue work on the fishery  
31 ecosystem plan.

32

33 The LGL vision for a fishery ecosystem plan, and the plan that was  
34 approved by the council, is to develop a fishery ecosystem plan  
35 for the Gulf that is built upon individual fishery ecosystem  
36 issues, and so this is meant to be kind of a tangible way to bring  
37 ecosystem approaches into fisheries management.

38

39 I have the definition of a fishery ecosystem issue on the left  
40 here. That's how it was defined in the LGL document, but, in  
41 summary, just a fishery ecosystem issue is an ecosystem issue of  
42 concern that rises beyond the level of single species management  
43 that can potentially be addressed by council action.

44

45 On the right here, we have the draft outline of a fishery ecosystem  
46 plan that the ETC has been working on for quite a while now, and  
47 so this takes some of the pieces of the LGL fishery ecosystem plan  
48 and incorporates some of the ETC's ideas as well.

1  
2 The draft fishery ecosystem plan outline here has four chapters.  
3 The first chapter is going to be kind of an overarching  
4 introduction into ecosystem-based fisheries management and  
5 ecosystem approaches to fisheries management and the goals for  
6 ecosystem approaches in the Gulf.  
7  
8 Now, the second chapter is going to be an introduction to the  
9 concept of using fishery ecosystem issues as sort of the building  
10 block for the Gulf fishery ecosystem plan.  
11  
12 The third chapter is going to be a detailed look at the fishery  
13 ecosystem issue loop, which we'll talk about on the next slide,  
14 and the fishery ecosystem issue loop is just a structured way for  
15 really digging into and investigating an individual fishery  
16 ecosystem issue, and the fourth chapter is going to be the  
17 communications plan, which the council has heard about fairly  
18 recently from Emily and the Outreach and Education Committee.  
19  
20 The draft fishery ecosystem plan right now has four chapters, and  
21 these chapters are really kind of a process document outlining how  
22 the process will work for this fishery ecosystem plan and for these  
23 fishery ecosystem issues.  
24  
25 On the bottom there, where it says "separate modules", this is  
26 really just to say that, outside of the fishery ecosystem plan,  
27 the fishery ecosystem issues that are actually being looked at and  
28 worked on, those are going to be the living and active part of  
29 this process, and so we're still working out exactly how this is  
30 going to work, but these fishery ecosystem issues are probably  
31 going to be either in a living appendix, or they're going to have  
32 a space on the council's ecosystem webpage, where their progress  
33 can be tracked and where we can report progress and outcomes.  
34  
35 As I mentioned before, the fishery ecosystem issue loop is the  
36 structured process for working through an individual fishery  
37 ecosystem issue, taking it from the scoping phase of looking at  
38 the issue to eventually potentially providing recommendations for  
39 how to address the issue.  
40  
41 The ETC has spent a lot of time kind of modifying this fishery  
42 ecosystem issue loop, and this loop has seen a lot of different  
43 iterations since the original LGL version, but some of the main  
44 changes that have happened since the original version are that the  
45 ETC really wanted to focus on scoping, and on fleshing out the  
46 scoping section, because it seems like the scoping section is  
47 really going to be important for setting up where the rest of the  
48 loop goes, and so they really wanted to put stakeholder engagement

1 at the forefront of scoping, as well as really identifying the  
2 dimensions of the problem, including kind of the scope and the  
3 scale of the issue and the scale of the data that are available or  
4 not available to answer the question, as well as identifying, kind  
5 of right off the bat, whether the council has the authority to  
6 manage this issue.

7  
8 Additional changes that the ETC have made are really to improve  
9 the flow of the loop, and the most recent changes that happened at  
10 the May meeting were really just some small tweaks to increase the  
11 flexibility of the potential outcomes of this loop.

12  
13 In April of 2022, the council tasked the ETC with actually  
14 recommending some fishery ecosystem issues, and so the ETC  
15 recommended six fishery ecosystem issues of red tide, reducing  
16 regulatory discards, finfish depredation, the impacts of climate  
17 change on fish and fishing communities, chasing optimum yield, and  
18 offshore wind energy.

19  
20 These last two are in gray because, in June of 2023, the council  
21 removed those last two items from the list of fishery ecosystem  
22 issues, I think mostly because offshore wind energy seemed like  
23 something that was pretty far outside of the council's purview,  
24 and that chasing optimum yield wasn't quite an ecosystem issue,  
25 and it's more of kind of an overarching goal of fisheries  
26 management.

27  
28 There is an asterisk at the top of the slide just to say that,  
29 while these fishery ecosystem issues were kind of selected by the  
30 council, and were recommended through kind of informed discussion  
31 by the ETC, these fishery ecosystem issues haven't gone through  
32 the formal prioritization process that's kind of outlined in the  
33 fishery ecosystem plan, and they haven't received formal  
34 stakeholder input for gathering fishery ecosystem issues from  
35 stakeholders.

36  
37 The last thing that I want to mention about the fishery ecosystem  
38 plan is the social science consultant, and so, like I mentioned  
39 previously, we now have funds to bring on a social science  
40 consultant to conduct stakeholder engagements for the fishery  
41 ecosystem plan, and so some of the goals of this social scientist  
42 are going to be to develop a structured process to take out to the  
43 public to work with them to identify stakeholder-driven fishery  
44 ecosystem issues.

45  
46 This can either be done through focus groups, or maybe through  
47 participatory modeling, but we're hoping that through the proposal  
48 process that different groups will propose kind of new ways to

1 approach this.

2  
3 The second goal for the social scientist is to develop a  
4 communications plan to identify who to engage with, what the  
5 relevant stakeholder groups are across the Gulf, and we're also  
6 tasking them with engaging groups that don't typically participate  
7 in the council process. We know that ecosystem issues, and climate  
8 issues, impact different fishing communities in different ways,  
9 and we want to make sure that everybody has a seat at the fishery  
10 ecosystem plan table.

11  
12 Next, we have a goal for having the social scientist work to  
13 evaluate the social and economic impacts of a subset of fishery  
14 ecosystem issues on fishing communities themselves, and so really  
15 seeing how these ecosystem issues impact fishing communities and  
16 people's businesses, and, finally, the social scientist is going  
17 to work with staff to help finalize, and that should say "Chapter  
18 4" there, instead of "Chapter 3", the communications plan portion  
19 of the fishery ecosystem plan document.

20  
21 We presented the ETC with a draft scope of work for this social  
22 science consultant, that looked a lot like what you saw on the  
23 previous slide, at their May meeting, and the ETC, and the social  
24 science contingent on the ETC, had a lot of really helpful  
25 recommendations for things that we should consider before we put  
26 out the proposal for this social science consultant.

27  
28 The ETC really wanted to emphasize the need to engage with a  
29 consultant with experience communicating specifically with  
30 fishermen. This is something that's really important for  
31 engagement and for getting helpful, useful dialogue.

32  
33 The second recommendation was that we should really decide whether  
34 we want to focus on evaluating the impacts of fishery ecosystem  
35 issues from either a social or an economic angle, and the rationale  
36 for choosing one or the other, per the social scientists on the  
37 ETC, was that it's going to be unlikely that we'll be able to  
38 recruit a social scientist, or a consultant, or a consulting firm,  
39 that has the capacity to effectively do both of these things.

40  
41 They're kind of different skillsets, and so they thought that it  
42 would be useful to really focus on deciding whether one or the  
43 other was more important for us, and then, lastly, the ETC  
44 recommended that we evaluate the tradeoffs between survey and non-  
45 survey based approaches for evaluating the impacts of fishery  
46 ecosystem issues.

47  
48 Survey based approaches are going to be able to reach more

1 stakeholders, and it's going to be able to provide results that  
2 are quantitative, but sending out surveys requires a pretty lengthy  
3 Paperwork Reduction Act clearance process, and so they wanted us  
4 to consider the tradeoffs between these survey approaches and the  
5 value that they can add to the information that we get, versus  
6 non-survey-based approaches, like focus groups and participatory  
7 modeling, that can still provide valuable information, but don't  
8 require this PRA clearance, and so they really wanted to kind of  
9 evaluate the tradeoffs and see whether the juice was worth the  
10 squeeze for these surveys.

11  
12 This is the last slide that I have here, with some of the next  
13 steps for the fishery ecosystem plan, and so, next up, we need to  
14 complete developing the request for proposals for this social  
15 science consultant, and the timing on some of this is that we're  
16 planning to put the request for proposals out sometime by the end  
17 of this month, June of 2025, and then, once we have a social  
18 science consultant onboard, they will work with the Outreach and  
19 Education Technical Committee to develop a stakeholder engagement  
20 plan, and that will be reviewed by both the ETC and the council  
21 this fall, with the plan to begin stakeholder engagements during  
22 the winter.

23  
24 Then, when it comes to the development of the fishery ecosystem  
25 plan document itself, the plan is to incorporate the feedback from  
26 the Ecosystem Technical Committee, as well as from the council, to  
27 have a document, a draft document, that's ready for the ETC and  
28 the council to review this fall, and that is all that I have here,  
29 and so I'll turn it back to you, Mr. Chair.

30  
31 **CHAIRMAN ANSON:** Thank you, Dr. Wang, for the presentation. Do we  
32 have any questions, or comments, from the committee? Dr. Sweetman.

33  
34 **DR. C.J. SWEETMAN:** Thank you, Mr. Chair. I think it's a solid  
35 plan. I guess my only question is, these RFPs, are they -- We've  
36 already secured that money, correct? Okay, and that's all I  
37 needed. Thanks.

38  
39 **DR. WANG:** Correct.

40  
41 **CHAIRMAN ANSON:** Any other questions, or comments? Mr. Sanchez.

42  
43 **MR. JOHN SANCHEZ:** Yes, and I'm pleased to see this, after so long.  
44 I guess the question is when? Let's go. Let's do this. What is  
45 the holdup?

46  
47 **CHAIRMAN ANSON:** Dr. Wang.

48

1 **DR. WANG:** Yes, and let's do this, and so, the next item on the  
2 agenda, we're going to talk a little bit about how we're starting  
3 to move forward.

4  
5 **CHAIRMAN ANSON:** Mr. Strelcheck.

6  
7 **MR. ANDY STRELCHECK:** Thanks for the presentation. I guess it  
8 wasn't clear to me if you're asking the council to weigh-in on the  
9 ETC recommendation with regard to should they focus this on social  
10 or economic considerations, if you're wanting input now or after  
11 the next presentation.

12  
13 **DR. WANG:** If you have feedback for now, that would be great. The  
14 next presentation is going to be a focus specifically on one  
15 fishery ecosystem issue, and so, if you have general comments about  
16 whether the council would be more interested in the social or  
17 economic side of things, that would be very helpful.

18  
19 **MR. STRELCHECK:** This is just, I think, my own personal perspective  
20 and opinion. You know, we often talk, around this table, about  
21 the limitations on the economic information that we have available  
22 to us, and so I see the value of both, but I really see the value  
23 more on the economic side of how these ecosystem events can impact,  
24 obviously, stakeholders and businesses, and so I would be much  
25 more, I think, interested in seeing work done on the economic side.

26  
27 **CHAIRMAN ANSON:** Dr. Sweetman.

28  
29 **DR. SWEETMAN:** A question on that. Why does it have to be  
30 either/or, for social or economic?

31  
32 **DR. WANG:** I think the rationale that the ETC provided for wanting  
33 us to focus on one versus the other is that there are social  
34 scientists who are anthropologists, and there are social  
35 scientists who are economists, and it's going to be hard to find  
36 someone who can do both. I mean, that's something that we can  
37 potentially request in the proposal, and they can outline their  
38 qualifications to approach both of these things, but I think we  
39 need to be prepared to pick a lane.

40  
41 **CHAIRMAN ANSON:** Any other comments? All right. That will take  
42 us then to our next item on the agenda, and that would be Item  
43 Number V, Discussion of Red Tide Fishery Ecosystem Issue Pilot.  
44 Dr. Wang.

45  
46 **DISCUSSION OF RED TIDE FISHERY ECOSYSTEM ISSUE PILOT**

47  
48 **DR. WANG:** Thank you, Mr. Chair, and so next up is discussion of

1 the red tide fishery ecosystem issue pilot, and so, at its May  
2 meeting, the ETC tested the fishery ecosystem issue loop, using  
3 red tide as a pilot issue, and so staff will review the ETC  
4 discussion on the red tide fishery ecosystem issue goals, the  
5 challenges, and also provide an overview of the ongoing red tide  
6 research that's relevant to federal fisheries.

7  
8 Based on this pilot exercise, the ETC concluded that the fishery  
9 ecosystem issue loop performed well, but they also recommended  
10 that a task force be formed to conduct further work on a red tide  
11 fishery ecosystem issue, and so staff will then provide information  
12 on potential paths forward for a red tide fishery ecosystem issue.

13  
14 The committee should review the meeting summary, provide feedback  
15 on the red tide pilot exercise, and provide any information to  
16 staff prior to development, further development, of the red tide  
17 fishery ecosystem issue, and we can move into the presentation,  
18 and so that's going to be perfect. Thank you, Bernie.

19  
20 Great, and so I wanted to start off here with a little bit of  
21 background on how we landed on red tide as a pilot fishery  
22 ecosystem issue.

23  
24 The ETC spent a lot of time talking about the fishery ecosystem  
25 plan, and the fishery ecosystem issue loop, and how to tweak and  
26 modify the fishery ecosystem issue loop to best serve our purposes,  
27 but I think they pretty quickly realized that, in order to actually  
28 make further progress, and to really evaluate the performance of  
29 the fishery ecosystem issue loop, they needed to stop talking about  
30 fishery ecosystem issues as a concept and really start working on  
31 a tangible actual fishery ecosystem issue.

32  
33 In September of 2023, the ETC passed a motion to recommend to  
34 select one pilot fishery ecosystem issue, in order to help develop  
35 the fishery ecosystem plan process and the fishery ecosystem issue  
36 loop procedures.

37  
38 The ETC recommended that red tide be the fishery ecosystem issue  
39 that is initially piloted, and so their rationale for recommending  
40 red tide was that red tide is a known entity in the Gulf. There  
41 are a lot of different groups that are studying red tide, from a  
42 lot of different angles, already, and red tide is something that  
43 the council already considers in some of its decision-making. Red  
44 tide is incorporated as excess mortality in stock assessments for  
45 both gag and for red grouper, and so it's not an unfamiliar issue.

46  
47 Because of this familiarity, the ETC thought that red tide would  
48 be an appropriate vehicle for testing this fishery ecosystem issue

1 loop, not only because there's a lot of information available on  
2 red tide, but there's still a lot of work that needs to be done to  
3 bring this red tide information into the management sphere.

4  
5 Following on this, the council passed a motion, in October of 2023,  
6 to support the ETC's approach using red tide as the initial fishery  
7 ecosystem issue that will articulate potential management  
8 applications to the council, and I think the impetus between the  
9 second half of that motion, "articulate potential management  
10 applications to the council", is that this pilot should be more  
11 than just a shakedown of the system, but should really work to  
12 identify management application for red tide.

13  
14 Toward that aim, at its May meeting, the ETC began work on the red  
15 tide pilot fishery ecosystem issue, and so they began working their  
16 way through this fishery ecosystem issue loop, with red tide as  
17 the fishery ecosystem issue, and so, because this is the ETC's  
18 first crack at the red tide fishery ecosystem issue, it's not  
19 surprising that they spent most of the time discussing the scoping  
20 phase of red tide and the workplan phase of red tide.

21  
22 Today, I'm not going to walk the committee through the ETC's entire  
23 discussion about all the different individual components of FEI  
24 scoping and the fishery ecosystem issue workplan, but I did want  
25 to highlight some of the interesting discussion that the ETC had  
26 around the overarching goals of a red tide fishery ecosystem issue,  
27 and also provide an overview of some of the ongoing red tide  
28 research that's happening that is relevant to federal fisheries.

29  
30 In starting to work on this red tide fishery ecosystem issue, the  
31 ETC pretty quickly realized that, with an issue that is as broad  
32 as red tide, there's going to be a pretty wide range of perspective  
33 goals that can be worked toward, depending on the perspective that  
34 you approach this problem from, and I don't think that this is  
35 going to be an issue that is unique to red tide.

36  
37 I think that ecosystem issues, by nature, are very broad, and so  
38 this is going to be something that comes up again, and so the ETC  
39 discussed this sort of spectrum of potential goals for a red tide  
40 fishery ecosystem issue that are represented in these boxes here,  
41 representing kind of a range of different things of what we might  
42 hope to achieve from a different set of perspectives by embarking  
43 on this red tide fishery ecosystem issue.

44  
45 The first goal, on the top-left here, is to be more responsive to  
46 red tide mortality when setting catch advice. Of course, we know  
47 that red tide mortality is already incorporated into stock  
48 assessments for gag and for red grouper. Incorporating this excess

1 mortality is essential for getting an accurate stock assessment,  
2 and for appropriately setting catch advice, but the ETC identified  
3 that red tide fishery ecosystem issue goals that are centered  
4 around catch levels, and catch levels only, are likely to be pretty  
5 unsatisfying to stakeholders, given the perception that  
6 incorporating red tide into stock assessments is something that  
7 can only lower the ABC.

8  
9 That's not necessarily the case, but it is definitely the  
10 perception, and so it's really giving the idea that the industry  
11 is being further punished for something that is already outside of  
12 control.

13  
14 The second goal, in the middle, is the goal to mitigate the impacts  
15 of red tide events on the fishing industry themselves, and some  
16 ideas that were floated, from previous stakeholder engagement  
17 efforts that were conducted specific to red tide before this red  
18 tide fishery ecosystem issue, were ideas to do things like  
19 facilitate access to substitute species or extending the season to  
20 make up for lost time during severe red tide events.

21  
22 The goal, on the top-right, is a goal to prevent red tide events  
23 from occurring, which, obviously, is something that is completely  
24 outside of the council's purview, and it's probably outside of any  
25 agency's purview, but it's something that the ETC wanted to  
26 discuss, both as a means to support stakeholders in understanding  
27 the causes of red tide as well as to perhaps open the avenues for  
28 interagency communication.

29  
30 The next goal that they discussed is the goal on the bottom right,  
31 which is a goal to develop a more comprehensive data infrastructure  
32 to respond to red tides. The ETC identified that the current  
33 survey infrastructure really isn't set up to collect data from  
34 episodic events, or pulse events, like red tides, and so this could  
35 be an opportunity to engage stakeholders in collecting real-time  
36 data, which could not only fill some data gaps, but also build  
37 some trust with the community.

38  
39 The final goal, on the bottom-left, is a goal to inform and educate  
40 stakeholders about how red tide factors into fisheries management,  
41 and so, throughout their discussions of red tide, the ETC really  
42 found that -- In conjunction with the Outreach and Education and  
43 Technical Committee members who were present at the meeting, they  
44 really identified that communication was going to be important for  
45 this red tide fishery ecosystem issue, not only in communicating  
46 how any possible avenue that we take would operate, and would work,  
47 but specifically in communicating how red tide mortality is  
48 incorporated into stock assessments.

1  
2 The ETC received a presentation from Dr. Karnauskas about some of  
3 the ongoing research that's happening at the Science Center, and  
4 adjacent to the Science Center, that's relevant to red tide impacts  
5 on federal fisheries, and so I'm going to provide a brief overview  
6 of some of this research here, but there is a link to the  
7 presentation that was provided to the ETC at the bottom-right of  
8 this slide, with more detail, and we also have Dr. Karnauskas on  
9 the line, if folks have specific questions.

10  
11 The first ongoing research effort is an effort to predict extreme  
12 red tide events and create an early warning system for the  
13 industry.

14  
15 There's work that's ongoing at AOML, using biogeochemical  
16 modeling, to basically create a red tide forecast, similar to a  
17 hurricane forecast, kind of identifying the conditions that are  
18 ripe for red tide and providing a forecast that can perhaps help  
19 the industry prepare, and adjust, ahead of time.

20  
21 The next ongoing research effort is one to evaluate the impacts of  
22 red tide events on fish populations. This is ongoing work with  
23 the Restore Project to continue work on the West Florida Shelf  
24 Ecosystem Model and to really work to operationalize the West  
25 Florida Shelf Ecosystem Model.

26  
27 The West Florida Shelf Ecosystem Model already provides age-  
28 specific estimates of red tide mortality that are used in gag and  
29 red grouper stock assessments, but there's also work to be able to  
30 provide this information for other species as well, as necessary.

31  
32 The third type of ongoing research effort is an effort to better  
33 account for red tide when adjusting catch limits, and so there is  
34 an ongoing RESTORE project to evaluate how reference points are  
35 affected by red tide episodic mortality and how future uncertainty  
36 in these red tide events, both in magnitude and in frequency, could  
37 affect these reference points. There's also a separate project  
38 conducting simulation to evaluate how management advice is robust  
39 to disturbance events and perturbation events like red tide.

40  
41 The fourth category of research effort that's happening is to  
42 evaluate the impacts of red tide on the industry, and so there's  
43 an ongoing project looking to assess the patterns of community-  
44 level resilience following big-time disturbance events like red  
45 tides, and like hurricanes, and there's also an analysis that was  
46 completed conducting a fine-scale study of fleet behavior, using  
47 VMS data, to look at how the fleet behavior changes in response to  
48 red tide events.

1  
2 Finally, there is a red tide synthesis paper in the works, working  
3 to summarize what we know about red tide in the Gulf, what's  
4 already been done for red tide, in terms of management and stock  
5 assessments, and what might need to be done moving forward.

6  
7 After this sort of test drive of the red tide fishery ecosystem  
8 issue that the ETC took, the ETC had some recommendations, and so  
9 their first recommendation was regarding the fishery ecosystem  
10 issue process itself, which is part of this pilot process.

11  
12 They identified that, so far, the fishery ecosystem issue loop is  
13 performing as intended, and it's working pretty well, and they  
14 didn't identify any major roadblocks, or stumbling points, and  
15 they continue to approve of the fishery ecosystem issue loop as an  
16 appropriate vehicle to approach incorporating ecosystem ideas into  
17 fisheries management in the Gulf, for the Gulf fishery ecosystem  
18 plan.

19  
20 In terms of the red tide fishery ecosystem issue itself, the ETC  
21 identified that work is really just beginning on identifying  
22 management on-ramps for red tide research projects and that a  
23 dedicated group is going to be necessary to really carry out this  
24 initiative. The ETC passed a motion that, upon discussion of the  
25 fishery ecosystem issue process in the context of red tide, the  
26 committee recommends the council appoint a task force to carry out  
27 this initiative.

28  
29 Okay, and so, after this ETC meeting, and after receiving this  
30 motion from the ETC, we had a discussion with the ETC chair about  
31 whether it was appropriate, or necessary, to request resources  
32 like this for a red tide fishery ecosystem issue, given the current  
33 reductions in capacity in both the Science Center and the Regional  
34 Office at this moment.

35  
36 We talked with the ETC chair and came up with sort of a compromise,  
37 which is to form a small technical working group that includes  
38 just a handful of members of the Science Center and -- Maybe I'll  
39 give it a second to catch up. There we go.

40  
41 Okay, and so the compromise, that was recommended by the ETC chair,  
42 was to form a small technical working group that consists of just  
43 a couple of members of folks from the Science Center and council  
44 staff, and this is something that would not require a formal  
45 request for more resources from the council, and this working group  
46 would work together to synthesize the ongoing research that's  
47 happening for red tide and bring this to the ETC for consideration  
48 and for identification of management on-ramps.

1  
2 This seemed like kind of a reasonable path forward to carry the  
3 ball forward on red tide, to keep things moving, without having to  
4 take up a lot of additional resources, and also to kind of take  
5 advantage of the existing work that's already out there and working  
6 with the expertise in red tide that exists on the ETC, to kind of  
7 identify the appropriate management on-ramps for red tide to  
8 present to the council. That is kind of the path forward that has  
9 been recommended so far for the red tide fishery ecosystem issue.  
10  
11 The last thing that I will mention here is that we're going to  
12 need to work with the ETC to identify the appropriate format for  
13 reporting of the red tide fishery ecosystem issue, and for fishery  
14 ecosystem issues in general, and so fishery ecosystem issues are  
15 going to be pretty different from traditional council documents.  
16  
17 They're not amendments. The fishery ecosystem process itself is  
18 non-regulatory. That's not to say that the end result of the  
19 fishery ecosystem issue loop couldn't be that the council requests  
20 that staff begin work on a document, but the FEI process, the  
21 fishery ecosystem issue process itself, is not regulatory, and,  
22 also, it's meant to be an iterative process. That's another way  
23 that it's different, in that the fishery ecosystem issue loop is  
24 meant to be able to evaluate itself and adjust and make changes  
25 along the way.  
26  
27 Because of these kind of departures from how a fishery ecosystem  
28 issue loop operates, versus a normal document, we want to find a  
29 way to report on this that is appropriate to this kind of mode of  
30 work, and so one example that we're considering is what the Pacific  
31 Council does to report on their ecosystem initiatives, and there's  
32 a link that's included on this slide here.  
33  
34 The Pacific Council's ecosystem initiatives are kind of analogous  
35 to our fishery ecosystem issues. They're a lot further along in  
36 the process than we are, and so what they do is they have a web  
37 page with ecosystem initiatives, and then it links to individual  
38 initiatives that have been worked on, and then it has like an  
39 appendix of initiatives that are kind of on a wish list, and then  
40 each ecosystem initiative has its own landing page.  
41  
42 Instead of linking to a formal document, it's more of kind of a  
43 narrative storyboard format that talks about the ecosystem  
44 initiative and then has links to work products and summaries and  
45 meeting materials and presentations and things like that, and so  
46 we think that that could be one avenue for how we report on these  
47 fishery ecosystem issues. We just want to make sure that we find  
48 a way that we can be transparent about the process and report our

1 progress, and potential outcomes, and that's all that I have for  
2 red tide here, and I'll turn it back over to you, Mr. Chair.

3  
4 **CHAIRMAN ANSON:** Thank you again, Dr. Wang. Any comments, or  
5 questions, from the committee? Dr. Sweetman.

6  
7 **DR. SWEETMAN:** Yes, and thanks again for the presentation, Dr.  
8 Wang. I think this is a very important initiative. I think you  
9 somewhat touched on it with the Pacific Council. I think we're  
10 really behind the ball here, as far as relative to some of the  
11 other councils around the U.S., and so I'm looking forward to  
12 seeing this continue on.

13  
14 The last thing I want -- I think, even though we're looking at red  
15 tide here, I think this entire process can be incredibly helpful  
16 for a lot of the fisheries that we're struggling with. You know,  
17 king mackerel, for example, and like we don't really know what's  
18 going on there, and so initiatives like this can be incredibly  
19 useful for at least pointing us in the right direction for things  
20 that we need to do.

21  
22 I guess a couple -- So I'm fully supportive of it. I don't want  
23 this initiative to become basically a paperweight, you know, for  
24 the Gulf Council, that we don't look at, you know, aside from maybe  
25 one meeting a year, or something like that, and so I guess my --  
26 One question that I have, and specific to red tide, and so,  
27 obviously, red tide is a naturally occurring event, right?

28  
29 It can be, obviously, exacerbated by nutrient inputs from  
30 terrestrial sources, which is beyond our authority, and so, in  
31 that specific example, Dr. Wang, how would we -- How would the  
32 ETC, or how are we, thinking of interacting with maybe stakeholders  
33 that aren't directly involved in fisheries and are more on the  
34 terrestrial side of things that can exacerbate some of the impacts  
35 of red tide?

36  
37 **DR. WANG:** That's a great question. Obviously, we have no control  
38 over how and when red tides happen, and, like you said, it's kind  
39 of a complex set of factors that set off a big red tide bloom,  
40 some of which is connected to releases and to what's happening on  
41 land, and so I'm not really sure how to answer your question about  
42 how we interact with stakeholders that are outside of kind of the  
43 federal fishing communities that we talk about.

44  
45 I think one avenue could be something that Emily has talked about  
46 with the Outreach and Education Technical Committee, is that a  
47 product that could happen is that we could develop a red tide  
48 report that identifies kind of the economic impacts of red tide on

1 federal fisheries, and that's something that we could communicate  
2 back to other agencies, to let them know like, hey, this is how  
3 you're impacting us here.

4  
5 **CHAIRMAN ANSON:** Mr. Dugas.

6  
7 **MR. J.D. DUGAS:** I just wanted to recognize Dr. Porch.

8  
9 **CHAIRMAN ANSON:** All right. Dr. Porch.

10  
11 **DR. CLAY PORCH:** Thank you for recognizing me, and thank you for  
12 this presentation, and I love this red tide example. It's a great  
13 example of what can be done when multiple state and federal  
14 partners work together.

15  
16 I also want to commend the step of establishing that technical  
17 working group in your last slide, and particularly the  
18 identification of management on-ramps, so this doesn't just become  
19 a paperweight, as C.J. said. I do also want to mention that part  
20 of the reason we made so much headway on this red snapper, or I  
21 mean red tide, FEI is that, you know, we had already done a lot of  
22 the work, and the particular staff working on it have largely  
23 remained intact.

24  
25 For some of the other potential FEIs, that may not be the case,  
26 and we lost all of our Climate, Ecosystem, and Fisheries Initiative  
27 IRA funding, and all of the people that were hired as part of that  
28 program, and they were all probationary employees, and so our  
29 capacity is definitely drastically reduced to support some of the  
30 future FEIs, which means we will need to rely even more heavily on  
31 other potential partners, but I do think this is critical work,  
32 and we'll do our very best to support the whole program, you know,  
33 under our reduced capacity, and so thank you.

34  
35 **CHAIRMAN ANSON:** Thank you, Dr. Porch. We appreciate the comments  
36 and the support, and commitment to support, of your staff as we  
37 look to further explore this particular issue, and hopefully others  
38 as we go through time. Dr. Frazer.

39  
40 **DR. TOM FRAZER:** Thank you, Mr. Chairman, and thank you, Dr. Wang,  
41 for the presentation. I was interested in a comment you made about  
42 when you think about things like red tide, and you incorporate  
43 that into the stock assessment process, ultimately you're  
44 accounting for a loss, right, in the fishery, and so you have a  
45 reduction in the OFL and the ABC that tends to negatively impact  
46 the fishery, but you said that's not always the case, right, and  
47 so, you know, I could see an opportunity, if you were to develop  
48 the forecasting and the prediction tools, that would enable you to

1 look at, you know, where red tide is going to be.  
2  
3 You might be able to act more proactively, but that would require  
4 that you're very responsive, right, and you insert, you know, a  
5 change in catch levels, because what I would like to know, and I  
6 don't know if you can answer that, or if Mandy is on the phone, or  
7 Clay, but, if you have a typical red tide event, what is the loss,  
8 right, in available biomass or production that you incorporate?  
9  
10 The reason I'm asking that is, if you knew that and, ultimately  
11 you were able to forecast a red tide, and predict what the impact  
12 might be on that biomass, you might be able to proactively harvest  
13 that biomass, right, and that's something that we don't think  
14 about.  
15  
16 I'm not sure we're quite there yet, but this approach would allow  
17 us to get that way, and so I guess, to boil it down, typically, if  
18 you have a red tide event, how much, in terms of pounds or fraction  
19 of the available catch, is lost?  
20  
21 **DR. WANG:** That's something that I do not have the answer to. I  
22 don't know if Mandy or Clay has an answer. Mandy is putting her  
23 hand up.  
24  
25 **DR. MANDY KARNAUSKAS:** Yes, and thanks for that question, and so,  
26 based on some of the work that Skylar Sagarese has done in the  
27 past, and others on the stock assessment, looking, you know,  
28 retroactively at the losses, you can track the biomass losses and  
29 the, you know, age composition and CPUE indices.  
30  
31 She's been able to show that the losses of some of the major  
32 events, like the ones we've had in 2005 and 2014, I think have  
33 amounted to between 20 and 30 percent of the biomass loss for red  
34 grouper and gag grouper, and so it is a significant loss.  
35  
36 To your question about -- So it is always a negative impact, right?  
37 You have the red tide that is killing fish that could otherwise be  
38 harvested, but there have been some cases where information that's  
39 been brought to the table on the state of the red tide, and how  
40 severe it is, have led the SSC to be less risk-averse, and so they  
41 have said, okay, maybe we don't need to cut back some, or be so  
42 precautionary in cutting back on the ACL, and we can be a little  
43 bit more risky, because the red tide isn't as bad as we think it  
44 was going to be. There's an example where, even though we've had  
45 a red tide, we've been able to give more quota to the fishermen.  
46  
47 In regard to the forecasting of a red tide, I don't know about the  
48 legalities of, you know, trying to harvest the quota before it's

1 killed by the red tide, but another benefit we see of that sort of  
2 forecasting is that it allows fishermen to prepare ahead for the  
3 season.

4  
5 For example, if they're going to purchase quota, or they're going  
6 to lease quota, or they're trying to plan their charter trips, you  
7 know, get their folks' vacations sorted out, having a two or three-  
8 month lead time on, okay, it's going to -- It might be a really  
9 bad year for red tide, and that might allow them to modify their  
10 business planning with regard to the red tide.

11  
12 **DR. FRAZER:** Thanks, Mandy, for the answers to all those questions.  
13 That was really helpful. Thank you.

14  
15 **CHAIRMAN ANSON:** I like your comment, though, Dr. Frazer, that  
16 there might be some potential in here as these, you know, products  
17 come out, and they become refined, and people have more trust in  
18 them, the SSC, the stakeholders, et cetera, but that might be  
19 something that they could also do, too, is, you know, the quota is  
20 available, if it happens in the middle of the year for instance,  
21 they could potentially go out and harvest more than they had  
22 planned.

23  
24 That, obviously, has some impacts to their business about marketing  
25 and sales, but at least that's what I see as an opportunity for,  
26 you know, these types of products that will be coming out hopefully  
27 can do so, and so any other comments or questions from committee  
28 on this particular topic? I'm not seeing any, and no hands up  
29 virtually either. All right, and so that will take us to Item  
30 Number VI, Any Remaining Ecosystem Technical Committee  
31 Recommendations. Dr. Wang.

32  
33 **ANY REMAINING ECOSYSTEM TECHNICAL COMMITTEE RECOMMENDATIONS**

34  
35 **DR. WANG:** Thank you, Mr. Chair, and so, for this last agenda item,  
36 we're just going to talk about additional ETC recommendations, and  
37 I just wanted to use this section here to provide an update on the  
38 ecosystem status reports for the Gulf, and I don't have a  
39 presentation here, but, Bernie, maybe if you could pull up the  
40 summary, which is 4(a), and scroll to the very last paragraph.  
41 Perfect. Thank you.

42  
43 Okay, and so, at the ETC meeting, Dr. Karnauskas provided an update  
44 on the new process for developing and revising ecosystem status  
45 reports for the Gulf, and so the new process for ecosystem status  
46 reports for the Gulf is going to be an automated process.

47  
48 Previously, it was a manual process. There were a lot of

1 indicators, and it took a really long time, and so this new kind  
2 of refined and pared-down process is really working to centralize  
3 the data and create a process that can automate the production of  
4 indicators, as well as the production of ecosystem status reports  
5 themselves.

6  
7 This is a process that the Science Center has recently completed  
8 for the Caribbean, using this same method, and so the idea is to  
9 apply this same technique to the Gulf here, and so it sounds like  
10 it's going to take a little bit of lead time to develop the  
11 infrastructure to be able to do this, but, once the infrastructure  
12 is up and running, there should be regular updates to ecosystem  
13 status reports, and it sounds like annually, and so this is  
14 something that the ETC was, of course, very supportive of, and  
15 they really were enthusiastic about the modernization of the  
16 ecosystem status reports. That's all that I have, but, if folks  
17 have specific questions about the ecosystem status reports, we do  
18 have Dr. Karnauskas online. Mr. Chair.

19  
20 **CHAIRMAN ANSON:** Thank you. Any questions, or comments? I'm not  
21 seeing any, and no hands are raised virtually either, and so that  
22 leads us to Other Business. There was no other business that was  
23 brought forward at the beginning of the meeting. Is there any  
24 other business, or any business, that needs to be brought forward?  
25 I'm not seeing any. Mr. Chair, that concludes Ecosystem.

26  
27 (Whereupon, the meeting adjourned on June 4, 2025.)

28  
29 - - -  
30