

National Oceanic and Atmospheric Administration
(NOAA)
Marine Fisheries Advisory Committee
Meeting
Wednesday, November 30, 2022

The Marine Fisheries Advisory Committee met at the DoubleTree Silver Spring DC North, 8777 Georgia Avenue, Silver Spring, Maryland, at 8:30 a.m., Megan Davis, Chair, presiding.

Members Present:

Megan Davis, Ph.D., Chair; Research Professor, Aquaculture, Florida Atlantic University, Harbor Branch Oceanographic Institute

Kellie Ralston, Vice Chair; Vice President, Conservation and Public Policy, Bonefish and Tarpon Trust

Janet Coit, Assistant Administrator, National Marine Fisheries Service (ex officio member of MAFAC)

Bob Beal, Executive Director, Atlantic States Marine Fisheries Commission (ex officio member)

Sebastian Belle, Executive Director, Maine Aquaculture Association

David Donaldson, Executive Director, Gulf States Marine Fisheries Commission (ex officio member)

Thomas Fote, Retired, Recreational Fisherman*

Donna Kalez, Owner and Manager, Dana Wharf Sportfishing and Whale Watching

Sara McDonald, Ph.D., Director of Conservation, South Carolina Aquarium

Meredith Moore, Director, Fish Conservation Program at Ocean Conservancy

Stefanie Moreland, Director of Government Relations and Seafood Sustainability, Trident Seafoods

Linda Odierno, Fish and Seafood Development Specialist

Jocelyn Runnebaum, Ph.D., Fisheries Project Manager, The Nature Conservancy

Ervin "Joe" Schumacker, Marine Scientist, Quinault Department of Fisheries, Quinault Indian Nation*

Sarah Schumann, Fisherman; Owner/Principal Consultant, Shining Seas Fisheries Consulting, LLC

Patrick Sullivan, Ph.D., Professor Emeritus, Department of Natural Resources, Cornell University

Clayward Tam, Cooperative Fisheries
Research Coordinator, Pacific Islands
Fisheries Group*

Barry Thom, Executive Director, Pacific States
Marine Fisheries Commission (ex officio
member)

Matthew Upton, Attorney, United States
Seafood

Brett Veerhusen, Principal, Ocean Strategies

NOAA/NMFS Staff Participants Present:

Laura Diederick, Lead, External Affairs,
Partnerships, and Events, Office of
Communications

Russ Dunn, Senior Recreational Fisheries
Advisor

Jim Landon, Acting Deputy Assistant
Administrator of Operations*

Heidi Lovett, Alternate Designated Federal
Officer

Jennifer Lukens, Director, Office of Policy, and
Designated Federal Officer*

Gabriela McMurtry, Fishery Policy Analyst

Kate Naughten, Director, Office of
Communications

Brian Pawlak, Director, Office of Management
and Budget

Carrie Robinson, Director, Office of Habitat
Conservation

Brianna Shaughnessy, Communications
Specialist, Office of Communications*

Rick Spinrad, Ph.D., Under Secretary of
Commerce for Oceans and Atmosphere
and NOAA Administrator

Cisco Werner, Ph.D., Director, Scientific
Programs and Chief Science Advisor

Also Present (NMFS Staff and Visitors):

Richard Cody, Ph.D., Division Chief, Fisheries
Statistics Division, Office of Science and
Technology, NOAA Fisheries

Cliff Cosgrove, Saltonstall-Kennedy Program

Manager, Office of Management and
Budget, NOAA Fisheries*

Lindsey Kraatz, NOAA Fisheries Senior
Science Advisor*

Zack Klyver, Blue Planet Strategies*

Alexander Law*

Sean Morton, Management Analyst, National
Center for Coastal Ocean Science,
NOAA

Tim Sartwell, External Affairs, Office of
Communications, NOAA Fisheries

*participating via webinar

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Proceedings

(8:30 a.m.)

Opening Remarks

Chair Davis: Good morning, everyone. Let's get this morning session started. Good morning. I want to use my few minutes in the beginning to thank Sara Schumann so much for last night's dinner.

(Applause.)

Chair Davis: It was truly inspirational to have the fishers with us and to hear their backgrounds and their stories, and the way that Sara designed the evening's events. And of course, the food was spectacular. So, thank you so much for all your efforts on that.

Ms. Schumann: Thank you. And thank all of you for being there. I know it means a lot to a young fisherman who had never interacted personally with NOAA or with NOAA advisors before to be offered that platform and to share a meal with you. So, thank you for coming.

Chair Davis: Great. Great to see our virtual participants again. Good morning. So, we have a great day ahead of us and so we will move into today's events. We have some informational sessions this morning and then, into the afternoon, we'll also do another planning session. And so, we'll move forward with that and looking forward to the discussions today throughout the day.

So, without further ado, we're going to start off with the reports from the state directors in fisheries commissions, and that's going to be Bob Beal and David Donaldson and Barry Thom.

So, do you want to go in that order? Are you happy that order? Yeah?

Mr. Beal: Very happy with it, so I guess by default I am happy.

(Laughter.)

Chair Davis: Okay, Bob. Thanks for starting things off.

Reports from the State Directors Meeting and Fisheries Commissions

Mr. Beal: Thank you, Megan.

Yeah, I'm Bob Beal, executive director of the Atlantic States Marine Fisheries Commission. Before I start, Dave and Barry and I have a meeting with the Department of Interior a little bit later this morning. So, if all three of us get up and walk out, it's not some sort of, you know, state revolt thing or anything along those lines, so.

Along the East Coast, you know, there's a lot going on, obviously. And, you know, the three Atlantic Coast councils and ASMFC continue to work on our typical fishery challenges. You know, groundfish in New England. For ASMFC, it's, you know, striped bass and menhaden and horseshoe crab, believe it or not. And a few other, you know, high-profile species.

We have the Commission for the Mid-Atlantic Council that's there. You know, summer flounder, scup, black sea bass complex. And Southeast, it's the snapper-grouper complex is obviously a big -- lot of work for the South Atlantic Council.

But, you know, really on -- overlaid on top of all of our traditional fishery management challenges, there's really three drivers going on, on the East Coast right now. It's wind power, it's marine mammals, and climate change. They're kind overriding -- or, influencing everything that we do and they're the big drivers on the East Coast.

Marine mammals, really, it's Atlantic right whales. Obviously, I think folks know the story here. There's only about 340 of those animals left, unfortunately. And they're interacting with the most valuable

single-species fishery in the country, which is American Lobster.

So, what do you do? You've got the most valuable species and you got one of the most endangered -- you know, most endangered species are overlapping. And, you know, Janet knows this all too well, and she talked about a tough meeting up in Portland and those sorts of things.

So, you know, that -- those issues with lobsters -- and it's extending to other fisheries and gillnets and other things, and there's a proposed speed rule that's affecting -- potentially affecting a lot of recreational fishing along the East Coast as well.

So, you know, the marine mammal issue is really superseding a lot of the direct fishery management questions that we have for some of those species that are harvested with fixed gear. And so, you know, we're working with the councils at ASMFC to get, you know -- and, obviously, NOAA Fisheries, to figure out what the best thing to for whales is.

How do we, you know, help the whales out, reduce risk substantially, up to 90 percent reduction in risk, while still having, you know -- minimizing the impact to the fishery. They're going to be impacts to the fishery. There's no way around it. But how do we minimize those impacts?

For climate change, again, it's sort of over -- it's impacting everything that we do at ASMFC. It's pretty simple. It's, you know, where the fish are, how many fish there are, and who gets to catch those fish. It's being driven by climate change right now.

A lot of species are moving northward and eastward up the coast, and, you know, the councils -- it's posing quite a problem for the councils. The species are crossing the council's jurisdictions and they're -- you know, they're working together to try to figure out, how do we share responsibility, or how do we handle this species that managed by the Mid-

Atlantic Council?

However, the majority of the harvest happens to be in southern New England right now, which is -- those states are not represented on the Mid-Atlantic Council. They are represented on ASMFC and we work with them on joint management and other things. But it is a pretty complex situation and we're trying to work through that.

The three councils, ASMFC, and NOAA Fisheries have all engaged in what we call scenario planning for climate change. What this is doing -- it's about a year-long process and we've got another four months or so to go. But we're looking at, you know, different climate change scenarios, and how is this going to affect governance.

And how do the three councils and ASMFC with our unique management, how do we all kind of get along and figure out how to manage these species better as they're crossing these boundaries? There's examples of fish moving in-shore and off shore, sort of into state jurisdiction and out of state jurisdiction up the coast, as I mentioned earlier.

And, you know, one species, Atlantic cobia, the South Atlantic Council used to manage cobia. But the bulk of that harvest is actually moving into state waters and out of the range of the South Atlantic Council. We've transferred that authority management over to ASMFC solely and, you know, the Commission now manages it rather than the South Atlantic Council.

So, we're working through a lot of these really difficult governance questions, but we don't really have a sort of long-term master plan on how to figure this out. So, you know, we're working through that, through the scenario planning. NOAA Fisheries is also looking at some policy and governance questions about how to deal with these interactions between the council and ASMFC. So, those two efforts are going on, sort of, in parallel tracks.

And then, the third topic that I mentioned that's, you know, overriding everything else is offshore wind energy and offshore energy development. I think it's about 2.3 million acres of ocean bottom that have been leased along the East Coast. The goal, as everyone knows, I think, is nationwide 30 gigawatts, that's 30 billion watts, by 2030 is the goal on the offshore wind development.

You know, the big areas that -- the fisheries that we manage at ASMFC and at the councils are -- there's a lot of fishermen and fishing activities that are going to be displaced from those areas. And what do we do about that, you know? Is there compensation mitigation for those folks that have been moved out of those areas?

There's a lot of legislative talk on Capitol Hill about how to handle that and, you know, what should the developers pay, how do these folks get compensated, who gets what, and all those really difficult questions.

So, those are the three overriding things on top of our normal traditional, kind of, fishery management challenges we have on the East Coast. And happy to answer questions now or at the end. However you want to do it.

Chair Davis: Thank you for that report, Bob. We can go ahead and have discussion and questions. Stefanie?

Ms. Moreland: Thank you. As the governance changed out of South Council to the Commission, what occurred in terms of the science sharing/knowledge sharing? And is that well-resourced for the -- did you have enough information to support that transfer to at least not have controversy regarding the assessment and basic science?

Mr. Beal: Yeah, yeah. Thanks for that question. You know, the science is pretty good on Atlantic cobia. You know, there was a clear -- you know, the stock

assessment on all landings information showed clearly that that population was moving sort of up the beach and in shore. So, there wasn't a whole lot of controversy. It made sense to move it out of the federal management system into the state management system.

Moving forward, there is a questions of, sort of, who gets to conduct the science from here on out and, you know, the state surveys will continue and the federal government -- the SEAMAP survey, Southeast Area Monitoring and Assessment Program, which is the Southeast Data Collection Program, that will continue as well.

But, you know, there is a question on who kind of turns the crank on all that data. The science center in the southeast has indicated they should be able to do it. But, you know, the southeast science center, like all the other science centers and all of our state scientists are kind of overloaded.

So, we're hoping that is the case, the southeast science center continues to have, you know, the capacity to manage -- or, to assess cobia and help us out with the science part of it. So, you know, the science showed we needed to make the changes clear. Going forward, we have to keep cooperating and collaborating to make sure we get that science - - keep it up to date.

Chair Davis: Thank you, Stefanie and Bob. Meredith?

Ms. Moore: It's weird to talk here when you're just right there.

(Laughter.)

Ms. Moore: So, with climate change on the East Coast, it sounds like you are all engaging really heavily in this sort of stock-shifting governance issues. And I know East Coast scenario planning is also taking a look at some of the productivity issues as well. And I was wondering if you're seeing the

productivity changes currently as an issue you're having to take on.

I know, I think it's -- I'm going to get the species wrong maybe but, black sea bass is doing great, I think, whereas some of the other ones aren't, and I know you're all having to handle that. So, I was just wondering how productivity changes are showing up for you-all.

Mr. Beal: Yeah. Great question. It's kind of across the board. Black sea bass, the range is expanding. Some species, the range is shifting, where the whole stock moves in unit. Some of them, just the northern boundary moves up. And as sea bass have -- black sea bass moved into southern New England, they found a lot of habitat that they really loved.

And Janet knows this from being from Rhode Island. You know, there's a ton of black sea bass of Rhode Island and Massachusetts and, you know, sort of south of the Cape right now. So, you know, the -- but the hard part is getting the science and the stock assessment to catch up with that additional productivity because one of the big problems, or issues, that we have at ASMFC is allocation.

So, as these stocks move around, allocations in many of the ASMFC plans are based on historic landings and historic distribution of those animals. And as they move up the coast, history's getting kind of farther and farther and farther behind us. So, what do we do and how do we allocate fish based on where they are now and where the landings are occurring?

And it's, you know -- kind of makes sense. Well, just give it to the states where the fish are off their -- you know, off their beaches. That's easy. But you've got infrastructure and other things on-shore that depend on that.

And, you know, we see some species, like striped bass, obviously, one of the flagship species at

ASMFC, that we've been in this low recruitment stanza, is what we're calling it, for about 15 years. And is that due to climate change or is that just kind of, you know, bad conditions from across the suite of years?

And, you know, rainfall in the spring and all these other things influence *Diadema* specie's spawning success, and so we're -- it's everywhere, I guess, is the answer, you know? There's some good news, there's some bad news, and there's some news that we kind of haven't really figured out yet what's going on.

Ms. Moore: Thank you.

Chair Davis: Thank you, Meredith and Bob. And, Bob, thank you for your overview. We can still take questions, but we'll move on to David right now. Thanks, David.

Mr. Donaldson: Thank you, Madame Chair. I'm Dave Donaldson. I'm the executive director of the Gulf States Marine Fisheries Commission. Unlike the Atlantic States, the Gulf Commission does not have regulatory authority, and that might be part of the reason why I have more hair than Bob.

(Laughter.)

Mr. Beal: That's fair.

Mr. Donaldson: But because of that, we don't deal with as many management issues as the Atlantic do and we focus more on data collection. We've got several long-term cooperative data programs that we've been funding since the early '80s.

Gulf FIN, which is our fishery dependent where we're talking with commercial and recreational fisherman, getting landings and catch information location.

SEAMAP, which Bob referred to which our fisher-dependent, where research vessels from the -- from

NOAA Fisheries and the states go out and get distribution and relative abundance.

And then, our Interjurisdictional Fisheries Program where we're looking at species that cross state boundaries, mainly in state waters: oysters, black drum, red drum, shrimp, things along those lines.

And then, one of our newer programs is SEFHIER, which is an electronic reporting program that was initiated by the Gulf Council and is run by the -- by NOAA Fisheries in the southeast region. But we're providing validation data for that. That just started. And have some long-term funding issues, but we're working through that.

Aquaculture is a big issue in the Gulf of Mexico. The three commissions have been working with the Office of Aquaculture and we provide funding. In the discussion yesterday, there was a lot of talk about communication and dispelling some of the myths about aquaculture, and I think that's the key to growing aquaculture in the Gulf.

We've been working with oysters and have had a fair amount of success with oysters -- oyster aquaculture through our regional pilot program. We're delving into the fin fish. As I mentioned yesterday, we've got -- there's two programs -- one off Pensacola, one off Sarasota -- that have plans to put -- to grow fin fish in federal waters, but just waiting for the -- waiting for those permits.

The Gulf of Mexico is a wonderful place to live. Unfortunately, we have a fair share and maybe more of our fair share of hurricanes and natural disasters, freshwater diversion that have -- has caused some havoc in recent years.

And always have hurricanes, so disaster funding is a high priority in the Gulf and trying to streamline that process, so we can get the funds to the folks that need it sooner than later. So, we've been working with Janet and Sam, and trying to figure out a way to streamline that process, so we can get

-- to get that money out to the folks that need it.

And then, of course, red snapper, I gave an update at the National State Directors meeting and I referred to red snapper as the specific that would not be -- will not be named; little Harry Potter reference.

(Laughter.)

Mr. Donaldson: And, you know, I thought everybody knew what the heck red snapper was.

(Laughter.)

Mr. Donaldson: Well, apparently, there were several people like, what? What is he talking about?

Participant: How nice for them.

Mr. Donaldson: Yeah.

(Laughter.)

Mr. Donaldson: And when I found that out, there was -- the state director from New Hampshire, I told her, I said, well, you're very lucky. But we obviously continue to work with that, working with the Office of Science and Technology to integrate the state survey data with MRIP, trying to come up with a calibration factor, so we have a current -- a common currency, because the ultimate goal is to use -- utilize that data in assessments for that species.

For those that you don't know -- that don't know, the states are managing the landings for red snapper with a variety of different state surveys and integrating that data with the long term MRIP data has caused some issues, and we're working on trying to do that, so.

With that, I'll take any questions.

Chair Davis: Thank you, David, for that review. Appreciate it. So, we have Sara and then Kellie and

then Meredith.

Ms. McDonald: Thanks for the update. Just curious. Do you know what fin fish species they're talking about for aquaculture?

Mr. Donaldson: So, the project off Sarasota, they're looking at almaco jack. In Pensacola, it's -- they still haven't decided completely, but red drum is one of their main species. And there was another one and I can't recall what it is off the top of my head. But they're all -- the projects all require that we use native species. We're not bringing in non-natives.

Vice Chair Ralston: So, two questions. One follow-up to Sara's. Have they submitted an application yet on the Pensacola project?

Mr. Donaldson: I know the Sarasota, they've --

Vice Chair Ralston: Yeah. I know where that one is. I just hadn't seen anything on the Pensacola.

Mr. Donaldson: I'm not sure they've actually got to submitting the process yet --

Vice Chair Ralston: Okay.

Mr. Donaldson: -- because they're -- they actually had to move the site initially. The initial site was in - - had some issues with the DoD and I'm not sure they're at -- I know they're getting ready to, but I don't think they've actually submitted it yet.

Vice Chair Ralston: Okay. And then, shoot, second question. On disaster funding, again, what's the timeline for, you know, potential changes to that process. And, Janet, maybe that's you, too. Sorry.

Ms. Coit: Yeah.

Mr. Donaldson: Well, there is -- Senator Wicker from Mississippi has introduced some legislation to help streamline that. And I'm not sure what the likelihood of that is going to be -- it's been introduced, but if it's going to be reintroduced and

passed. Talking with their staff, they seem positive that it has a chance, but that still remains to be seen.

And then, the issues that talk with Janet about and trying to look at different ways to -- different funding streams and different ways to get that money out quicker is -- I'll let you handle that.

Ms. Coit: Just briefly. Yeah, I think there is interest in the House and Senate, and ultimately we may get legislation enacted. Meredith and I were talking yesterday about the role of OMB. We're trying administration-wide, with great support from the Secretary, to improve the process, which goes to OMB for reviews three separate times. Each of which, it gets scrutinized and questioned and delayed. We have declarations sitting there right now. So, that is ongoing and been a big learning experience filled with frustration.

The third is what Dave mentioned is some discussions about, is there another pot of funding or another way to go on this because, as you know, the federal fishery disaster is its own sort of ad hoc thing with appropriations from time to time. And so, there's been talk about USDA programs and potentially, you know, just shifting it either out of NOAA entirely, or at least a different route that isn't so tortured.

Chair Davis: Thank you for those questions. And Meredith and then we'll have Tom and then Brett.

Ms. Moore: So, about red -- I'm just kidding.

(Laughter.)

Ms. Moore: I would not do that to you. We're fun. I was wondering if we could talk a little bit more about the issues with the SEFHIER program. And I know that it's certainly a funding issue for doing the dockside intercepts. And I know, also, there have been some problems or, like, I think just less receptivity to dockside intercepts across the Gulf in

some ways.

I'm just wondering if you could talk a little bit more about how that's going. It's a concern of mine if that program sort of falls apart a little bit because of the lack of validation and that sort of thing. So, just wondering if you could expand a bit on your comments there. Thank you.

Mr. Donaldson: So, it is a funding issue. When we first started with -- the validation portion was about a million dollars. Congress allocated about a million dollars. That's essentially been cut in half. So, that limits the state's ability to go out and validate the landings information.

We're working with Richard's shop and MRIP folks, seeing if we can't utilize some of the existing surveys through MRIP with -- in the for hire sector and trying to use that to supplement the decrease in funding.

Initially, I was concerned that we were not going to be able to continue it next year. As of right now, that doesn't seem to be the case. We are going to do some form of validation in 2023. And as you pointed out, it's -- without that, it jeopardizes the program because, if you can't validate that information, stock assessors are very hesitant to use it in assessment. So, it's a high priority with the commission as well as the regional office, so.

Ms. Moore: Thank you.

Chair Davis: Thank you, Meredith and David. Tom?

Mr. Fote: Yeah. Well, I did have to ask any questions on CARES Act because I've spent probably 25 meetings with the executive because he listened how we distributed the cash funding. We found out that we left a lot of -- the states left a lot of money on the table because of the restrictions in the 35 percent.

Whereas, in the Department of Agriculture, when

they basically gave out the CARES funds because of the less financial requirements that they had, that our agriculture people were able to get more grants than we were and they were timely done. So, I wonder if you had the same experience in the Gulf.

Mr. Donaldson: We actually have distributed the majority of our money to -- and again, we were only dealing with four states: Texas through Alabama. Bob was lucky enough to take Florida off our hands. Again, part of the reason why he -- I've got more hair than he does.

But for the -- for both CARES 1 and 2, all our states have spent the money, with the exception of Texas. Texas is in the process of utilizing the rest of the money, doing some marketing and some oyster restoration. But there were concerns from the states, that high -- the high 35-percent threshold. And if it had been lower, we probably could've distributed money to more folks. But we did -- we were able to get the majority of the money spent.

Chair Davis: Okay. Thank you, Tom, David. Brett? And that will be the last comment and then we'll move onto Barry. Thanks.

Mr. Veerhusen: Yeah, hi, David. Curious on what was the -- amber jack, and what was the second species that's potentially going to be farmed?

Mr. Donaldson: Red drum.

Mr. Veerhusen: Red drum?

Mr. Donaldson: And it was almaco jack, not amber jack.

Mr. Veerhusen: Oh, I'm sorry. I'm always just kind of fascinated by how different regions maybe do outreach better or worse, to learn from other practices. And what has been the role of the Commission in facilitating outreach among stakeholders, recreational/commercial fisherman, and some of the potential new aquaculture projects?

And if you could describe maybe some successes or ways to improve for other regions to learn from.

Mr. Donaldson: So, we haven't engaged in directed outreach specifically, but we've done it through the various programs or projects that we've funded, because there's two -- there's an oyster consortium that's focusing on eastern oyster and trying to develop that, and then the regional pilots that look at -- it can address oyster and other shellfish, but also fin fish.

But several of the projects that we fund, we funded a project in the panhandle of Florida where we -- to a local community college that provided a curriculum that essentially taught oystermen, or taught people interested in getting into aquaculture, on how to set up a farm, how to run it, how to operate it, things along those lines.

So, we've been involved in discussions with the fishing community through the Gulf Council. At the recent Gulf Council meeting, I met with folks with the Shareholders Alliance and other commercial fisherman about -- just talking about the state of aquaculture in the Gulf and their concerns.

And so, we don't have a specific program for outreach, but we've been involved in those discussions as they've come up.

Chair Davis: Thank you, Brett. Thank you, Davis, for your overview update. And we'll move onto Barry. Thank you.

Mr. Thom: Yeah. Good morning. Barry Thom, executive director, Pacific States Marine Fisheries Commission. Just keeping on the hair analogy, mine's sort of a mix between Dave and Bob, so I have hair but it's gray. And I will -- for the record, I did get the gray hair working at NOAA Fisheries, not at the Commission.

(Laughter.)

Mr. Thom: And Dave has promised that my hair's going to turn back to brown after I work for the Commissioner for a little while, so.

So, a few things. One, just as Dave mentioned, similar base data programs, sort of the bread and butter of the commission work. We have PacFIN on the West Coast, AKFIN in Alaska, and RecFIN as well. So, keeping those base data collection programs going is a key priority.

Our marine mammal work on the West Coast, two high-priority areas. One focused on gear entanglements in the Dungeness crab fishery and getting those fisheries permitted, and moving forward and preventing entanglements there. Those permits are drafted and will be moving into looking for funding and moving into the NEPA work associated with those permits in the near future.

And then, the other piece is the predator-prey interactions with harbor seals and sea lions on salmon, mostly in the Columbia and Puget Sound. Big priority for Oregon and Washington moving forward there as well.

We're also dealing with offshore wind and I think the Commission's trying to find its place in sort of how to interact on offshore wind, whether that's sort of in the planning design piece or on the mitigation piece moving forward, so a lot of discussions going on there with offshore wind and the engagement there.

And then so, CARES Act disaster assistance. Similar to Dave, a lot of work going on. Since I've been at the Commission, a big priority in trying to move the money out the door in CARES Act. So, we still have several states that we're in the process of distributing funds.

The actual applications period didn't even close until the end of October for Alaska, Washington, and Oregon, so those are going to be into the spring as well. The good news is California checks will be

going out probably at the end of this week, hopefully, so that's a good thing.

Hawaii is the end of the year and we've got a -- but those other three states and a couple of the territories, CNMI and American Samoa, will be in the spring of '23 moving forward. We also have a whole series of new disasters related to mostly Alaska but also Washington and some of the coastal trials as well that we're moving through as well. So, similar issues in terms of moving that money as fast as we can and getting that moved forward.

We have staffed up. We've brought on four new people just to process CARES Act applications moving forward, to move the Alaska piece especially.

The couple other pieces. Electronic monitoring on the West Coast, keeping that moving forward, making that successful both West Coast and Alaska. So, a lot of work going on there just to get that through the council process, making sure we've got the right funding streams set up moving forward there.

And then, couple just sort of looking at the year ahead. Couple of areas: one, just I am new at the Commission and just working through internally strategic planning. So, some good input in terms of how we move forward as a commission and just reevaluating where we are, taking a good hard look at the activities we're engaged in, making sure we're on the right path.

Infrastructure funds: how the states want to interact on infrastructure funds. So, we are an applicant for a lot of the infrastructure funds, but the states are looking to us given our capacity for both staffing and resources, given a lot of the bipartisan infrastructure. A lot of that was focused on habitat and salmon on the West Coast and the states coming to us to help with how to administer some of those funds as fiscal agent.

North Pacific ecosystem conditions. So, that's sort of on the -- you know, the climate change. How we can actually help the states, recognizing the importance of the changes in the North Pacific and Bering Sea and other areas, and how that's affecting both the inland areas as well and sort of the salmon resource and other resources up on the West Coast. And I think that is my entire list.

Chair Davis: Thank you very much, Barry. And, Brett?

Mr. Veerhusen: Barry, I don't know if this was prior to your time, but I'd be remiss to not thank the Commission for changing the requirement for -- well, the Commission didn't change the requirements, but there was an effort to change requirements and the Commission is complying with that and making sure that COVID disaster relief money gets distributed to California and Oregon resident fisherman who have most of their operation in Alaska, particularly Bristol Bay.

In the first round of CARES Act money, they did not qualify as residents whose operations were based in another state, but in the second around did qualify. I know that impacted hundreds of fishermen and I'd just like to thank the Commission for your work and efforts there.

Chair Davis: Thank you, Brett. We'll have Donna and then Janet.

Ms. Kalez: Thank you, Barry, for your comments and your report. I would just add that the CARES Act 2 seemed very complicated to a lot of people this time and a lot of people filled the information out wrong. And so, I think that you should be commended for reaching out to all those people and extending the deadline.

It's really hard to get a hold of fishermen and have them redo their paperwork or fix it. So, I do know that the money is coming at the end of the year, so thank you so much for that update.

Chair Davis: Thank you, Donna.

Ms. Coit: This is a question for all three of you. Barry, I'll start with you since you just finished. And, Bob and Dave, you have a little more time to think. The commissions are a really important partner and you have some plusses that I think NOAA doesn't have in terms of your relationships and your reputation. Are there things that you would take on that you know are really important to mission success in terms of sustainability and supporting fishing and ecosystem health? And are there things that you really want to jettison?

Mr. Thom: Thank, Madame Chair. Maybe people might want to jettison me, but other than that -- yeah. So, I'll take that insofar and that's, like I've mentioned -- like, for us going through some strategic planning. And I've just, you know -- we did a lot of things when I was in -- fishers, we did a lot of things on the West Coast and we interact on a lot of topics.

But when you get to the Commission, I could probably list, you know, at least several hundred individual projects that we do as a commission. And so, trying to figure out, like, what common themes are, and that's sort of the analysis I think we're going through to see if there is anything we'd want to jettison.

But most of the work that I see really has a core sort of mission in terms of data management, data collection, and some of those really core pieces. So, I think that's really under consideration right now.

Looking forward, I think, you know -- and even just yesterday I was thinking about it. From the community engagement, I think there's some possibilities there where we probably -- we have the flexibility and terms of staffing, at least on the West Coast. The way we run the Pacific States Commission, we have a lot of staff.

We have the ability to expand staffing much quicker

than NOAA Fisheries does. So, in terms of community engagement and people in those areas, we probably have a better ability if the funding was available to do some of that kind of work as well.

I don't know on the communications piece. I've noticed within Pacific States, we -- our communication apparatus is lacking, I would guess I would say. Very limited. We don't have any communication staff at all within the Commission, so that's something I'm going to be looking at and how we can actually do a better job of getting messages out and things like that in outreach and communications moving forward as well.

So, there's a couple areas, I think, in terms of community engagement, communications, and staffing. Some of those pieces.

Mr. Beal: Dave and I negotiated. I guess I'm next. You know, at ASMFC, we do a lot of things. We've got a cooperative agreement with NOAA Fisheries and there's all sorts of odd jobs in there. And I think that arrangement is going very well, I think, for both sides. And there are a lot of things that we can do as far as money movement and other things a lot quicker than the federal government can, and I think that works out really well.

I don't know. Seven or eight years ago, five or six years ago, you know, the East Coast states, through ASMFC, took over some of the data collection for MRIP, all the site intercept work, and I think that that has been a great result. The states have been, you know, a lot closer to their fisherman and they know the ports, they know the -- you know, where all the boats are coming back. And I think that's been a very effective program in getting, frankly, more data for the same amount or less money, so that's the ideal.

And I think, you know, there are other examples. There some difficulties with biological sampling in the northeast right now, and maybe the states can help out with that. You know, there's some funding

shortfalls, getting the ages and lengths and other things from commercial fisheries at the ports.

So, you know, I think we'd be interested in talking about that, if there is a way to improve that, because I think those shortfalls in biological sampling go into effect, stock assessments for, you know, species. Mid-Atlantic Council, New England Council, and at ASMFC. So, it's going to be a pretty significant impact. So, if there's a way the Commission can help out there, we're happy to do that.

The one thing that our commissioners have kind of wanted to stay away from is allocating funds to individual businesses or harvesters. You know, through the CARES Act, that was done through the states. There's this conversation about compensation and mitigation for offshore wind activities and, you know, our commissioners are saying, yeah, we don't think that's really a role for the Commission or the Commission staff.

Again, the states know their fishing communities better than we do and, you know, all the stakeholders, and they feel that they can do a better job of deciding how much -- you know, what a specific check is for a specific business. So, that's the one thing that we've tried to shy away from.

You know, we can move a lot of money and we're happy to do that, you know, if there's a role in compensation for wind power where someone else decides how much individuals receive and we're the vehicle that moves the money. We're happy to do that. You know, all of our states are saying, you know, keep the Commission out of the decisions on who gets how much.

But, you know, again, back to that original cooperative agreement. I think we do a lot of different odd jobs, I call them, with the federal government and I think it's a great arrangement. We can move a lot of money and do things very efficiently and we can, you know -- since we've

been doing more and more, our overhead rate, we've been able to reduce that over time and get more money out to what it's supposed to be doing: survey work or CARES Act or whatever it is. You know, we're trying to reduce overhead and move money as efficiently as possible.

Mr. Donaldson: And similar to Bob, you know, we have a cooperative agreement with y'all as well, and I think we were probably the last of the three commissions to do that, and that's allowed us to do a variety of different things.

In terms of program, we don't really have any programs that we would stop doing because the ones that didn't fit within the Commission, we've already stopped doing those things, so. But as Bob and Barry mentioned, we have the ability to move money out a lot faster.

Disaster money, we've done if it affects the Gulf of Mexico more than three -- two or three states. If it's one state, we usually don't get involved with that. But with the -- when it's affecting multiple states, we're able to get that money out and work with the states and NOAA Fisheries.

The only concern is, out of the three commissions, I think we have the smallest staff. And we're getting to the point where -- and we're glad to take on new initiatives. We just worked with the NRDA folks on doing a -- collecting shrimp effort for in-shore -- for the in-shore shrimp fishery and tacked that onto an existing agreement that we've had with Jamie Reinhardt and his folks.

But we're going to get to a point where we're going to have to hire additional financial folks, personnel folks. And like Bob, we're trying to minimize the admin because we want to actually get the money out the door and do work on the ground.

But as we've added these tasks, it's -- and we're not at that point yet, but that's just something that's going to -- eventually, if we take on enough tasks,

we're going to have to hire additional staff to help support that. And we're willing to do that. It's something that I think is a critical role of the Commission to help with the states and NOAA Fisheries.

Chair Davis: Thank you, Janet, for that question and for the responses from the directors. I also want to just thank you, the three of you, Bob, David, and Barry, so much for coming.

We're going to have to -- I know, Tom. We're going to have to actually wrap up. We're ten minutes over, so you -- okay. Make your comments really super-quick, both Joe and Tom, okay?

Mr. Schumacker: I'll go ahead and start, then. Barry, this is directed to you. First of all, you know, hey, welcome to the position. Glad to have you on here. Pacific States has somewhat of a unique relationship out here not only with the states but, obviously, with all the tribes and the funneling funds with -- to the tribes as best you can there.

You heard yesterday from Zach Penney in the senior advisor role for tribal affairs there to NOAA that we have some severe capacity issues at the tribes. And you even noted earlier that the states themselves are looking for fiscal assistant in working with these monies.

Can you potentially talk a little bit about plans to help the tribes out in these needs, because we find ourselves in the very awkward position of having to actually refuse funds or find ourselves up against deadlines because we just simply don't have the capacity to go after them effectively. And it's been a real issue that I've heard -- across tribal communities out here. Thank you.

Mr. Thom: Yeah. Thanks, Madame Chair. Thanks, Joe. Good to see you on the screen. So, in terms of the tribal capacity, the only piece I probably can really identify is within each of the disaster allocations. There is an allowance for the

administrative costs associated with the tribe to implement those funds in there, so that is actually a good thing that there is actually overhead available within the disaster allocations.

But other than that, I can't identify any, you know - - given that we are dealing with pass-through funds that mostly come down through NOAA Fisheries, it really is sort of -- we're dealing with the funds that we actually get in hand for a lot of those things, unfortunately. But recognizing that that tribal capacity piece is a key piece.

And I'll just highlight that. I mean, when we're actually administering these funds, Pacific States ends up taking on a lot of the burden of how to administer a lot of the disaster funds and basically providing aid to the tribes to help them through that process, and make sure that the funds can get out the door as quickly as possible.

Chair Davis: Thank you, Joe and Barry. Tom, do you have a short comment or question?

Mr. Fote: Short question. I'm personally with Atlantic States because I've been commissioner since 1990. And the way we operated in funding was basically collecting dues from the states. And also, before the Atlantic Coast Conservation Act, we used to get money -- a lot of our money under the U.S. Fish and Wildlife Service to basically supplement our programs.

I wonder if you collect dues because that basic part of the dues, when the states pay money, they feel like they're really a part of the system, because we are the 15 members of the compact. Is that the same for the Gulf and the West?

Mr. Donaldson: Yeah. We do pay dues in the Gulf of Mexico. It's a little different than Bob and I think it's based on some formula. Each state just pays a straight amount and that's increased over the years as necessary. But we do play -- they do pay dues.

Chair Davis: Thank you, Tom. Thank you, David. Once again, thank you, Bob, David, and Barry, for your updates. We'll make sure we put more time on the agenda next time, because this is a great interaction and it is -- it affects everybody in the fishery sector, so it's great to have your updates.

So, we're going to move onto the budget outlook, and I'd like to introduce Brian Pawlak, who's the director of Office of Management and Budget. And I believe you have some slides to go along with that. Is that right, Brian? There they are. Okay. Thank you for being here.

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Mr. Pawlak: Oh, there it goes. Okay. There was a red button, but the wrong red button, so. All right. Let me make sure I can drive here, too, before we jump in. Yep, we can drive. Good. Okay. All right.

All right. Well, thank you for the invitation. I'm glad to be here. I think it's been quite a few years since I've addressed MAFAC. A number of you I know work within other capacities, particularly with commission directors there, so good to see them.

Paul Doremus has been here probably more frequently than I have been in giving the budget update, and work directly for him and hand-in-glove with the budget. But glad to be able to come and give the update and outlook myself here. And glad to take questions particularly as to the budget process and how it works in the federal government.

My understanding is there's some maybe brand new members to MAFAC. I think the gentlemen leaving the room are pretty darn familiar with the federal budget process, but many people might not be. I'm glad to hopefully highlight some of that here as we go along as well.

So, first place to start the discussion, just where are

we in the federal budget process, because that alone is often the confusing part. Or as you start talking about the budget, understanding where you are in the process is really important to understanding what you're talking about.

So, this graphic here, it's one I use kind of in every presentation I almost give, so some people might've seen it a hundred times. Some people, maybe the first time. But it outlines just where we are calendar year-wise. As you can see here, we're closing out calendar year 2022 the start of December here shortly.

So, the first chevron, first bar across the top there, is FY '22. Obviously, that fiscal year is closed. We're done with FY '22. We still have some carryover funds that we're executing and getting out the door, planned funding that is being executed this first quarter. And then, following into the next year.

So, the thing here with the budget, we're always working in pretty much a four-year budget cycle. Any given point in the calendar, we're focusing on thinking about four different budgets. So, just upfront before the meeting started, some people were talking about, oh, we need to have some planning discussions.

And, you know, first thing I asked them is, well, planning about what? This current year? Next year? Or even further out years? You know, it really makes a difference of what kind of discussion you have depending on what budget cycle you're talking about.

So, we're in here, the second bar across the -- second line there, FY '23, FY 2023. We're presently in a CR, continuing resolution. And continuing resolutions, I'll talk about those in a little bit more detail in a second. Basically, it allows us to continue to operate, the federal government, at a budget level that's usually set at the level of enacted in the prior year.

So, whatever we had in FY '22, the assumption is you get that level of funding in '23 and you're given a rate of spending as long as the CRs go on. So, it usually doesn't restrict us too much, to be honest. It's a frustrating thing because you don't know the amount of money coming in for the full year.

But within the first quarter and assuming we get out of the CRs in the first quarter, we're quite familiar with dealing with that and that's -- we're able to operate, we're still able to move some money out the door in grants, depending on what the source of funding is. But we're waiting for '23 and House and Senate to decide on '23, and I'll walk through where we are and some of that in more detail here as we go through

FY '24 planning, which -- the stage now is we're in the administrative cycle, or executive branch cycle, of determining FY '24. Our budget process is obviously built ground up NOAA Fisheries to NOAA to Department of Commerce to OMB. So, OMB is presently reviewing and determining what our FY 2024 ask for the Administration might be to Congress.

We expect to hear back, could be any day now, from OMB on what our funding levels would be, for which we presented to then Congress and present to everyone usually winter. Usually January, end of February. Years past, that has been pushed back several months when we've barely been out of cycle for quite a few years. But the idea is usually it's the first week of February that that gets announced. So, we're in the place of listening. We're waiting to hear back from OMB where we are in '24.

FY '25, we've started planning for that cycle. It seems like it's way far out there. We don't even have '23 yet. We're not completely done spending all of '22. But FY '25 planning really start probably March/April. We start thinking about FY '25 that early. Not maybe a whole lot of pen to paper yet that early, but we'd start thinking big strategies, big

ideas of where we're going to be putting budget priorities in place for kind of the present budget cycle to start all over again.

And I'll pause right here just to see if there's any questions on kind of this cycle and that piece before I just dive into some of the other pieces, because I know this is the place where it can draw confusion or questions. It is a complex process and it overlaps. And to see if there's any input that anyone has there, if that's okay with the Chair.

Ms. Coit: Brian, what's your crystal ball on whether an Appropriations bill for Commerce, Justice, State will be enacted before the new Congress?

Mr. Pawlak: Well, it is just a crystal ball, so I can make any guess and I could be right. So, I could be perfectly right or way wrong. From what I hear, people are pretty -- they're working on it pretty heavily right now. I mean, the questions from the Hill, they're actively working and eager to pass, so I would think potentially so. I would think potentially so, yeah.

It's not, you know -- this kind of goes on rumor mill. Past years, no way. You get the message, no way, that's not going to happen. The Appropriations Committee and staff seem to be heavily and eagerly working right now, so.

I don't think it'll be long, drawn out. I don't know if it will be January, but we'll -- I don't think it'll be long, drawn out.

All right. With no specific questions on kind of processing timing there, let me jump onto kind of just outlook and where we stand in budget trends.

The phraseology we kind of been using within NOAA Fisheries for our planning and our discussions is really kind of depicted in this graphic here, in that what we're seeing over the different years in a number of years here with that red line -- that's the adjusted budget for inflation -- is really a flat

budget scenario for NOAA Fisheries.

I mean, you can go back ten years there, you kind of see that line is pretty stagnant. Good news here, toward the end of the years here, we're starting to see increases, we're starting to see growth, we're starting to see opportunity for new things and address some of our core mission functions.

I know many of you from smaller organizations and the state directors -- commission directors who just left, that last blip is a, you know, \$40 million increase, even with deflated dollars. And so, you know, folks were probably choking on that amount of number saying, what? That's a flat budget? \$40 million increase? You got to be kidding me.

But what it really reflects is years of not receiving ATBs, or adjustments to base, cost of living increases, different terminology for those. And so, really, these last couple years, we've started to see that and we're starting to see a little tick-up in program funding.

Attend to our, again, adjustments to base, cost of living, however you want to phrase those. And those are really important because years, we did not get that, which resulted in that flat budget cycle.

So, even though we've got this 40 million plus-up -- which we're excited about, glad to spend, some focused direction in there that's going to help us a little bit with our offshore wind issues and other areas, and in our stock assessment.

That last year's little tick-up in FY '22 here, that increase, you know, of that roughly 40 million, you know, slightly more than half of that is just adjustments to base. So, that's the deal with our administrative costs, our IT costs, our IT security, is try to -- covering our growing facilities needs cost, our growing cost of labor. All the things everyone in the, you know -- the world is dealing with. Increased fuel cost, rent costs, all of that. So, it's a

nice plus-up. For an organization this big, it gets spread pretty thin pretty quick.

So, our leadership council discussions that we just had, you know, two weeks ago, maybe Janet referenced -- we had a leadership council meeting out in Hawaii -- really trying to focus on how we do our planning and how we determine our priorities with not a whole lot of extra room, even though we're a really big agency.

We are well funded. You know, we're up to a billion dollars. A lot of the funding we have is directed by Congress. The disaster funding and supplemental funding you've just kind of heard the commission directors talking about, that's money that we push out the door. It's not really available to our operations piece. It's important resources, but it doesn't necessarily help us with our core program pieces, so.

So, we were just talking about continuing resolutions. What this slide is just depicting is we're used to working this environment. This is the list of where we stand with continuing resolutions over -- I got to put my glasses on to see how many years back it goes. Back since 1998, it looks. So, even, you know, the past 20 years.

We're used to dealing with continuing resolutions. It's part of the process. How long we stay in that process is -- can impact how effective we are in executing and obligating, but we do have the ability to move out and do what we would do in a, quote, unquote, standard year under a CR.

And we've been getting more effective at putting money out under CRs early in the year rather than waiting till a CR's over. I mean, we used to -- you know, probably when I first stepped in this job, we used to wait till April/May before we could execute some of our grants and contracts because we didn't know our budget.

We've been able to plan better, shift that back to

first quarter and second quarter planning even under a CR. We can't do what's, quote, unquote, called New Starts, so brand new programs, things that are not envisioned as part of our core programs prior to a CR. But most of our core functioning activity we can do under a CR.

So, where we sit with FY '23, again, FY '23's a little long in the tooth because we're already working on FY '24. But I just -- I put this up here as our congressional budget justifications become our public characterization of what the Administration's priorities are in any given budget year.

So, again, hopefully, February you'll see this information for FY '24 out there. But I referenced this here because it's a place to go if folks want to know where we stand, how we're characterizing our priorities, what the priorities are. And it's usually just primarily described as new money, money above base. So, when you go to look at it, that is where the focus is of the Administration.

A lot of good information in these places to go find. It's a place if folks -- I think Janet said some folks were asking questions just yesterday. You know, how do you advocate for NOAA Fisheries' budget? How do you maybe even express interest to the Hill or others that you need more or you want more than even the Administration or NOAA has been able to ask? Because, you know, we have a process that I just described. We ask and that gets considered and reviewed all the way through OMB.

So, this is a place to go see what -- how the priorities are characterized, how they're being binned. How they're being characterized, so that you can maybe align your characterization interests to the budget.

And in this, you'll see what the focus is and you'll get to see the dollar amounts. And I think what really we're somewhat constrained by is this is the President's Budget. This is what the Agency, this is what our FNC -- sorry, our science centers, regional

directors, they have to stick to these talking points.

This is the requirement. This is the expectation of the Administration of what we need, all the priorities across the federal government are considered, and we can't ask for more because it's a risk of my employment if I ask for more beyond what's in the President's Budget here.

But it does give you the place to look for how we characterize and why we're putting things together. But what we can do here, and based off of what might be presented in the President's Budget, if we get a question from Congress, what would it take to do X, Y, Z? We can answer that.

You know, if they ask you, hey, you know, you're already spending \$10 on that fish that will be unnamed. If we wanted to do 20 more surveys, what would it take to do that? We're allowed to answer that. Kind of an operational question. We are kind of unable to answer, hey, what do you need for? You know, just kind of a big generalized open-ended question. Or would you like more money for? You know, it's like we usually can't answer those kind of questions.

Unless they're asked very specifically and directly to us about an activity, what would it take to complete an activity, what could you do if you have this amount of money? What more could you complete and accomplish there? So, as long as it's not presented or presented to us in a way that we have to ask that appears to be requesting money beyond the limits that the Administration put on us, we can ask and answer those questions.

As well as we're allowed to say what we can't do, you know? Hey, you know, if you get this, you know, \$10 you've asked for in the President's Budget, can you add three new vessels to your fleet? Like, well, no, we can't. You know, we can answer those kind of things. So, it's a guide for folks wanting -- looking to support the budget or if you have interest to where you think your organization

or your community needs attention to the budget.

I think this is a good place to go look and guide, and kind of figure out how to frame those questions and discussions in a way that we're able to answer them and not just give kind of the blanket answer: Go look at the President's Budget.

I'm advancing my slides but not yours. Sorry. So, speaking of kind of the characterization of the budget and how it's discussed and framed, this administration, our priority investment areas are presented here. You've probably heard a lot about this from Janet already.

Climate research is a big focus, economic development, and environmental justice and equity is where the binning, so to speak, of our FY '23 budgets are being -- how our budgets are being presented. And I think you'll see this binning continue in FY '24 as well.

I think climate research, economic development, it's something, obviously, long-standing interests in fisheries and fisheries fully engaged with programs here and working here, we are looking to expand our understanding of fishery's interactions with climate with some new initiatives in the budget highly important to our scientific community.

I think economic development, this group and body knows that we're here to support commercial and recreational fisheries and all the components of that. I think what is new for us in a program request, meaning a specific dollar amount, a specific funding level for identified program, is the environmental justice and equity pieces here. And I will talk about that a little bit as we go on here as well.

So, where we sit with that request, or those priorities in our request, our President's Budget up here -- so, this table shows the President's Budget, listed here as Pres Bud, we're asking for, you know, just over a billion dollars of funding for those

priorities I just described.

We're getting good feedback from the House and Senate, at least initially, in their marks. So, they do a mark-up, summertime typically, where they put forward of how they are viewing or potentially viewing our budget. So, right now, that's all very positive.

House and Senate generally showing strong support for the budget. The little difference between the House and Senate of how they are landing on different pieces, but largely supporting the programs at least in some capacity. Not everything that we've asked for and not everything that's kind of the same place we've asked for it, but good signal here. Overall signal, support of our budget, support of our request.

We're not seeing reductions. We're not seeing cuts. That's the key thing for us. Last few years, it's been tough for other agencies where they've seen cuts. We have not seen that and so it's hard to even complain about a flat budget as long as you're not getting cut.

Also highly important here, as I referenced up front, we're getting our requested inflationary posture, or ATBs. That's being recognized and that's really important to us to keep kind of just core operations.

Some of the specific areas where this comes out. I won't read through each one of these in detail because I think we can get maybe long in the tooth here going through each one of these. But climate research, you'll see the pieces there. In this bin that we just talked about, we have, you know, \$31 million in the President's Budget request for increasing capacity in this area, with really the focus or kind of one of the primary focuses in this climate.

Informed fisheries assessments category, really looking to take what we are learning and know about other aspects of the environment beyond just fisheries, so that we can do better at predicting how

fisheries might be responding and reacting to climate changes and temperature changes and current changes in the ocean.

So, climate research, that's the binning there -- or, sorry, not the binning. Within that bin, you see the different program areas where we're looking for increases. And the table depicts what we've asked and you can see where the House and Senate mark have supported or not support.

Strong support from the House mark in our specific areas there. Senate mark, a little less so, and that's just kind of how the game goes trying to navigate between those two.

Offshore wind, a high priority for this administration. High priority for Janet and NOAA Fisheries here to make sure we are responding to all the stuff, you know, Bob Beal and others were just talking about. Wanting really to be able to be -- have the capacity and capability to provide technical advice, to provide the legal required consultation advice as the projects are developed.

So, you can see here a big focus of our last couple years of asks. And I predict -- or, you'll see this in the FY '24 as well is our ability to really undertake the science and technical reviews of the impacts of these projects as they're put in place.

You'll see again, this is positive news for us is that the House and Senate are both supporting this here at this point. Again, you can see House is almost at full support. Senate not quite as much, but any resourcing here would be valuable.

And I think given some of the conversations just happening early on, a big focus here beyond or direct consultation requirements through MMPA, or Endangered Species Act, or essential fish habitat requirements. There's a larger question here to look at scientific survey mitigation, so that second line down under offshore wind there. The \$17 million.

As Bob was just referring to, a lot of displaced fisheries, potentially, from the location of these structures. It's also going to result in a displacement of what our normal survey lines is, where we've normally surveyed. You know, I assume these -- some of these survey track lines are probably 20, 50 years old, if not more.

So, it's trying to understand what our -- how our population assessments might be changed as we might have to change survey tracks or different methods. It's a big undertaking because you often want to do calibration. You want to do dual towing, if you can. That kind of thing. So, a big component here on understanding how this might even impact our ability to do the assessment -- surveys and assessments that we're known for and is kind of our bread-and-butter business.

Sorry. The other areas here we're focused on '23, and again I think we were in '22 as well and I think you'll see some of these, hopefully, in '24 as well. Economic development, I think pretty straightforward there. We view our permitting facilitation through ESA and MMPA supporting economic development.

Our Seafood Inspection Program, that's just to -- was to hopefully build us a corpus of funding for that program. It's a fee-for-service program that is -- we want to just make sure we have solid core funding for that program when things like COVID hit. Like, when COVID hit, we lost receipts under kind of a depressed economy, so that funding was asked there. You can kind of see where the House and Senate sit on this.

Environmental justice and equity, like I said, that's new for us. I think this is a little surprising to us here, at least, I think surprising to Janet. We've got new requests here and I think this -- I think MAFAC, even on agenda, is some jobs training and training components that MAFAC was interested here.

So, we have a number of items under

environmental justice and equity. One item, the very last item there, was a training program to the seafood industry. Those all still sit in the request, but we're right now not seeing strong support from the House or Senate. We've tried to tease out why that is. We think these are very kind of, you know, \$7 million dollars, low-cost programs to initiate a lot of change and affect communities we think pretty dramatically for this kind of dollar amount.

So, it's an area we're still pushing. It's an area Dr. Spinrad and Janet, administration is heavily focused on. One thing I really like about these initiatives is particularly the advancing and approving territory of Fisheries in science management, the first item up there for \$3 million.

It's our core science work. It's what Fisheries does all day long. And with science, it's assessment of populations, it's assessment of fish, and it's determining, you know, kind of what you can take from the water for harvest.

But it's doing it in areas that we don't typically do and it's doing it in areas in the Caribbean and the Pacific Islands that are presently kind of underserved by our resourcing or the states don't have that resourcing. So, little concerned House and Senate are not at the same place we are here, but we're still hoping that might come through.

Won't walk through this in each piece in detail. I think just highlighting here we get a lot of direction from Congress, from the House and Senate, on how we spend our money. And what that means is, when you get a budget bill, Congress usually gives us, oh, up to seven pages of language.

That's not just the budget tables, like here's your dollar amount. They give us a lot of direction of how to spend it. You know, where to spend it, potentially who it goes to, what work -- what we should work on. So, this is just a reflection of here -- you know, again, I reflect -- I pointed out up front, you know, we got a \$40 million increase last year. That was

great for us.

Our budgets are somewhat maybe moving out of that flat budget scenario. But you can see here a lot of that money is directed in small bits and drifts and drabs, is focused for us and told kind of exactly where we should put that funding and how we should utilize that funding.

Again, we respond to Congress. We're glad to get the money and take that direction. It doesn't necessarily put us where we expected to be when we stepped into the President's Budget request, though.

As you've heard a few people reference, we have a great opportunity with the Bipartisan Infrastructure Law. Let me look. Is that the right acronym here? Yeah? Okay. The acronyms have changed a few times. But I won't focus on this because Carrie is actually going to do that in detail here in a moment, so I'll quickly skip over these items where Carrie will talk about our just once-in-a-lifetime opportunity to work on habitat restoration and fish passage.

What I will talk about just a little bit but I can't say a whole lot because we are still waiting for our own internal spend plan process to work through. But under the IRA, or Inflation Reduction Act, NOAA is on the precipice of receiving \$3.3 billion, which is obviously a huge deal. It's a game changer in many areas for us.

The pieces I do know about is we're receiving \$20 million across NOAA, about \$15 million of that for Fisheries, to work on consultations and permitting. To help us -- again, this is really to help us on our regulatory requirements as it's focused on ESA and MPA essential fish habitat.

And primarily put in here so we can address all the infrastructure development that the IRA Bill is supposed to be supporting and other entities and other federal actions and activities that we would be involved in.

We also have a very specific piece here with \$150 million for new facilities with a focus on potential fisheries labs, which is important to us. How that money is going to be allocated, through what facilities, where that will go, what facilities projects is unclear and still being developed.

Our number one facility development project in Fisheries as reflected in our President's Budget is our Northwest Fisheries Science Center in Seattle. We refer to it as our Montlake Lab. It's in a little neighborhood, south of the university, called Montlake.

That facility basically needs to be -- well, that facility, we're moving out of that facility because of highway construction and just age. But we need kind of an entire new facility for our, you know, 250 staff that work in there, and that's one of our highest priorities. Not saying RA money will go for that. I'm just saying that's in the mix of discussions as it is in the President's Budget as well.

The big item that we're also all focusing on is this \$2.6 billion, which is actually focused on coastal climate preparedness. And it speaks in here, specifically, to marine and fishery stock assessments and enhancements. So, we are rapidly trying to work through a spend plan for this funding to cover some habitat restoration components, climate preparedness in general, and to include some components for stock and survey enhancements and maybe some advanced technologies there.

But not able to say much about that yet because we are still fully in the planning pieces of what to do with the amount that we are getting. And to Janet's question a bit earlier, you know, when we might see a budget, Congress is very interested in what we're doing with that funding as well, so we're kind of in this dance with them. They want to know what we're spending in that budget, so they can maybe determine what they give us in their appropriation.

One thing I'd flag here. Don't know how closely folks are following this and -- but I thought it might be of interest to this group of how does this act or this committees we're developing here interact with MAFAC here. So, there's the passage of the American Fisheries Advisory Committee Act back here in May, which it directs us, NOAA Fisheries, to establish the American Fisheries Advisory Committee.

The focus of that committee is really on making recommendations for the Saltonstall-Kennedy Grant Program. If folks don't know that program, aren't aware of that program, annual grant program, external funding program, runs \$8 million to \$10 million a year. I think at its peak maybe we've done, you know, \$25 million program in one year.

So, the issue here -- interest from Congress in forming these committees and developing this -- or, sorry, passing this act to form these committees to help us guide priorities with Saltonstall-Kennedy is there was concern that our Saltonstall-Kennedy work wasn't supporting kind of direct industry promote and development as directly as it could or should be.

The belief of the Congress and the goal of the committee is to actually to help us put energy and understanding into what more -- what type projects and what projects would more drive the, quote, unquote, promote and development side of the fishery. Maybe less of the science and less of the kind of direct biological research that some of the S-K work had maybe done.

And committee process for that, we actually modeled the selection of that committee much after the way we make selections within MAFAC. The Act established these six regions and the regions are really only for the purpose of selecting the committee members. They don't match our NOAA Fisheries regions. They don't necessarily match this structure of the councils. There's a bit of a overlap

there.

So, we're in the midst of the first round of working with this committee. We've named the committee members, oh, I just think last couple weeks. Definitely within the last month. Website link there if you want to see who all those folks are. Our first meeting is December 12th, or so, here coming up.

So, we have, I think, everyone except maybe two of the at-large members selected. We're going to have our first meeting where largely the focus of the first meeting here in December will be helping us plan FY '24 priorities and kind of statements through our Notice of Funding Opportunity coming in the next year since FY '23, we're already evaluating proposals.

Actually, I'll add, since I know MAFAC is a formal FACA committee, which requires all sorts of kind of legal obligations, commitments, this AFAC is not that. So, it's really focused just on Saltonstall-Kennedy. The advice and guidance is not as broad as you guys might provide here to NOAA Fisheries.

So, in one sense, it makes it a little simpler to work with because it's not a lot of the rules of FACA, but we're trying to follow most of the rules and be public and transparent on everything we're doing there, so.

Last thing I'll close out here with is the NAPA report. It's the National Academy of Public Administration, who is assigned and -- or, we hired, actually, to do a review of our budget process. Congressionally directed review here with funding from Congress to do it.

If you're not familiar with NAPA, they're kind of the National Academies of Science's equivalent to kind of public administration. So, blue ribbon panel here of high-powered, high-profile individuals to review, kind of, all of our budgeting process. Again, budget processing isn't just the numbers. It's the strategic planning. It's the program planning. It's how do you

address your kind of core foundational needs. You see, like, facilities up here.

Key piece, I think, the reason I flag it here, some of you might've been contacted by them. Maybe the commission chairs who just left were more likely than maybe some just around the table.

But NAPA went -- oh, this is probably two years ago now. Went and did interviews with a couple hundred people within Fisheries, with outside fisheries, asking folks what would you like to see improved in NOAA Fisheries' just budget planning, strategic planning, and communications of their budget process?

So, we got a long list of recommendations that we are starting to step into. So, I wanted to flag it here again because some of you might've actually been reached to and talked to NAPA about this.

But I think key for this group, what we're talking about and thinking about doing, going all the way back to my first slide on the different budget years of planning, is really getting -- our response to NAPA is really getting our planning ducks in a row and starting planning in advance of the kind of current year, or active -- you know, doing the active planning within the year of execution.

That's kind of what we do in some of our areas. It's understandable why we do it. A lot of people busy, you don't have enough staff, you don't know when your budget's coming. Kind of tying back to the front of the presentation.

If you're not sure what your budget is and you're trying to then also execute in March and April, then you start doing your planning, you're already in that budget year. And also trying to also do a better job of communicating with individuals that -- groups you represent here or as MAFAC.

Just before we started the meeting this morning, a big portion of this focused with the commissions and

the councils. The commissions, we're talking with them about a process to engage in their planning processes, so they can start thinking what they want to put forth as priorities, you know, at the execution point, meaning what would our regions and centers potentially do to address, again, some of the things you just heard Barry, Bob, and David outline. Their needs.

Our regions and centers when they have their allocations, they can start thinking about that or even stepping that back a couple years. FY '25 is where we're planning out what resourcing considerations should we be making in that out year for the President's Budget? Can we be doing -- and how can we -- engaging with the commission directors, for example, to have those priorities considered way in advance before we get a budget and it's kind of too late.

I know Atlantic States Marine Fisheries Commission, for example, has a strategic planning plan session where they do this and they kind of look at budgets. They do planning. The other two commissions don't yet. So, really just this morning, just before we started, they were talking about how we kind of model some of that Atlantic States model into their models and get the planning up front.

So, just flag that there. There's a lot in that. There's this multiyear effort to kind of revamp and enhance our communications and budget process. I just wanted to flag that part, I mean, because a lot of you might've been aware of that or participate in that.

And I think with that, I'm done and I'll turn it to the Chair for direct questions, and glad to respond.

Chair Davis: Brian, thank you so much for that comprehensive overview of the budget. It really gave us some really good insights as to where you are now, where some of the needs are, where they're overlapping with some of the priorities that we're working on as advisory capacity for you-all.

So, yeah, let's take some questions. We have about ten minutes for discussion. And I saw Pat is up first and then Jocelyn and then Sara and then Meredith.

Mr. Pawlak: Good. Lots of questions, good.

Dr. Sullivan: Great. Thank you, Brian. I really appreciate it. It's always enlightening to kind of see the whole flow of things here. I have two quick question for you, I think.

One is, you know, we saw the wind funding category. Does that mean new personnel are going to be added for that? Because one of the things we've been hearing is, you know, that, like, the rest of the science community is being saddled with this in addition to everything else, so.

Mr. Pawlak: Yes, definitely. A big portion of that request is for personnel. I'd hate to throw out the numbers, because then I'll be wrong on the exact number. But we're talking dozens more.

Dr. Sullivan: Okay.

Mr. Pawlak: We're talking, like, 40, 50 people in that area. Yeah, yeah, yeah.

Dr. Sullivan: This is very reassuring to see that happened, so appreciate that. My second question, if I may, is I saw under the science center funding, it said, consolidation and realignment. Does that mean some kind of changes to the science center, or is that just the kind of wording that's always in there?

Mr. Pawlak: No. Yeah. Was that a specific slide? No. We do not have any planning of --

Dr. Sullivan: Okay.

Mr. Pawlak: -- re-jiggering the organization, if that was implied in that at all.

Dr. Sullivan: Okay. Yes, yes.

Mr. Pawlak: No. No, it's --

Dr. Sullivan: Okay. Thank you.

Mr. Pawlak: Yeah.

Chair Davis: Jocelyn?

Dr. Runnebaum: Yeah. Thank you, Brian, for that presentation. I had a couple of questions. I was curious what sorts of activities might be included in that 2 million dedicated to North Atlantic right whales. What sorts of projects that might include.

And then, in terms of the 2.6 billion that was for coastal climate preparedness, I think under the IRA, does that include nature-based solutions as part of that in those buckets? Yeah. I think I'll stop there.

Mr. Pawlak: Okay. Thanks. Yeah. Well, luckily, I have my notes pulled up here on North Atlantic right whales. So, that \$2 million, which is Senate-directed at this point, so that would have to be enacted and be made available to us yet, which it's not, but the Senate direction in there right now is 1.5 million to support innovative lobster gear pilot programs. So, I gather half a million's probably up to our discretion. So, that's the key piece of the language straight from the Senate.

Yeah. I think on IRA, yes, I think the whole point is lots of consideration for nature-based solutions, particularly in our habitat regimes, which I think Carrie will probably talk about here after me, I believe.

Chair Davis: Thank you, Jocelyn. Sara?

Ms. Schumann: My question, also, is primarily about the Inflation Reduction Act, although it also may apply to the Bipartisan Infrastructure Law. But since that process is further ahead, I might have a different answer.

My question is, how the public and stakeholders can track those processes and if there will be any

opportunities for public input.

Mr. Pawlak: Good question on that. I think the BIL funding, you've seen the Notice of Funding opportunities go out. Those are out there. I think that's a strong signal of what folks are expecting on with BIL, obviously, and I think those will -- across NOAA, those funding opportunities are indicative of what we want to do for the BIL funding through the life of that funding.

IRA, I would expect some similar-type activities. I'm not sure what the public outreach or input to that might be. I think I -- at least from my knowledge, we're still in the stage of too early to trying to figure out where that binning goes and how that puts forward to put forward.

But I think, you know, some of the survey side and those kind of things, if we get money for surveys and assessments in a decent amount there, I mean, I think, of course, we'll want to engage with our partners in the commissions and regions, and ask, you know, where are our priority areas and how we do that.

As you've heard around the table, I don't think we can execute all that money on our own, so there'll have to be, you know, grants/contracts that do that. But I think that's maybe a little different question than you're asking, kind of more of a public forum for how you determine that, and I don't have a good beat on that right now, so.

Chair Davis: Thank you, Sarah. And Janet would like to say a few words and then we'll get back into the questions.

Ms. Coit: Just a very few. I have to leave for the rest of the day. I have to go to the Science Advisory Board meeting and then up to the Hill, and I'm not positive I'll get back tomorrow. I am hoping to, given some other obligations. So, I just wanted to say, again, thank you for your work and your expertise.

And I'll look forward to with Heidi and Jen and others -- and Megan, I'll keep track and try to provide some feedback on the rest of the meeting. And, Sarah, again, thank you. Last night was incredibly special. Lucas, thank you for being here. And I'm really grateful to all of you.

So, I hope to see you again tomorrow, but I'm not positive, so I just wanted to say goodbye and you're in good hands.

Chair Davis: Thank you so much, Janet. We really appreciate you being here and all of our insights.

Let's see. So, Meredith and then Stefanie, and I see Donna.

Ms. Moore: Hi. You don't have time for all of my questions.

(Laughter.)

Ms. Moore: And so, I will probably just need to follow up with you, but I wanted to say a couple things. One, this one's weird. This PowerPoint presentation, which is the format you guys have been using for a number of years now, was so helpful when you, like, unveiled that and I feel like I didn't understand the budget process really well for you guys until you started doing it that way, so I just wanted to thank you. And also, the consistency is really helpful over time, so thank you for that.

Mr. Pawlak: Good to hear. I will let my staff know for sure, since they do most of that for me.

Ms. Moore: I genuinely like it. So, the thing I wanted to say is I wanted to really emphasize, I think -- and I haven't spent enough time with the NAPA report. But the focus from them on communications, I think, is so critical because, you know, we -- in my not here thing, you know, we talk to people about the budget. We're very interested in what it contains and what it doesn't contain, and how to try to communicate what the

shortfalls and gaps and needs are.

And it is truly difficult from an external perspective to do that and I think that we end up trying to answer some of those questions for the Agency and we do a bad job of it. And so, particularly, on the Senate side, where if you look at how they are responding to the President's Budget, they are not responding to the President's budget.

Mr. Pawlak: Yeah. Yep.

Ms. Moore: There is a huge -- and instead, they're responding with directed funding requests. And I think there's --

Mr. Pawlak: Yeah. You've observed the same thing we feel, yes.

Ms. Moore: Yes. So, I think there's a lot of reasons for that and a lot of things that can be done to address it. And I think, like, many of us around this table and outside of this table want to figure out how to do that better. So, that's just, like, one note.

And I think that, like, for me, it got harder to try to explain what was happening in the NMFS budget when the PPO lines were restructured. And I know that was done for a lot of very good reasons and so I don't want to undo that. But that --

Mr. Pawlak: Yeah. Yeah. And that's been, like, six, seven years now.

Ms. Moore: Yeah, yeah --

Mr. Pawlak: So, if we have a six or seven years with a gap of understanding, we got to fix that, yeah.

Ms. Moore: Yes. And I think that is the challenge is that in the lack of understanding, how the activities are distributed across those PPOs, you've seen a response instead to, like, point at specific types of things that Congress wants to see and you've seen that increase in the directed funding requirements and language.

And so, I think there's just, like -- there's a lot of need to better communicate and to figure out, like -
- thank you for the good advice on how to ask the right questions or how to get the right questions asked. But, like, we need to figure out what the 25 of those are. Like, it's not that there's one or two missing --

Mr. Pawlak: Right, right.

Ms. Moore: -- it's that there's an overall huge challenge in communicating the need, and I am so tired of looking at a flat budget for you guys. So, like, I just -- I don't know what else to say about that.

I do have one very specific question otherwise, which is that I was wondering if the IRA money for infrastructure is alleviating any of the infrastructure asks that you're having to do in annual appropriation cycles? Because I know, like, filling -- backfilling sort of your research facilities and all of that has been a large amount of funding requests in the President's Budgets for the last many years.

So, I'm just wondering if that 150 million is alleviating any of that, or if it's sort of just like, it was a bucket with a hole in it and we're still putting --

Mr. Pawlak: Yeah, no. Well, firstly, your -- make sure I get back to that one. First, thank you for all those up-front comments. I'm glad to try to work with you on all of those.

And in past administration -- not a political statement. Just a factual statement. We were pretty restricted, told not to go talk about budget to people, right? So, glad to open that up and have that conversation again in other ways. And the budget table can get confusing and usually -- except at maybe a senior executive level or some other kind of broad organizational level.

You know, the budgets executed at much smaller

amounts than anything presented in our budgets. I mean, I'm showing you billion-dollar categorization of a budget there. So, if it gets down to those details, we can provide that. I mean, some of that's hard to because we're not sure even what level -- you know, when you get down to a certain level, expenditure gets really granular.

But we do have detailed tables. We do have the regions and centers who track things at a different level, and we're glad to open conversations about all of that if we can. So, I appreciate those observations.

On IRA, I'll say more generically, because I'm not really able yet to talk about what the Fisheries piece of it would be. We have a request in the President's Budget for our Montlake Northwest Fisheries Science Center facility. Basically, a new facility. Well, it'd be through a leasing option.

The 150 million through IRA will help us across NOAA however that gets used and it's not yet decided. But across NOAA, the facilities gap in just deferred maintenance and backlog and that kind of thing is hundreds of millions of dollars. So, it'll help. Anything will help. But 150 million, not going to look that gift horse in the mouth, but that is still a small amount.

So, even if we get the full President's Budget asked for our Northwest Science Center facility and the 150 million, we're thrilled. We'll be jumping up and down if we get both those across NOAA. That'll help NOAA in many areas. Not just Fisheries because NOAA's got -- but, you know, our -- I can't remember the statistic I used. But our NOAA Fisheries facilities, you know, are, I think, on, like, an average 30 years, 40 years old. Some of them 50, 60 years old. So, it's hard to fill the gap even at that level.

And that's been hard to communicate to Congress because what we are needing to do is fix roofs and replace things that we don't have a facilities line, we

don't have a budget, an admin line. So, that comes off of the top of program lines to take care of those kind of things.

Chair Davis: Yeah. Thank you. Thank you, Meredith and Brian. Stefanie and then Donna and then we'll wrap after Donna's comments.

Ms. Moreland: Thank you. Your remarkable calmness in talking through the gap between the President's Budget and where the Senate and the House are at is possibly because you've been doing this a long time?

(Laughter.)

Ms. Moreland: To me, it's really an alarm. And I was just quickly looking up those NAPA recommendations and I totally echo Meredith with respect to the communication needs and additional tools to be able to help bridge that gap with respect to assessments, with respect to how climate adaptation, fisheries assessments, all that's getting bucketed. In terms of how the Agency wants to move forward and seeing that gap is really an alarm from my perspective.

So, completely reinforce Meredith's statements. And if MAFAC and be helpful there or leverage tools that we've talked about in terms of communications needs for other purposes to be able to use them, to be responsive to the NAPA recommendations, I think MAFAC would be probably interested in providing that support.

On a specific, Seafood Inspection Program, seeing that gap between the President's Budget and where the House and Senate is, is very concerning. That program is, it seems to me, in jeopardy along with extraordinary rising costs and burden on industry, and so something has to change there. It's a critical program for market access.

We've hired quite a few professionals in food safety and quality assurance that come from other food

manufacturing sectors, and other agencies are doing this better. There's got to be a way to really work together on risk-based mitigation strategies to find some efficiencies in the Seafood Inspection Program, and now particularly in light of the gap I see there in budgeting.

Mr. Pawlak: Well, thanks for those observations.

Chair Davis: Thank you, Stefanie. And, Donna?

Ms. Kalez: Thank you, Brian. I just had a quick question. So, on the slide that says Congressional Mark Highlights, Activity Funded, the very bottom it says, Northwest Fishery Science Center consolidation and realignment, and so I think maybe that's what Pat was asking. But where's the Southwest Fishery Science Center activity funded in this?

Mr. Pawlak: Yeah, okay. I see that slide now. Yeah, that consolidation realignment. I'm not sure what -- that is probably what it says in the Congressional mark, or we wouldn't put it here. But the direction here is we're -- it's really to get us a new facility.

I don't know -- so, I don't know why that language -- that language, I would lead -- jump to the same conclusion. That's why when you said, I'm not even aware of that even though it's in my slide. Yeah. I don't know why it's -- we're realigning to a different location. We're not --

Ms. Kalez: Right.

Mr. Pawlak: There's not an organizational change planned and so -- yeah. But I see that sitting there -- right there. The consolidation terminology might be because, you know, if folks who are really into following the Northwest Fishery Science Center, we had a building in Mukilteo, Seattle, about 15 miles north of Seattle, that we're no longer in.

You know, actually, it was not demolished. What was the term? You're not allowed to enter. You're

what? I forget what the

UNIDENTIFIED PERSON: Condemned.

Mr. Pawlak: Condemned. Sorry. Yeah. It was condemned and then there was a fire in it after we left. So, it was condemned. So, those folks have moved out. We're going to be relocating some of them to the Manchester facility, which is across -- if folks aren't from Seattle, it's across -- it's a ferry ride across from Seattle.

So, I think the consolidation is we have one less location in Mukilteo, which was condemned. And so, some people will be where the West Coast region and center are, the Sand Point facility there. Some people will be at the Montlake. Some people Manchester. So, I think that's the consolidation. There's not a reorganizational design here in that.

And where is Southwest? We don't have separate budget lines or tracking for each of our locations or facilities. This is unique and getting attention because this is an asked increase, the 83.4 here, I think it is. Yes. This \$8.3 million here is to be able to basically move out of the current Mukilteo facility and into a new place.

So, that you don't see a specific reference for every science center, we don't have a budget line and we don't track our facilities costs that way for each location. Southwest, specifically, it's one of our newer places, so we don't have less problems there, but we do still have problems in just kind of upkeep and maintenance -- deferred maintenance costs there. It's a challenge.

But it comes from a programmatic -- it's assessment off of all of our programmatic lines to pay for those facilities, so you won't see something separate there unless it becomes a unique kind of rebuild/redesign, or something like that, so. Yeah. So, that language can be confusing.

That shouldn't scare folks. I think the consolidation

piece I'm just almost forgetting because I'm in it all day long. It's just we did close one lab. We're trying to put folks into the new facility if we get it. Manchester existing facility and then the West Coast region center location, so.

Chair Davis: Thanks for that clarification, also, Brian. Brian, this was a really excellent overview. I think it also helps us, as Stefanie said and Meredith and others said. You know, it helps us to frame some of the areas that we can be looking at to help NOAA and to provide recommendations in areas that we're discussing, so it was a really great overview -- --

Mr. Pawlak: Yeah, no. I appreciate it.

Chair Davis: -- especially as we work through our work plans over the next couple of days.

Mr. Pawlak: Yeah. And I'm really intrigued by all the -- yeah. I didn't know if folks were going to go, I don't even know what NAPA is, so I'm glad to hear people do. Maybe it's something, Chair, and with working with the policy team, maybe it's something we come back to this group and talk more directly about the communications pieces here, which would be --

Chair Davis: I think so.

Mr. Pawlak: I think would be valuable, so, yeah. But now the fun part because I think Carrie gets to talk about how to spend all this money --

(Laughter.)

Chair Davis: Sounds great.

Mr. Pawlak: I'm talking about all the problems with the budget. Carrie gets to --

Chair Davis: Thanks again, Brian.

Mr. Pawlak: Yeah. Sorry.

Chair Davis: So, I'd like to introduce Carrie Robinson, she's the director for the Office of Habitat Conservation and we're happy to have you here with us today. Thank you, Carrie.

Overview of BIL Funding and Restoration Opportunities

Ms. Robinson: Good morning, everybody. It is a pleasure to see all of you. Some of you I know. Some of you I haven't seen in, gosh, many, many, many years. And some like Kellie I just talked to, I don't know, couple months ago.

I am the direct of the Office of Habitat Conservation. And as a part of my office, we have the Restoration Center. So, a lot of you are familiar with our restoration center because most of my restoration center actually doesn't sit here in the Silver Spring area. They sit in coastal communities where you-all are from, doing large-scale habitat restoration in those places.

And today, I'm really excited to talk to you about some new investments in habitat restoration and climate resilience at NOAA. A year ago, I was -- I had been out with my husband with some friends for dinner and I was up brushing my teeth, and my husband yelled up the stairs and I couldn't even understand what he was saying. But he's screaming, the infrastructure bill passed, the infrastructure bill passed.

And that tells you how much time we've been spending together working at home that he knew what a big deal for our agency, for our coastal communities this was. This opportunity is incredibly exciting.

So, today, my goal is for all of you to learn something about infrastructure, so just to raise some awareness. I know some of you are really familiar with this and some this might be new for you. I do have a few slides, but my hope is that we move through those fairly quickly and then we can

discuss, answer questions, whatever you'd like to do.

All right. There we go. Okay. So, NOAA received almost \$3 billion and this is \$3 billion over five years. So, you're going to hear me say that. Over five years, over five years. And there are 18 different provisions. I am not going to talk about all 18. I am going to talk about three today.

But I wanted to provide this bigger picture. NOAA has categorized the provisions into three bins. One is climate data and services, the other is climate-ready coasts, and the third is fisheries and protected resources.

Today, I'm going to talk about provision two, which is habitat restoration, which is under climate-ready coasts. I'm also going to talk about provision 14, which is fish passage, which is under fisheries and protected resources. And I'm thankful that Barry has left the room because I am going to attempt to talk about little bit about Pacific Coastal Salmon Recovery Fund, which he's the expert in. So, hopefully I won't bumble anything there.

I heard some questions about, how do you know what's going on with all of this? NOAA has a website. And if you just do a Google search for NOAA and infrastructure, it should pop right up. There is a page on every single provision. It gives you a little bit of background. It gives you if there's any funding opportunities. There are a link to those funding opportunities in the announcements.

So, it is a good one-stop shop so that you don't have to know, I got to go to the Office of Habitat for this one and the West Coast region for that one. So, that should be one-stop shop for everybody.

Okay. So, today, I'm going to talk about, I told you, habitat conservation and fish passage. So, we received -- well, will be receiving approximately \$891 million over five years in the Office of Habitat: 491 million over five years is for habitat restoration

and resilience and 400 million over five years for fish passage, 15 percent of the 400 million is reserved for tribes. I'm going to go into a little bit of detail about that in a moment.

The vast majority of this goes out the door through competitive funding opportunities. So, there is a little bit of money percentage wise for us to run the program and to do what we call technical assistance. That pays for our people who work with our partners to get this work done on the ground. Helps with environmental compliance, things like that.

But the vast majority out the door. And not out the door just any way, but out the door through competitive funding opportunities. Then we set up cooperative agreements with partners who are successful and we implement habitat restoration on the ground.

I want to focus on -- well, actually, let me go back here. For each of these provisions, we did two different funding opportunities. So, the \$491 million there was what we called our transformational habitat restoration. We like the word, transformational. Big. Big projects. And that was for projects that are between \$1 million and \$15 million.

Also, under the \$491 million, we did a funding opportunity just for underserved communities. I'm going to talk about that in a moment. For the \$400 million, we did one national fish passage program. Again, bigger projects, \$1 million to \$15 million habitat restoration fish passage projects and one that was focused just on tribes.

All four of those funding opportunities were released in May and June for round one. And they all have closed and we are in the process of making decisions about which projects we are going to select.

All right. So, I want to focus just a little bit on one

of the funding competitions because we're really excited about it. This is the first time we've done something like this, which is a funding opportunity just focused on habitat restoration for underserved communities.

And what do we mean by that? We are looking for opportunities to fund the capacity for underserved communities to do habitat restoration. We are looking for projects that the benefits flow to underserved communities. We are looking to fund underserve communities' capacity to have a seat at the table, to influence where this habitat restoration funding goes.

We're also looking for an opportunity to fund their capacity so that they can -- sorry, apply for future funding competitions, the big projects. So, it's a lot of work to put together a habitat restoration proposal for \$10 million. If we give you some capacity building now, in three years, you might be ready to apply for a big project in your community.

We also, under fish passage, did a separate funding opportunity for tribes. Dr. Spinrad asked tribes earlier this calendar year for their input on how NOAA should implement the tribal-specific parts of the infrastructure bill and we got a lot of great feedback that we incorporated into this funding opportunity.

So, one of the things that we heard was they -- tribes would prefer their own funding opportunity rather than competing in the broader funding opportunity and then us just making sure on the backside they got 15 percent. So, they wanted a separate funding opportunity.

We also heard that they wanted the ability to fund their own capacity to do this work, and they wanted that to be clear in the funding opportunity that they could build that into their budgets, the tribal capacity to do this work.

We also heard from tribes that they wanted the

ability to outline how these projects met their fish passage priorities rather than us dictating what the priorities were. So, in this funding opportunity, we said, please tell us your fish passage priorities and how this project meets those priorities.

All right. Pacific Coastal Salmon Recovery Fund. I just did want to note that this is a long-standing program on the West Coast. And in the infrastructure bill, there was an additional \$172 million over five years. So, this is not the total for Pacific Coastal Salmon Recovery Fund. This is the additional infrastructure dollars that were added to their regular funding.

This allows them to make more investments in the standard PCSRF funding, but also in the announcements that they made in July for round one, they were able to support more tribal projects than they had been able to in the past. And think about climate resilience in some of the Pacific Coastal Salmon Recovery Fund projects as well.

Light touch. This is not all the funding that NOAA got for habitat restoration. So, my colleagues over at the National Ocean Service are responsible for executing three different other funding provisions. The first, that National Oceans Coastal Security Fund Grant Program, that's run by NFWF. So, NFWF is receiving \$492 million over five years to -- for this National Oceans Coastal Security Fund Program.

They also are doing a habitat restoration funding opportunity for just the Coastal Zone Management Program. So, you need to be a CZ program in order to apply for this funding opportunity.

And finally NERRS. So, there is some additional funding for habitat restoration work in our National Estuarine Research Reserves. So, that was a competitive funding opportunity as well but, again, you had to be in NERRS in order to apply for that one.

Okay. Couple more points that I think I forgot to make. Where we are in the process. We put out all of those funding opportunities. All of those funding opportunities are closed. We are now making decisions. I am hoping, fingers crossed, that all of the fish passage decisions will be announced this calendar year, so we're moving just as fast as we can to get those announcements out this year.

For transformational habitat restoration and underserved communities, it'll be early in the next calendar year. We had demand that was ten times higher than available resources. This is more money and orders of magnitude than we have ever had before and we're still getting demand that is ten times higher than the money that we have.

That doesn't surprise me. I think that probably doesn't surprise a lot of you, but it's a really important number to keep in mind. So, while we are so grateful and so thankful for this funding, it still doesn't meet the demand.

Another really important point that I wanted to make is this was just the first round. Another thing we were really thankful for is that there are future years of funding. So, we can learn from round one. We've already gotten some feedback on things that are working for our partners and things that are not working for our partners. And we're hoping we can address a lot of those in round two.

We also will be providing feedback to unsuccessful applicants. Do we have advice for you on why you weren't successful? Tips that you can improve your application for round two? I also note a lot of people didn't -- a lot of our partners didn't apply in round one, so the demand is even higher than that ten times.

And some didn't apply because they weren't aware of it. Some didn't apply because they weren't quite ready or the project wasn't quite ready. So, we are excited to see those projects come in, in round two.

All right. With that, I will open it up to anything you guys wanted to chat about.

Chair Davis: Go ahead, Sara. Sara and then Kellie.

Ms. McDonald: Thank you. Thanks for that. I just remember May and June being really confused because there were so many different funding announcements about habitat restoration and so I'm curious. I have a couple questions.

My first one is, the underserved communities, is that one through NFWF, or is that -- that's directly to the agency?

Ms. Robinson: Yeah.

Ms. McDonald: And also, I remember some of these, like, you had to partner with the state agency and I couldn't remember which one was which, and I was just wondering if you wouldn't mind clarifying that for me.

Ms. Robinson: Absolutely. We've gotten that feedback from a lot of people. So, some of that, we can't fix. It's the nature of how Congress designed the infrastructure bill. So, you know, 18 provisions, going for very specific things, so some of that I can't fix. But some of it I think I can.

So, one of the things that we have gotten a lot of feedback on is, do not release these all at the same time. Stagger the release, so that if partners want to go for different funding competitions they have the ability to do that.

Another thing that we are working on is making sure that the NOAA team is broadly aware of all of the funding opportunities. So, if you come to me and say, hey, I have this idea, and it's not appropriate for our funding competition, can I point you in the right direction? Hey, I'd like to put you in touch with my colleague over Office of Coastal -- my colleague at NFWF. That might be a better fit there.

So, the third thing that we're trying to do is increase transparency about when the funding opportunities are going to come out. So, this past time, we were in a bit of a black box and weren't green lighted to talk about what was going to be coming out. And I'm really hoping in round two, we can go back to being more transparent of, we think the next funding opportunity will be on this timeframe. Yeah.

Chair Davis: We have Kellie, then Stefanie, then Joe.

Vice Chair Ralston: Hey, Carrie.

Ms. Robinson: Hi.

Vice Chair Ralston: Appreciate you being here today. And kind of to follow up on yours and Sara's conversation, is there a way maybe to put together kind of a tentative schedule of kind of, like, what opportunities and a timeline? That would be really helpful.

Ms. Robinson: Yes.

Vice Chair Ralston: And then, secondly -- and I know you know I'm going to ask this. Could you tell me the -- where you all are in the -- kind of the process of distribution of the IRA funding and kind of that whole planning effort and kind of what we might be able to expect there?

Ms. Robinson: I wish I could. The IRA process is not yet at a stage where we're talking about it as publicly. I haven't been particularly engaged. This has really been at Secretary Raimondo and Dr. Spinrad's level. This is such a big opportunity that the two of them have been personally engaging in this. So, I'm hopeful soon that we're all able to talk about what's in there.

Ms. Moreland: I have a couple questions about how this applies in Alaska. For the tribal 15 percent component, do ANCSA regional nonprofits qualify in that bucket, or are they in the open competitive?

Ms. Robinson: Both.

Ms. Moreland: Okay. Thank you. And for PCSRF -- I haven't said that in a long time. Pacific Coast Salmon Recovery Fund plus-up, has that been extended to be able to reach Yukon and the treaty arrangement that extends up to the Upper Yukon?

Ms. Robinson: I don't know.

Ms. Moreland: Or is that restricted just to the Pacific Northwest? And that is a very --

Ms. Robinson: I know that the plus-up involves everybody who is eligible for standard PCSRF is also eligible for the plus-up. Does that answer your question? If not, I might not be the best person, but we can get answer for you.

Ms. Moreland: I recall it being a recent question as to whether that fund could reach the Yukon.

Ms. Robinson: Okay.

Ms. Moreland: And I think it's just a important consideration, if it's possible, to --

Ms. Robinson: Absolutely.

Ms. Moreland: -- support what's happening there.

Ms. Robinson: Absolutely.

Chair Davis: Thank you. Joe, you're on now.

Mr. Schumacker: Thank you, Madame Chair, and thank you, Carrie. Appreciate the update. Boy, what a great opportunity, huh? You know, you certainly heard the messages from tribes and I really appreciate the listing down of the concerns in your presentation, because those are by far our biggest issues. You know, being able to lay these projects out as we believe are needed to -- for salmon recovery and fish habitat and in capacity is something that I've brought up a couple of times here at this meeting already.

You noted earlier that in this first round, you could apply for some capacity funding in order to go for a larger project down the road. I'm not that clear on this. I've been buried in other things and like just to hear a little bit more about that, if that's -- what kind of strings are attached with that, how that -- how a tribe can work with that.

Because we have been suffering a net loss of personnel, as everybody has to some degree, during COVID and we're just really, really stretched. And leaving monies on the table is just a nightmare to us right now considering these opportunities.

Ms. Robinson: So, when I was talking about that, that was specifically in relation to the underserved communities. And we also have the tribal component that really speaks to capacity. So, those two are where you'll see the funding opportunity really emphasizes capacity.

Now, it needs to be capacity to do habitat restoration, so it can't be capacity for -- there needs to be a tie to why we got the money, is another way of putting it. So, as long as the proposal is tied to an idea for a future project or an idea around project development or implementation of a project.

But it could be we have an inkling of an idea and we need the capacity to develop that idea for a project. So, as long as the capacity is tied to habitat restoration or tied to fish passage, then it should score well in our process.

In the larger competitions, transformational habitat restoration and national fish passage, capacity's still in there, it's just not as big an emphasis as it is under tribal and underserved communities.

Mr. Schumacker: I appreciate that. Thank you. Yeah. You know, we've found through -- from the beginning with CARES and on through the process of these great appropriations that the -- you know, there's been -- the burden's been extraordinary on us in trying to get these monies, both applying for

them and many of the comments and restrictions on those applications.

Those were very trying. And then, in trying to spend these appropriately as we go through and manage them. So, I just want to leave that with you. And appreciate, Carrie. Appreciate all the work you guys do. We know that tribes really need help in that regard. Thank you.

Ms. Robinson: I know that applying for a federal grant or a federal agreement is no small undertaking and we are really open to suggestions about how we can be helpful. We know some people didn't apply and some partners didn't apply in round one because it was just too big a leap to get that package together.

And so, we're really open to suggestions on what can we do to make that a little bit easier, short of we can't help you write your package. But what can we do to help get past that.

(Laughter.)

Chair Davis: Carrie, thank you so much for coming and presenting today. We hope that you'll keep returning to MAFAC and giving us updates along the way.

Ms. Robinson: Absolutely.

Chair Davis: I think this was really exciting news, and thank you to you and your staff for implementing this great work. And thank you, MAFAC, also, for the discussions this morning. We are going to take a break and we're just a little behind. Not too bad. So, let's try to come back at about five minutes to 11:00. See you soon.

(Whereupon the above-entitled matter went off the record at 10:41 a.m. and resumed at 11:03 a.m.)

Mr. Dunn: Hey. All right. Thank you for having me. I am Russ Dunn. What?

(Off microphone comment.)

Recreational Fisheries Activities

Mr. Dunn: Oh, sorry. I am the national policy advisor for Recreational Fisheries. With me is my team, and we -- yes, we coordinated our outfits in blue, khaki and blue. Our -- Sean Morton and Tim Sartwell. And we're going to give a quick presentation today, touching on a few different topics.

First is some recent and ongoing work. Then we're going to give you an update on the -- on updating the Recreational Fisheries Policy, and then touch very briefly on some federal agency collaborations. And, in looking at the agenda, this will then lead into your discussion, led by Donna, of recommended -- recommendation for updating the Saltwater Rec Fish Policy.

So, following -- so, in March, last two days of March of 2022, we held the Saltwater Recreational Fisheries Summit, and at that summit, there was demonstrated interest in a number of things which we were able to pretty quickly respond to following the summit. So, most of what I'm talking about here has occurred between April 1st and now.

One of the things we heard about regularly at the summit was interest in more collaborative research and better monitoring. So, as we came out of the summit, what we did is quickly reach out to our regional science centers and other offices and constituents and ask, how can we help? How can we move that ask forward?

We were able to quickly identify some projects including sampling of Pacific rockfish, collaboratively with the for-hire fleet out there, specifically copper and quillback rockfish. In Southwest Florida, we were able to connect with the Watermen's Association down there and provide water quality monitors for a number of boats in the for-hire sector, as well as the commercial sector, that deal

really with harmful algal blooms and monitoring of that phenomenon.

On the West Coast or Pacific Islands, there was interest and a need to better understand the diets of Mahi on the reef structure out there, and so they wanted to do a sort of citizen science stomach, Mahi stomach collection and gut content analysis. That's going great. I was talking with those folks the other day. They've gotten over 400 fish and now are trying to expand that program to other islands outside of Oahu.

And then, another monitoring project which is an important advancement, and not the Rec Fish team, but rather the MREP and Office of Science and Technology, is the transition plan for better integrating Gulf State Recreational Fisheries data into the federal science and management process was released in October.

And that plan is now going forward. It's a two-prong plan with short-term, interim approaches for a few specific species, like gag and red snapper, and then a longer-term process to determine how to best integrate those different datasets together.

In terms of workshops and grants, that was another area of interest at the summit. There is always interest in doing workshops and better engaging. So, one of the things that we've been able to do -- continue on was our partnership with Carrie Selberg's Office of Habitat and working collaboratively with NFHP, the National Fish Habitat Partnership. And we have out, currently, a funding opportunity. In fact, there's a workshop this afternoon, a briefing about that opportunity.

We've done this the last three or four years. We've funded about 14 projects across the country. Last year, I think we funded a project in Alaska that mapped habitats and streams for potentially adding it to Alaska's list of protected watersheds.

We had one in South Carolina that engaged anglers

and high school kids in underserved communities on marsh and oyster bed restoration. And we had one - - where was the third one? Yeah. The third one. Well, I will come up with it.

We also -- we've hosted an angler habitat workshop down in Tampa Bay, Florida, where we brought anglers together to identify, sort of, their priority areas for conservation. And we were able to engage, sort of, two entities that reach out to under-represented communities.

Bristol Bay Fly Fishing Guide Academy engages indigenous -- primarily indigenous Alaskan youth, trains them on how to be a guide while teaching them stream ecology and fish biology, etcetera, and prepares them to, sort of, enter the workforce as guides.

And Academic Anglers is a group in Florida, which really works primarily with the African American community to educate them about basic, sort of, marine conservation and stewardship practices.

Mr. Sartwell: The third one was coral reef restoration in Hawaii last year.

Mr. Dunn: Yes. Thank you. Yes.

So, engagement is always a big priority and was echoed as such again at the summit this year. So, first and foremost, we've been on a whirlwind tour for the policy update, and I'll touch more on that in a second. I think we've done somewhere over 20 discussions since mid-September on that.

After, the American Fly Fishing Trade Association held a climate and sustainability summit which Janet Coit came down and spoke to. Similarly, she then followed up, met with the American Sportfishing Association at their policy summit to discuss Agency priorities and hear the priorities of the community.

We've held a number of constituent discussions

outside of the policy summit in the West Coast, Pacific Islands recently, and a few in the Southeast Region, including one we're going to host next Tuesday down on the shoulders of the Caribbean Council meeting.

Podcast, probably the greatest podcast ever delivered, was done two weeks ago, I think. If you haven't already heard it, it's up for a Webby, so --

(Laughter.)

Mr. Dunn: And then, of course, our effort on National Fishing and Boating Week, which we do every year. So, with that, we'll turn to the policy.

So, as I mentioned, we're updating the policy. And in short, when we did the summit, we quickly realized that there were a number of topics or issues being discussed at the summit that were not captured in the existing 2015 policy, first and foremost, climate and balancing ocean uses, wind, aquaculture, etcetera. So we realized, in order to keep the policy relevant, we needed to update it.

So, these were the general questions that we have asked, and that I think the Rec Subcommittee sort of started with. And it was really just an initial sort of guide to try and help people think about aspects of the policy that might need to be updated. You know, how could we improve or amend the policy statement, the scope, its goals or the guiding principles in there, and generally, what we might be missing that should be in there, or what's in there that might no longer be relevant?

So then, what I'm going to do quickly here is just give you a very brief, high-level overview of the policy, and then we'll move forward from there.

So, in short, you know, the policy serves as a guidance document for us. It is a touchstone for the Agency during decision making, and it provides the public sort of a tool to understand how we approach recreational fishing. It includes our, sort of, primary

goals and our approaches for -- or some of the approaches that we believe are appropriate for trying to achieve those goals.

So, the policy statement is very straightforward. I think it basically sets forth our commitment to accessible and diverse recreational fisheries.

The policy scope -- obviously, for any sort of policy document, it's important to understand to whom or to what it pertains. And we leaned on MSA when we drafted this originally, in 2014/15, in terms of fishing for sport or pleasure. But we wanted to try and incorporate more broadly the sort of larger set of activities associated with recreational fishing.

So, that's where this non-commercial language comes in, and this is an area where there's still a fair amount of conversation: to what extent do we, should we incorporate subsistence fishing or other non-commercial type activities? And so, this is sort of an ongoing area that we're looking for feedback on. And I apologize for the pictures being over the bottom of the text there.

So, the policy goals are all very straightforward: basically, support and maintain healthy resources on which recreational fisheries depend. And I think this is a fairly intuitive bullet, right, if we don't have habitats. No habitat, no fish. No fish, no fishery. Right?

Promoting recreational saltwater rec fishing for the benefit of the nation, that really comes directly from the purposes of the Magnuson Act. And then, of course, enabling long-term participation is something that we all want, right, both for the social economic benefits. And how do we do that? Well, as a science-based agency, of course we want to advance that or enable that through science-based decision making.

So, as I mentioned, the policy sets forth not only those goals, but general principles by which or through which we want to advance the policy. And

you can see those here. I'm not going to go into each of these individually, but these are really core to the guidance that the policy offers our offices across the country.

And again, this is really an internal document for the Agency to help it as it approaches decision making and recreational fisheries. How do we want to move things forward? What are the key aspects that we believe need to be addressed in order to advance those goals? And these are all the questions that the subcommittee has grappled with, in developing its recommendations for you.

So, what have we heard today? Well, we had a broad range of input. Climate change has definitely been identified as one of the most significant topics to include.

Education has come in a couple of different flavors, both in terms of educating anglers and the community, in terms of sort of conservation practices, but also in terms of the process. How do we engage, better engage in the process of fisheries science and management?

Equity environmental justice is another one which has come up, and it's primarily come up in two avenues, one in terms of subsistence fishing, and one in terms of broadening participation and engaging historically underserved or under-represented communities.

Access has come up in multiple flavors as well, everything from physical access where, say, in the Gulf of Mexico, increased intensity of hurricanes has hammered infrastructure in many places. Marinas, passes, etcetera wiped out or damaged. Two, access in terms of the opportunity to go out during a fishing season. How long is the season? Is it catch and release only? Things like that.

Agency accountability, implementation, and transparency, I'll rope all those together. There seems to be a real interest in ensuring transparency

in how well we are implementing the policy. There is basically a -- we have received the comment, over and over, that the existing policy is fairly solid. It needs some updating and amendments, but tell us how you're doing in terms of implementing this. Fully implement it and tell us how you're doing.

EEZ recreational permit or federal permit or offshore permit, whatever you want to call it, this is an issue which has come up over and over in different forums. There is real interest in using an offshore permit, whether it's a federal one or a state-run mechanism, to better identify the universe of anglers, which can have multiple benefits.

Data reporting and collection is a perennial favorite in terms of many conversations and people wanting us to prioritize that to a greater degree.

Depredation has come up, both in terms of shark depredation and marine mammal depredation or and/or all across the country, and concerns about the impact of depredation both on either stock status or fisheries activity.

And enforcement is something which has come up - - well, in two different flavors. One is that there has been a seeming surge in illegal charters that has been facilitated by the internet and interest in cracking down on that. And also enforcement in terms of anglers feeling that if there are not a few -- or more visible busts, if you will, that anglers won't take the regulations seriously. So, beef up the enforcement, has been the message.

Anything else to add there?

Mr. Sartwell: Well, I'll add that a lot of this on the right-hand column are just kind of general inputs. They're not saying put this in the policy, so to speak. The left-hand column is more of the policy-specific, but we're getting all sorts of flavors through our various input channels. And the right is more of just a hot topic in recreational fisheries right now, more than things that need to be

included in the policy.

Mr. Dunn: Yes.

Mr. Sartwell: Just to break those apart.

Mr. Dunn: Yes. What we tend to get, as Tim has said, is we'll get a couple of macro-level inputs that are really appropriate for the policy. And then it tends to become much more parochial, and -- hey, we need a bigger size limit for this fishery, etcetera, which is obviously not really appropriate for a national level policy.

So, next steps. So, comment period opened August 1st. It closes at the end of the calendar year. We have had, as I said, more than 20 in-person and/or virtual sessions. You can see the list of acronyms there. Basically, it's the councils, the commissions, the state directors, and various advisory panels like you all, the HMS Advisory Panel, and things like that.

So, we have covered the gamut. We have sanctuaries we spoke with yesterday, actually. We have multiple mechanisms. There's a website. Those -- what are they called? The QR codes at the bottom have links to sort of a specific structured website which allows you to do inputs according to those questions that we put up at the beginning. And then there's also our email address, where you can send a more freeform sort of comment.

My biggest ask for you all is that you provide us inputs. I know that is well in hand, but I'd like to you all give us sort of formal input and guidance on this.

You have anything to add?

Mr. Sartwell: Yes. I'll just add our virtual sessions. We've done three public webinars in the evenings, Eastern Standard Time, and it's actually enabled participation from across the country. We had someone call in from Hawaii last -- our last session

in November.

And there's been so much interest in those, we're working on adding another December one for general public input. So, it's been really good to not just meet with our partners, but to get fishermen to call in and provide input too. So, it's been beneficial.

Mr. Dunn: Just a very quick overview on a couple of other things that we're working on. So there are two federal interagency collaborations that I wanted to touch on. One is FICOR, and I understand that you all got an update from Sam Rauch on that yesterday, so we won't really go into that, but we are working with that. Tim actually, literally just got off a call about -- with the other partner federal agencies on that ten minutes ago.

And so, as it shows, the next significant action will be the first meeting of all the principals, which for NOAA is Janet, to get together and begin to move forward with the charter and a work plan to implement the charter.

And then we have the Sportfishing and Boating Partnership Council. That is, in my opinion, either way I characterize, it is your sort of sister or cousin federal advisory committee over at Department of Interior for Fish and Wildlife. And that's an entity which we have engaged with in the last 10 or 12 years, just in order to try and collaborate with DOI or Fish and Wildlife Service, as they have an interest in recreational fishing and boating.

Per the IJJA, also known as the BIL, which you just heard about from Carrie, it changed the nature of that FACA, or FAC, from being advisory from just the Secretary of Interior to now Interior and Commerce.

So, there is a draft updated charter which we worked on, Heidi and I and others worked on, with DOI staff. And that is in the process of being approved by both agencies. It's grinding its way through the legal approvals, etcetera, and the plan

is for that to be signed early in the year. It can't be signed until January of 2023, and then to open up for nominations.

And I guess I'll ask Heidi if there's any update beyond that.

Ms. Lovett: Well, actually, we hope to get it signed. So, we hope it gets signed before January 1. The issue is, it can't be filed before that date, so we're hoping both Secretary -- well, the Secretary of DOI signs, and in our agency, the Assistant Secretary signs all FACA charters.

So, they're both -- I think the package is already at the Department, which is great. It's gone through NMFS, NOAA, all legal, and it's just waiting. So, I'm -- I actually had email on it last week, so I'm hoping it's ready when DOI comes back to us and says, now you can sign it.

Mr. Dunn: And I'll give all credit to Heidi for having the patience to deal with all the red tape, because I cannot.

So, that brings us to the end. And I'm happy to take questions, comments, or anything else, criticisms, etcetera, and then turn it over to -- back to the chair.

Chair Davis: Thank you, Russ, for that great overview.

We do have about five or ten minutes, if anybody has any questions. And I know that Donna's following up with recommendations that will meet the deadline that you have there, so that's -- we're right on task there. But anybody have any questions?

Kellie?

Vice Chair Ralston: Thank you, Russ.

Mr. Dunn: I'm sorry, our time is up.

(Laughter.)

Vice Chair Ralston: Quick question on the angler habitat workshop from Tampa.

Mr. Dunn: Yes.

Vice Chair Ralston: What was the -- what was kind of the focus, you know, the rationale for that, and what were the outcomes from that?

Mr. Dunn: So, it was one of a series that we have done. So, we were able to, with other offices, provide funding to do constituent-driven workshops on the West Coast and in the Southeast.

So, we did two on the West Coast, one on the Eel River, and one, I can't remember the other, somewhere -- Puget Sound. And then we have one that was there in Manatee County, Florida. And there's another one being planned, I believe, for Louisiana.

The outcome of that -- so, the state, NOAA and the state and a number of, sort of, local constituents were engaged. And one of the things they did, essentially was, pull out maps of the local area and identify, sort of, priority areas for conservation and restoration of that. And that was led by a combination of the Southeast Regional Office itself, and then the restoration center folks from the NMFS side, and then their state and county folks there as well.

Mr. Sartwell: I'll just add, it was an outcome of the 2018 summit where we really hoped to get local, on-the-ground knowledge about habitat restoration.

We kicked off the series with the Chesapeake Bay. We did a Maryland meeting, Virginia meeting. They've just kind of grown out, and it really is just bringing in local anglers from an area and talking about their habitat needs and priorities. So, that's where it stemmed from. It's a model that seems to be working well, to engage locally, where NMFS can

support habitat restoration.

Mr. Dunn: And it was delayed because of COVID. So, the West Coast ones occurred prior. Virginia, Chesapeake Bay ones were like '19, and then the West Coast ones started, and then COVID came, and so, Southeast Region, rather than doing virtual, they chose to wait and do it in person rather than virtually. So, that's why that occurred now.

Vice Chair Ralston: So, when did that happen? Do you remember?

Mr. Dunn: It was --

Vice Chair Ralston: Ish?

Mr. Dunn: -- either -- it was the very beginning of November. I think it was like the 3rd or the 7th or something like that.

Vice Chair Ralston: So it was pre Ian, I guess? Yes. And then, so was it inshore or offshore habitat? Or kind of what was --

Mr. Dunn: It was probably inshore.

Vice Chair Ralston: Inshore? Okay. Thank you.

Chair Davis: Thank you Kellie, and Russ, and also Tim for your comments around that.

Meredith?

Ms. Moore: Hello. Is there -- this is a convoluted question. Is there still an intent to do regional implementation plans or some sort of follow-on like that from the national policy?

And the reason I specifically ask is because I was a little -- not in a negative way, I was surprised that yesterday, during one of Sam's updates on the EEJ policy, he said that instead of doing regional plans, they might include it -- like specific to EEJ, they might include it in the overall strategic plans for the regional bodies.

And so, I'm wondering if that is a model that other things are going to follow or if it's just that.

Mr. Dunn: No, I -- good question. No. Our current plan, and I don't really see it changing, is to develop a set of regionalized plans as well as a national.

So, in the -- what at least I have in my head right now is sort of a national one, which would be the, sort of, headquarters, program offices, and then one for each NMFS region, which would include the regional office and the center or centers that are in there.

Now, whether we put out a single document that's all consolidated, or individual ones, you know, that's just sort of the formatting question. But no, we'll have individualized, region-specific activities, plans.

Chair Davis: Thank you again, Russ, and also Tim and your staff for the great work that you're doing. And it's always a lot of work, getting out into the community and making sure that everybody is heard, so great job on that.

We're now going to move into Donna's presentation, from the great work that the team has been doing. And so, we're going to bring you over the clicker.

Recreational Fishing Subcommittee

Ms. Kalez: Turn this on. Hi, everyone. Thanks again, Russ, for your great presentation and for going through it once again.

Yes, so, our committee was tasked with the recommendations for updating the national policy, understanding that we are not rewriting the policy. We are just adding what may be missing and enhancing some of the guidelines. So, here we go.

So, our Recreational Fishing Subcommittee, there we are: myself, Tom, Meredith, Kellie, Pat, Clay, and Richard.

Here is our executive summary. So, we just

highlight these in the document, but we continue to focus and we want to focus on the socioeconomic importance of recreational fishing to coastal communities and the nation. So, we talked about this in length. It came up multiple, multiple times. We talk a lot about the fish, but not a lot about the people surrounding the fish, so we want to make sure that that's highlighted.

Next, the importance of improved transparency in fishery management, science and the processes throughout the policy, the need to incorporate and address equity and environmental justice as well as climate impacts throughout the document. We'll talk about that in the recommendations.

Recognize the outreach and engagement that needs to continue to be important, and it's a two-way dialogue. So, we're really saying that we've talked about it the last couple of days, communication. We need more communication, which will bring trust.

Next, understanding the universe of anglers. This is still a top priority to all of us, and we want to have it addressed where possible in the document. We continue to recognize this, and we know that it's really hard to define. And we'll talk about that later, also.

Next, the importance of identifying, using metrics to monitor the effectiveness of the policy. So, in 2015, the policy did not have any metrics in it, so we are recommending that we have tools to make sure the policy is being used.

And people can point to examples and use it to recognize the need for resources. For example, if we had metrics, we would be able to say that, in order to do that, we need more funding. And so that would help a lot, and we see that throughout the document.

Continued focus on sustainably managed fisheries through the impact of recreational fishing on the health of fisheries and ecosystems.

So, that's our executive summary, and now, I'll just go into the recommendations, and then at the end, if anyone has specific questions, we can go into that. So -- oh, sorry. Thank you.

Recommendations, the overarching themes. So, we would like to incorporate equity and environmental justice in the National Saltwater Policy. We've just learned from Sam yesterday about the EEJ policy updates. We recommend overall strengthening the policy to include EEJ throughout, or perhaps add a new guiding principle.

And then next, the impacts of climate change on recreational management are comprehensive. And that's -- warrant comprehensive treatment within the document. And you'll see that we could apply climate change to every single guideline, so we probably will recommend a new guiding principle be established for climate change because it hits everything.

Next, improve the saltwater recreational harvest data. We believe, to do this, we need a true national registry of saltwater anglers. Pursue strong -- I don't know what that is, but councils and stakeholders. So, we have to improve our saltwater data, and we do really believe in that national registry. And work with the councils, and stakeholders to achieve that.

Next is the using the metrics, which we talked about above, to monitor the effectiveness of the policy. Metrics express more details, actions when implementing the policy, and will result in more results that we can pinpoint. And we want to advocate, like I said before, more budget and resources. And prioritize socioeconomic data as well.

Okay, and here we go. So, these are the recommendations to the existing guiding principles. And I'm just going to -- whoops, how do I go back? Red? This one? How do you go back? This one? Luckily, we can't use that.

(Laughter.)

Ms. Kalez: Clearly -- there we go. Okay. Recommendations, okay. So, I will kind of blow through these real quick because I know that we kind of want to go to lunch. But the Guiding Principle 1 is to consider MAFAC's Marine Mammal Workshop.

Once completed, MAFAC is now developing a survey to assess all interactions with marine mammals. Once implemented, it will help us to learn more about deterrence and avoidance. So, we're still working on that survey, so it's not done, but once it is, we want to put it into this document.

Next, recognize that fisheries management approaches are foundational to sustainable recreational fisheries management. Sustainable, managed fisheries create more and new opportunities to the recreational angler.

Recommendation Number 3: more directly acknowledge the need to address ecosystem interactions like discards and depredation. Better understanding of these recreational practices will help us manage the impacts in the stocks.

Recommendation Number 4: educate anglers on resources, conservation practices to help increase their fishing opportunities. So, anglers will benefit in understanding proper catch-and-release techniques, and this will help their fisheries and conservation going forward.

Next, Guiding Principle Number 2: promote public access to quality recreational fishing opportunities. We support this guiding principle and recommend retaining this section. I would add that protecting public access to the resource is a very high priority to all of us. Examples: climate-related loss of shoreline and beach access cannot be replaced, but new opportunities should be promoted, where possible.

Guiding Principle Number 3: coordinate with state and federal management entities. We want to retain this section and examine how to better improve its outreach to and partnerships with councils and state management. So, this is just another opportunity to communicate better and improve our outreach.

Okay. Guiding Principle Number 4: advance innovation solutions to evolving science management and environmental challenges. So, as you can tell, like, climate change is going to be throughout this entire document. But the recommendations are to retain this section and develop an implementation roadmap and guidance for electronically reporting recreational fishing data for private anglers to enhance MREP and other data sources. We reference the MAFAC Electronic Reporting Task Force Report here, and it's in the broader document that you have.

Guiding Principle Number 5: provide scientifically sound and trusted social, cultural, economic, and ecological information. Recommendation to revise this section to recognize ongoing necessary processes to improve data and more directly commit to filling data gaps.

We also recognize and believe that perhaps the Agency has room to be more specific on the needs that they have in filling these data gaps, whether it be more staff, increase in budget, things like that. Okay.

And finally, Number 6: to communicate and engage with the recreational fishing public. Recommendation Number 1 is continue the regional roundtables and support other venues and programs for local engagement. Russ just talked about all the engagement that they do. We recommend that they continue to do it.

Number 2 is expand opportunities that promote two-way dialogue, mutual engagement, and engage anglers better in regulatory and science processes. Programs like MREP, Marine Resource Education

Program, I wrote that out because I don't like acronyms, work well to introduce the public to the process. Engagement is ongoing, and it comes in many different forms, so workshops, events, club meetings, etcetera.

And so, with that, those are our recommendations to update the 2015 Saltwater Policy. And if you have any questions, we can answer those.

Chair Davis: Thank you, Donna, for that overview and for the team's input. That's really nice and concise and very helpful recommendations for the guiding principles that you all are working on. So --

Ms. Kalez: Hang on, I'm sorry, I forgot. I really want to thank Gabriela --

Chair Davis: Yes.

Ms. Kalez: -- for working, for the last three months --

Chair Davis: Good.

Ms. Kalez: -- on this back and forth. I did. It was in my notes, but it wasn't on the slides, so --

Chair Davis: Yes.

Ms. Kalez: Thank you so much, because she did work with us, back and forth.

And Heidi, thanks for coming in and kind of putting all together and helping us out. But I really appreciate all the leadership and help.

Chair Davis: That's fantastic. Yes. Thanks for that acknowledgment to the NOAA staff. I don't know where we'd be without them, honestly.

So, we have time for discussion, and remember, this is an actionable item. So, depending on how the discussion goes, I was just mentioning to Donna that we can take action today instead of waiting till tomorrow, if we feel that we're concise and ready to

take action.

We're well within the deadline, which is the end of the month, but we'd like to definitely make our final vote during the MAFAC meeting. So, you'll have our recommendations because that was one of the things that you mentioned, that you're looking forward to our input.

So -- okay, I see Sara has some comments, so let's start there. And then I see Joe has his hand up too.

Dr. McDonald: Great job, guys, and thank you for your hard work. Just wanted to mention, the first one, the marine mammal work, the survey is actually finished. We are working on a PRA to try and get approval to actually survey people. So, if you want to incorporate the actual survey in the document, you're welcome to. I'll send Donna the link.

And tomorrow, we're going to be talking about how we can move forward with the PRA process by February. So, stay tuned, come to the meeting tomorrow morning. Don't sleep in. Anyway, thank you for including that, and hopefully we can get things moving forward with that, so thanks.

Chair Davis: That's great, Sara. Thanks for that input.

I see Joe, and I also see Tom.

Mr. Schumacker: Thanks, Madam Chair, and great job, you guys. Really, really well-done document. As Megan noted, it's really concise, some good recommendations.

I was going through it. I've actually got it open right now, on the Google Doc version of it. Pacific Fisheries added a comment to Guiding Principle Number 3, the recommendation for that, to coordinate with state and federal management entities, and added the words, "and local indigenous groups," to change -- to attain the goals of the

recreational fishing policy.

And I really appreciate that addition to that. I noticed that there are a lot of management agencies, and co-management occurs with indigenous groups around the nation. So, I'd appreciate that, if that was incorporated in there.

Chair Davis: Thank you, Joe, for that comment.

And Tom?

Mr. Fote: Yeah, I enjoyed working on this document. I think we did a good job, and I really appreciate the work of Patrick and everybody else, and Donna, and everyone who just sat in, to put the time in to get what this document looks like.

I think yesterday you heard part of my frustration. I think it comes from about 35 or 40 years thinking that we will be better off than when I started and seeing progress. And then there was things we couldn't do anything about, climate change, more estrogen going into the water and affecting the sex lives of fish, more pollution going into the water and basically do that.

And the only way we have of correcting those problems is through management, and as we looked at it as a commission or the council, and the only thing we manage, really truthfully, is people. And we manage fishermen, because we can't manage the really, the people, the culprits of all the things that go on. We don't manage sewer authorities and everything else.

And of course, in 40 years of volunteering my time, I find that out all the time. We're able to accomplish some things, but not the real ones that are causing the problems. And I think it's a frustration that goes on. I think that the communities are all hearing this, and the more the outreach, the more communication we do, the better off we are with those people, because we're losing a lot of them.

You know, when I first got here, state directors would stay on for 30 years, 35 years. And now it's 25 years and out because they got bald heads like me, got the first 25 years, and your hair is all gray because of the pressure and trying to deal with all these problems that they have, and that we have.

So, we're losing those people at a younger age than we used to. I'm one of the few people that were around that long and looking at it, and I've seen, like, five different directors in most states that I deal with. That's 15 states along the East Coast. And that, basically, we lose a lot of this official memory.

And we're trying to keep those people longer. And I got to help them get their job satisfied by feeling that we're accomplishing something. And a lot of times we walk away from the table, and I hear the frustration of the directors and of the county commissioners and the council members. They always say, we really didn't do nothing.

And the only thing we have done over the last -- and I know I'm being a little lengthy, but the only things we've done over the years is because we can only manage fishermen. And when it comes to recreational, you only manage through size limit.

And when you look at poor recruitment, and you say oh, we have to raise the size limit even though the stock assessment for that species says it's not based on the sporting stock parameters at a certain level and you're way above that level, but we didn't put restrictions in.

What happens with those restrictions is we start doing all catch and release and, basically, regulatory catch and release. And then we wind up with species like summer flounder, where you should have almost no catch-and-release mortality, has a huge amount. Striped bass, 51 percent of the total mortality comes from recreational catch and release. And 49 percent of the recreational mortality comes from catch and release.

And you try to explain it to the catch-and-release fishermen, you got to do a better job and everything else. They think they're doing a great job. They don't know, and we're not communicating that heat, water temperature, everything else affects that. So, that's my long-winded term, but that's why I support a document like that. It really does reach out.

And one thing I love about MAFAC, that it gets more with honest conversation than we can at council meetings and everything else because of the restriction of the regulations and the process that we do there.

Well, I figured I should clear up what I did yesterday because it was just frustration after a month of meetings, walking away and saying we really didn't do something except punish both commercial and recreational fishermen.

Chair Davis: Thank you, Tom, for your comments.

And what we're going to do now is put up the document because there's a few minor edits that need to be done. And Gabriela is going to do that for us.

I also wanted to make a comment myself. I was happy to see that you folded in the EEJ into the document. After seeing the budget report this morning and seeing that there was no traction in Congress for that, I spoke to Brian during the break. And that's really a recommendation that MAFAC can also make, is to make sure that EEJ is actually rolled into everyday work that's done at NOAA.

And so, when we get back to our work plan, we could consider how we can put that in there, along with possibly -- I'm advancing a little bit ahead here, but I just wanted to note that I was really happy to see that in the report like that.

So, Gabriela, do you want to help us through this? Thank you. Or Heidi said she can also help to guide

as well.

Okay. So --

(Simultaneous speaking.)

Chair Davis: So, okay. So there's a few minor edits that need to be done in here, but I think they're just more grammatical. Is that right? So --

(Off microphone comment.)

Chair Davis: And the one addition that Joe just mentioned to us. I think it was to add the indigenous, right. Okay. It's in there as well. So there it is on the screen, the change. So, we're actually going to ask for a motion. So, we have -- we're ready to take that motion. Who would like to read a motion?

(Off microphone comments.)

Vice Chair Ralston: Well, I'll just make it up. So, I move that MAFAC approve the recommendations to the Recreational Saltwater Fishing Policy, that those be finalized and sent.

Chair Davis: Excellent. Thank you for that, Kellie. We need a second, and then we'll have discussion.

Mr. Fote: This is Tom Fote. I'd like to second that.

Chair Davis: Okay, we have a few seconds here. So, thank you for that. We open the floor up to discussion before we take a vote. That is the only edit, just to be clear. So, any other edits, comments? Donna, Kellie?

Mr. Schumacker: Madam Chair?

Ms. Kalez: We're going to add Sara's survey as a link. But she's going to send that.

Chair Davis: Okay. The survey is going to be added as a link, so that's great.

Joe?

Mr. Schumacker: Yes, Madam Chair, thank you. Just for the acronym-challenged, like myself, there -- MRIP, M---R-I-P and M-R-E-P are separate, are two different entities. Is that correct?

Ms. Kalez: Yes, it is. Yes.

Mr. Schumacker: Yes. Just wanted to make sure on that. I see it as a --

Chair Davis: Yes, yes, yes, yes.

Mr. Schumacker: Yes. And I also heard that in the presentation. Thank you. I just wanted to make sure. Thank you.

Chair Davis: Yes. Thanks, Joe, for bring that up.

Any other discussion points? Okay, so we'll go ahead and take a vote then. So, all in favor?

(Show of hands.)

Chair Davis: Okay. It looks like it's a hundred percent approved. Congratulations. Thank you, team. That's really great.

(Applause.)

Ms. Kalez: I just really want to thank my team because Pat, and Kellie, and Meredith, they did so much hard work. And all you guys, and Tom and -- so thank you. That's exciting.

Chair Davis: All right. Kudos to MAFAC, so there you go. So we'll be drafting a letter, and then sending that off.

So, we are actually now ahead of schedule. And so, that's really awesome. We're eight minutes ahead of schedule, and we also made an action a day ahead of time, so.

UNIDENTIFIED SPEAKER: You have eight minutes of comments, if you want.

(Laughter.)

Chair Davis: Tom, you have your hand up? Or that was from before?

Mr. Fote: No, I want to know how the dinner -- since I couldn't make it down there because of my back, I want to know how the dinner was last night.

UNIDENTIFIED SPEAKER: Oh, can we listen now?

Chair Davis: What's that?

Ms. Schumann: Yes. Can we listen to the --

Chair Davis: Oh, that would be great. Yes. Let's do that. Yes.

Ms. Schumann: All right, Tom. We're going to give you a little flavor of what you missed out on, not a flavor you can taste, unfortunately, which was pretty amazing, the food we had, but an audio flavor.

So, the two fishermen who spoke last night, Lucas and Jake, were two out of the 39 young fishermen that I interviewed through a Northeast Fisheries Science Center-sponsored oral history project, from Maine to North Carolina, to understand, sort of, what motivates them to be in the fishing industry and how they're making it work against the odds.

And I'd like to play two audio montages that were created, that I created working with Molly Graham, who manages NOAA's Voices from the Fisheries Oral History Database. You can read the full transcripts or listen to the full audio of all of the interviews on Voices from the Fisheries.

But these montages sort of are going to create a glimpse of a couple of recurring themes that were common across all 39 interviewees. The first one is called, "A Special Kind of Person."

(Audio played.)

Ms. Schumann: And the next one is called, "Solutions to Graying of the Fleet." And in this one,

it's a little bit longer and more thought-provoking, I think, especially for MAFAC, as we think about what we can do to support workforce development in the next generation and seafood resilience.

And so, these are some of the ideas coming directly from the youngest among our commercial fleet on the East Coast as to what some of those solutions should be.

(Audio played.)

Chair Davis: That was really super.

(Applause.)

Chair Davis: So, let's see. We -- oh, I see lunch is at 11:45, but the recreational was supposed to be done at 12, so. Okay.

So, what's your recommendation for the lunch period then?

Vice Chair Ralston: To go to 1:15, when science --

Chair Davis: Okay. So let's try to be back at 1:15. We have Cisco that's coming right after lunch, and then we have the working group on the -- oh, excuse me. Let me see. Oh. We'll do the work plan. I put together a PowerPoint for that, based on our comments from yesterday and input from NOAA staff, Heidi, and Gabriela, and Jennifer.

And then we'll also go into some subcommittee work after that. So, we got a good afternoon ahead of us. Enjoy your lunch. See you back around 1:15. Be great.

(Whereupon the above-entitled matter went off the record at 12:00 p.m. and resumed at 1:36 p.m.)

Chair Davis: Good afternoon. I hope you all had a good break, a good lunch, and we have a great afternoon planned, as well. I also want to give you a little bit of a heads up that Dr. Rick Spinrad is in the meeting that's just down the hall. He just stepped in

a minute ago, just to say hello to everybody, or to say hello and acknowledge MAFAC.

But he'd like to come back and address the group, so whenever he has that moment to come in, we'll stop what we're doing. And as you all might know, he's the Under Secretary of Commerce for Oceans and Atmosphere, and also NOAA Administrator, so quite exciting that he came in to recognize us already.

And so with that, can we -- we'll move forward. Okay, so I'm really excited to have Cisco Werner with us, the Director of Scientific Programs and Chief Science Advisor. We missed you in Puerto Rico. So we're happy to have you back in your position, and reporting out today with us. So, thanks for being here.

Dr. Werner: Thank you, Megan, and indeed it's great to be back, and meet a whole bunch of new people as well, so it's --

Chair Davis: Would you like an introduction?

Dr. Werner: We can -- maybe over the break or something. That'll be all right, yes. I'd love to meet up with folks.

And yes, it -- I'm sorry I missed Puerto Rico. I had a whole talk lined up on the sargassum, but I'll have to give it to you some other time.

(Laughter.)

Science Update

Dr. Werner: You know, it's only 56 slides or something like that. So, but I'll leave it for another day.

So today, I'm just going to give you some science updates on the fishery side. And as I was talking to Pat, we really are at a really transformational moment, and I don't want to trivialize that word, because it's used a lot.

But it's really a moment where we're transitioning in a lot of different areas in our science, and understanding what's out there, and measuring what's out there, and translating the measurements to projections, and also how do we communicate all that's happening, you know, to the folks who need to know what's happening.

And at the same time, there's an opportunity, through IRA, through BIL and such to actually act on these. And so, same as I was talking to Pat, I'd been talking to my folks, and saying, five, ten years from now, people will look back and say, you guys did the right thing, thank God, or boy did you blow it.

And so, you know, it's -- there's no pressure here in terms of making sure that we get it right. And it's -- really, we're taking this quite -- I mean, it does give you a little bit of pause here, just to make sure that we do it right.

So, these conversations are all helpful to us, to how to make it right. If we're not asking certain questions, or not thinking about certain things, this is -- you know, please be candid and frank, not that you ever aren't. But, you know, please let us know how to proceed.

So, I think I control this. Is that right?

Vice Chair Ralston: Yes.

Dr. Werner: Okay. So I thought about how to start, and really this slide has two things. One, the concept of stationarity versus nonstationarity, and also, how do we look at into the future.

And interestingly, at the SAB, the Science Advisory Board meeting next door, both of these topics came up. And the question was asked to Fisheries, Janet and me specifically, are you guys thinking about, you know, the fact that we're not in a stationary system anymore, and what are you doing about it?

And curiously, this was my opening slide, that first of all, the picture on the left, the X-axis, which is hard to read, is a thousand years. It's not ten years or anything like that. It's the temperature in the Northern Hemisphere in the last thousand years.

And it seems pretty flat for a long time, until roughly the industrial revolution, and then we all know that warming happened. And that has basically put us in a completely different regime, which is one where yes, there's wiggles, but on average it's flat, to yes, there's wiggles, but on average it's not flat.

It's changing in a number of ways. It's changing its slope. It's changing frequency of events, magnitude of events, etcetera. So it's a very different regime in which we're in, this nonstationary regime.

And the picture on the right simply says how we used to manage deterministically. We used to say well, you know, we can try to give you an answer of, you're going to have so many resources, or we anticipate so many resources being there for you, and plan accordingly.

Well, the picture on the right suggests that we need to also think differently as we enter this nonstationary world, in terms of managing for variability and nonstability.

And so the whole way that we ingest information and say what are probable outcomes of things is something that we're going to have to work on, not just again on the science side of assessing what might happen, but also how do we communicate that, as I said, to the decision makers, and in turn, the decision makers to the people who need that information, you know, to act on.

And so, it's a pretty fundamental shift in our science, in our advice, and also, how do we pass on that advice to folks who need it. So that's what I mean about, you know, where we are, transformationally.

And this is a quick example. You're all familiar. So we know that the impacts, picture on the top left, has to do with Pacific cod shifting, over a period of whatever, eight years there, several thousands of kilometers, depending on the occurrence or not of the cold pool, which is that, sort of, the pinkish region at the bottom, I mean at the bottom of the shelf.

And so, this is, these are, you know, shifts that are unprecedented, again, thousands of kilometers in ten years. It's a pretty, pretty, pretty daunting shift. We know, of course, of the crab situation, the red crab and the snow crab situation up there, so it's not just shifts, there's actual declines in abundance.

The picture on the right has to do with shifts, in this case of the North Atlantic right whale as a result of shifts in the food web, or at least in the zooplankton that they eat.

And moving up into the Gulf of St. Lawrence and such, the picture on the bottom left has to do with perhaps increased occurrence of red tides and such, which in turn, in some places, can affect recruitment. And this is off, you know, the West Coast of Florida, I think, having to do with recruitment of certain groupers, depending or not on the presence of these red tides.

And of course, the last one, the picture on the bottom right is sort of an indirect effect of the presence of offshore wind farms and such, in response again to our ability as a society to deal with changing climates. So all of these things are impacting our living marine resources.

And so therefore, you know, we're moving from, boy it'd be nice to know what are these, what all these different expressions of change are, to actually we need to know what they are. We actually need to be able to include these oceanographic, ecological and other nonstationary things that are happening, and what we're doing.

And in today's discussion, I was going to talk about a couple of things. First, how do we collect data, you know, to actually be able to continue to do what we're doing, in the short term, and the challenges and opportunities you will have there. Also the consideration of longer-term climate, oceanographic and socioeconomic projections, in terms of how we move forward.

And there was an example from the North Pacific and the Alaska project, an Alaska project which I may have talked to you about before. And then finally, the establishment of this Climate, Ecosystem and Fisheries Initiative, which we've been working on for about three years if not longer, but we think we have the opportunity, through IRA to actually implement it, and I'll close with that.

So, a little bit on the models, and this is sort of a rationale for why we need to think different. During that stationary period, when things don't change in the environment, you can -- and you can assume certain constancies, and it allows you maybe not to include it explicitly.

And that's kind of what I meant about shifting from, it would be nice to know, to now we need to know, because in general, you know, these living marine resource management models and such really didn't include the effect of long-term trends or regime shifts and such.

There's some inclusion of, how do you include year-to-year fluctuations, perhaps with a little bit of auto correlation, meaning, you know, some time component to it, not totally random. But there is a, basically an assumption of what we did as, you know, rebuilding, assuming prevailing environmental conditions, and that's that third bullet. And prevailing environmental conditions are not what we expect to be happening.

And so, we need to -- this is an example here. This is just a setup of where we need to go, in terms of taking an approach which is more using these MSEs,

which are management strategy evaluations, which allow us to pose what-if questions into what might happen, depending on whether, you know, whether we're talking about changes in environment, what might happen in terms of how we manage the, you know, our populations and such.

And so this is, again, the part about moving from nice to know to needing to know. These are now things that we actually have to be explicit in terms of how we do, and I'll talk about that at the end.

And so, summarizing this first opening part is that we really are at a pivotal part in fishery science. Climate change and nonstationarity are pretty evident. You know, and the greater the nonstationarity, the harder it is to predict these future changes, you know, requiring perhaps even more monitoring of what's happening.

We also know that changes are taking place in traditional and emerging use sectors, the offshore wind, aquaculture and so on. And so that also affects how we collect data, as how some of our ecosystems may be affected.

And then ultimately, you know, we need that data. We need to come up with a new way of collecting data, or expanding the way that we collect data, to really be able to engage in sustaining our fisheries and protecting our resources.

And so that what I'm going to talk now about is now two parts. One has to do with the data that we need, and what are we thinking about how we approach it. That'll be the next few slides. And then after that, I'll talk about the climate ecosystem and fisheries initiatives.

So, data first. You've probably heard the expression, without data you're just a person with an opinion. So, we're -- how do we actually collect that data and where are we? What are the challenges, and then how do we translate that into our models?

So a while back, I may have spoke to you about something that I referred to as the Next Generation Data Acquisition Plan. The last time NOAA Fisheries had a data acquisition plan was in 1998, and arguably, it was very successful.

That plan, you know, came up with how many white ships we need, how big they needed to be, what they needed to collect, how many people were needed, you know, how many labs were required, and so how quiet the ships needed to be, and so on.

And it was successful because, you know, we really were able to, you know, solve, if you will, a lot of the over fished stocks, and we brought in management approaches that allowed us to have a lot of, recover a lot of the species that again, 20 or 30 years ago, maybe were not in the condition that they are now.

So that data plan was arguably quite successful. So the question is, well why do we need another one? And the answer goes back to the opening slides, is that everything changed. The ocean changed. The things are -- you know, things are in places where they're not, where they didn't used to be.

We need to sample in more places and more quickly. And also the way that things are connected, the food web, the energy balances and such are different. So we need a new way of assessing this ocean so that we continue to be successful in terms of what we do.

And so, we engaged with a private firm to help us with this NG-DAP, the Next Generation Data Acquisition Plan. And we just received, maybe a couple of months ago, their final draft report. And we're just evaluating it now.

They were able to go out, and they did a lot, a number of surveys. Maybe some of you were involved. There was a number of workshops that were involved. So, they contacted over, I think they said over 400 people, both internal and external.

And they came up -- in some ways, it was not surprising. They came up with a long list that says, basically you need everything. And so, you know, they said look, the recommendations included uncrewed systems, automated sampling, remote sensing, acoustics, molecular tools, etcetera.

And we kind of knew that, but in some ways it was good to get that verified. You know, I'm simplifying. There's a lot of good information in this report that we got. But now we have to again, translate this into something that will allow us to generate this new Next Generation Data Acquisition plan, you know, 20 or 25 years after the one that I talked about before.

So, we're working on this, taking these recommendations. As I said, some of these recommendations in some way solidify what we thought. There's some new ideas here that we need to include. But there's also, where are we now? And this is a real challenge, in terms of where we are now, in terms of our sampling capability.

And I'll just go through these, you know, in order here, is that we know that we need more data acquisition capabilities, for all the reasons I just said earlier. Unfortunately, we've had a shrinking number of days at sea, down from -- down about 60 percent from 2015. And this has been a result of a number of things, aging ships, you know, COVID.

Take COVID out. I'll take COVID out. I mean, COVID was -- there was nothing you could do about that. I mean, that was that -- if you look at the histogram there at the bottom, bottom right of the figure, that low point there is COVID, and there was nothing you could do about it.

But if you look at the others, you can see there has been a decrease in terms of our ability to go to sea and collect data. That's where we are now, but the third bullet there that says, three of our eight vessels will have reached their end-of-service life, which means that they could be decommissioned by

2030, and these are because they're over 50 years old.

And so they've way outlived, you know, where -- their design. And so, we have three ships that, if they go out, we need to do something about it. We either, you know, do work with, you know, take -- you know, work with the chartering, charters, new advanced technologies, etcetera, but this is a easy-to-see sort of alarm bell going off, in terms of being down these vessels.

The Class C vessels is a fisheries vessel, so it's able to do a lot of what our current white ships do. They're a little bit smaller, by design, because we want them to be more nimble, and we want them to be faster, in terms of where they can go to, and perhaps going into shallow water and such.

So, it kind of -- they would be complementary to our current white ships, which are referred to as a Class D, as in David. These are the Class C, as in Charlie. So the Class C replacements, perhaps for those end-of-service-life three of eight vessels is it. The evaluation of building them, and schedule is under way.

Depending on how you look at it, it could be anywhere from the mid 20-30s to the -- to 2040. I mean, it could be a ways before we do this, but this is something that we're discussing now.

The advanced technologies are really promising. And I'm going to say, if there's a silver lining to the challenges that we had in COVID was that we were actually forced to do things that we weren't ready to do. Or at least we thought no, we can't do that yet, we can't do that yet, but we had to dive into the deep end of the pool, and it worked.

So there are some really promising things, but it's not quite operational. And of course, you know, there's also the whole aspect of, with all these new data collections, different ways of collecting data, you know, different ways of analyzing, through

artificial intelligence, machine learning, etcetera, it also means, how do we calibrate with, you know, things that we used to do with the things that we might be able to do in the future.

So this is a challenge also. You know, how do we transform our ability to use all this data in a way that we can still use it the same way as we did before.

So, maybe this has already said it, you know, our future survey enterprise will require innovative technologies, will require diversifying our platforms, will require modernizing our fishery information, collection, management and dissemination. So all that data needs to be modernized as well, the databases and how do we distribute it and such.

AI, machine learning capabilities really are changing things. And there are some really nice examples of success of this. Pacific Islands had just a really remarkable success of using some of these methods in some of their data collection for stock assessments.

And then it's also the next generation analytical and modeling tools. So again, there's a lot of things happening here. I don't want to say we're building the airplane and flying at the same time, but there's a lot of things that we're trying to do while we try to keep things going the way that we know and understand, to where we know we need to do differently and, you know, for the reasons I mentioned.

And so, real quick, in the short term, we realize we need to sustain our current strengths, you know, because modernizing is going to take a while. And it's also requiring us to think differently about how we plan, prioritize and manage our surveys.

You know, this is a -- it's interesting, you know, that all of these things, whether it was climate, whether it was COVID, whether it was the ships, you know, not becoming -- or becoming less available were

disruptions to the way that we did things.

And I think, none of -- and I don't think -- I would say it's fair to say that we weren't ready for these disruptions. And so it's caught us off guard. It's something that I actually, next year, or this coming calendar year, I'd like to have some kind of discussion about, you know, if disruptions happen, if future disruptions happen, how do we avoid future tripping over some things that we perhaps could have thought about, should have thought about.

And so that speaks to how our power to organize, and that's that third point, right, about how do we plan, prioritize and manage what we have, given that, in quotes, "disruptions happen."

So, real quick on these three, the first one is sustaining, short term. You know, we did get -- we were able to successfully get a little bump up of about 8 million in FY 22, that will allow us to restore and sustain some of that capacity that we lost -- this is the same histogram on the previous plot, to try to build up, you know, through -- you can see there's an increased use of charters.

As you can see, that's kind of, that's going up while the white ships return. The lighter blue, you know, were going down, so we're beginning to balance how we offset, you know, the use of our white hull ships with the use of charters.

It also, this 8 million gives us a little bit to continue advancing some of our advanced technology initiatives, and also increased staff proficiency. This is -- again, it's a new world, and need to train the people that we have as well as bring in new people, you know, to help us with these new capabilities.

The second point was modernizing, and again, I touched a little bit about this. You know, we require a suite of new operational approaches, the NG-DAP. The fleet recapitalization is what we're working on, NOAA wide, with how do we update, or how do we recapitalize our fleet.

And this is something that's not particular to fisheries, but I pointed out, you know, where we're challenged, but it also involves National Ocean Service and OAR. We're in the middle of a recapitalization. The data component, and then also, how do we translate this into assessments that help, you know, ecosystem forecast and the societal needs.

And then finally, I mentioned a third thing, which is our survey management program. And I think earlier this morning, my understanding is that there was a mention of the NAPA, the National Academy of Public Administration. There was a review of Fisheries.

And one of the things that they recommended was elevate the national program management model, you know, in terms of really being a little bit more quantitative and deliberate about how those cost analyses, prioritization, identification of emerging gaps happen.

And so there's a, sort of like an internal restructuring of how do we approach this. And it's fair to say that probably most of our meetings in the last year or so, in our Science Board, I would say, easily are over half dedicated to surveys.

Because something that just used to happen, surveys just happened -- and I'm talking about even when I joined NOAA, which was 2011, '12, '13, you really -- we didn't spend a whole lot of time talking about surveys, because they just happened. I mean, there was sort of a like a well-oiled machine that happened.

But as I said, and as the graph shows, there's just been a real challenge with maintaining the surveys, going forward. And so this is now elevating, like the NAPA report said, the whole survey enterprise, if you will, to a new level.

And so, where we're going to, we're moving from the present state, which we rely on the white hulls,

the white ships, you know, our NOAA ships, to diversifying our portfolio. You know, just go to the green. It's probably easier.

You know, we need platform flexibility, we need to increase the operation of advanced tech and new research and development, and also, you know, how do we actually then go to management to identify, either to identify assessment gaps or to provide that information that management has needed. And we need the strong national coordination and accounting.

So that's, you know, in a nutshell, where we are in terms of the observation and survey capabilities. And I think it's a pretty honest assessment of the challenge that we have, as well as the opportunities that we have.

And I'll go now to, really quickly, to the CEFI, because this is then, how do we go forward, right. What is the CEFI going to do, CEFI being the Climate, Ecosystems and Fisheries Initiative.

And what it -- what we're -- as I said, we started working on this maybe three, four years ago, in particular together with OAR, Oceanic and Atmospheric Research, which is where I spent, you know, the six months before coming back here, because they're the ones that develop these climate models.

They're the ones that have, you know, the longer-term forecasts of what might be happening, in a way that we can ingest in -- hopefully we can ingest in some of our fisheries management approaches.

And the idea of a CEFI is to provide, as it says there, provide a capacity for sustained provision of regional ocean and climate information across a number of management time scales. So not just short, one to two years, but because things are changing, we probably want to start thinking about five to ten years out.

So what's happening five to ten years out? At least have a sense of what might be going, because that in turn obviously impacts, you know, the kind of investments that you might make, the kind of decisions that you might make, whether you're, you know, a fisherman on the water, or a processing plant or something. You need to know and be able to anticipate what might happen on these time scales.

And so we need to have this national capacity to translate this information to improve management and stakeholders decisions. That's our goal in this. And I just -- this is the same figure I had before. And we're at this point where we're shifting from being deterministic, you know, the single line, to being a little bit more probabilistic, or at least begin to think about projections of what might be happening in the future. Again, a pretty fundamental way of change in terms of how we think.

So, where we are today is the numbers on the left. Just look at the ones on the right. With CEFI, we hope to be able to provide these regular delivery of ocean forecasts and predictions, which we haven't done, at least not from the standpoint of management of living marine resources.

We hope to have operational delivery of ocean forecasts and management advice. And this is -- I'm talking about between now and the next five years, is roughly the time scale that we're talking about.

Capacity to use this climate-informed advice to reduce risk, increase resilience, you know, to be able to understand what might be happening and know, not invest everything in the wrong place, so to speak.

The link to human dimensions is critical, of course. This is something that, for a long time, hasn't been as explicit as it needs to be. A lot of the things that happen, happen because we make decisions, and so that link to the human dimensions need to be

explicit.

And then the improved planning for extreme events and longer-term changes, and again, you know, the examples of the crash that happened with the crab up in Alaska comes to mind. Boy, that was an extreme event. Could we have thought about this, should we have thought about it? What would we have done if we -- you know, how would we have thought about it if we tried to anticipate some of this?

So the CEFI is really a forward-looking effort, that it's not just science. It's intimately tied in to the translation of science into management, and advice.

This is a busy slide, and I'm going to go through it a little bit slowly, but it's relatively straightforward. And it's just to say, so what is an example of a CEFI? And there's an example up in Alaska called the Alaska Climate Integrative Modeling Project, the ACLIM.

And if you start on the top left, you can -- you know, we've all seen IPCC scenarios of what might happen under different scenarios. And so it starts there. We know that, you know, there is a physical environment that's changing, and there is a range of how it might change.

We don't know exactly how it's going to change, because a lot of what's going to happen in the future depends on how we decide how we're going to deal with fossil fuel emissions, and so on. And so our own behavior is part of these climate scenarios.

Connect that with what's going to happen to the ecosystem. Well, that depends, obviously on how different parts of the ecosystem which we don't fully understand yet might react differently or at different rates to the changes that we see and the physics or the biogeochemistry.

That's that second circle. And then, the little boxes at the bottom say well, we can have different levels

of detail in terms of, you know, how we represent the ecosystem. Some things are better at representing and capturing some aspects of the ecosystem than others.

So again, there's a whole scenario of -- I'm sorry. There's a whole range of possible outcomes that might come out, or the responses that we might see, depending on starting from the top left circle, cascading through the food web, all the way, say up to fish, including possibly fishing fleets, in terms of how fishing fleets might react to what they see.

And so what happens is that these are -- then the top right picture is sort of a classic cartoon or sketch of what's referred to as a management strategy evaluation, which is, you start off asking what-if scenarios. We all have, in the top left circle there, you know, our rendition of what the ocean looks like.

There's different use sectors, fishing, energy, you know, transport, etcetera. We need to make decisions about how we work within that ocean, that now is, you know, has multiple sectors working on it.

And those decisions, depending on what we do with how we manage those decisions, you know, it'll then result in different scenarios in terms of how we can allow for certain things to happen, or how do we share those, that multi-sector ocean, right.

So this is a formal process. I mean, it's a little bit complicated, but it -- once you spend a little bit of time on it, it's actually pretty straightforward. What if, what if, what if, what if, and then you come up with a way of categorizing the different possible outcomes, from the natural variability to the decision making. And that allows you to make decisions in this multi-sector approach.

And then the bottom right picture with the fish on it just simply says, well under different scenarios, you can have different, you know, levels of population,

and so on.

And so this is what's happening in Alaska. This has been a quite successful approach. In some ways, it's been academic, in the sense that it's not necessarily fully ingested in the management process.

But it does allow for really -- you know, to begin to look at quantitative assessments of what might happen, that then on top of it -- I'm sorry, I'm not going to have too many more wiggly lines -- will allow you to say well, if you were to manage for ecosystem-based fishery management caps, in terms of what I think the carrying capacity of that system might be, and I want to set a catch limit or something that is not single species, but multi species, what would happen? How long can the resource last, depending on different management actions?

And so, this is -- the reason I'm showing this is because it gives you that new sense of, how do we think about things differently, not deterministically.

But because we know things are changing, because we know things are nonstationary, how is this going to possibly change in the future, and then translate this into, how do we collectively, the science, the managers, the communities that depend on it, you know, the coastal communities and such think about what possible alternatives there are out there.

So that's the Alaska example. What CEFI wants to do is wants to be this national, and so we're going to expand this approach, to include not just Alaska but the West Coast, Pacific Islands, East Coast, as well as there's a Great Lakes component as well.

And the idea is to -- again, the top left of -- I mean, the left picture is just basically the ACLIM thing. But the idea is to then generate these grids, if you will, these computer representations of that ecosystem and that physics, that climate, in different parts of the, of our coast, at a national level, right.

And the idea is then that we would have, in each one of these five dots that we had out there, we refer to them as decision support teams. And they would be working cross line office -- it's again, it's quite exciting as well as complicated -- working with the folks that generate the climate forecast, to the food web forecast, to how does this translate into fish, etcetera.

And we can begin to look at, well how does habit change or, you know, where are species' distributions and projections? Or the ecosystem forecast, you know, how is that affecting, you know, the general food web structure, if you will? And you might even think about, you know, can we start talking about possible tipping points, and thresholds that we would look at.

And so at each one of these centers, we would have expert teams, and this would be a very cross -- the idea here is that this would be very integrated across programs and partners, and ultimately, you know, work, using open science frameworks to generate this new way of thinking about our, the resources that we manage.

And then, so where do we go? Again, the picture on the left is the exact same cartoon that was in the previous one, but then this then would allow for scenario planning, stock and risk assessments, rapid responses if, for example, there is harmful algal bloom outbreaks and things like that, consultations, management strategies, etcetera.

And it would impact a number of mission areas, if you will, within NOAA. You can imagine that this is something that is relevant to fisheries, to aquaculture, obviously protected species, habitat and so on, and all the way to international activities.

So this is not something that we're just thinking about here but clearly this is a -- actually, when we talk to our folks overseas, this is something that they're quite interested in participating as well.

Almost done. Couple more slides. And the point here is that this isn't a one-way discussion, right. It's a double Möbius strip, if you will. It starts on the left, with the science and development, which I've spent most of my time on. But there's obviously an infrastructure part, about just how much compute power and generation portals, and how do you get this information out.

And we're, for example, working with anywhere from other line offices to we had a meeting with Microsoft a couple of months ago, with Dr. Spinrad and so on. And they're very interested. So there's private industry also interested in participating in this information dissemination, or compute power.

And ultimately, the extension and engagement, you know, how do you develop those decision support tools, and how do you take this into, you know, move it into a way that we can make these new ways of thinking and new ways of decisions that are offered, and back, right.

Obviously, if something is not working in one direction, we get that feedback and fix it. And so that's the idea here, that this is a continuous conversation, particularly in the development stage, which as I said, in the next four or five years or so.

So how do we do it? And this is my last slide. And I talked about this before is, you know, we have to continue doing what we're doing. We can't just all of a sudden shift from what we did to oh, now we're going to do the Climate Ecosystem and Fisheries Initiative. That's a huge jump.

So I think that one of the approaches that we might take, and I refer to this as shadow assessments, is continue doing what we're doing now, which is an understood and robust way of thinking about it, with all of its, you know, challenges and so on. But we understand what we're doing now. We've had 30 years or so experience with it.

But perhaps work under the shadow assessment

approach, which is -- let's say we begin to implement the CEFI, and we say well, under the normal, or the established approach, this is what the assessment would say. If you included all these other things, this is what the answer would be.

And in this case, this is an example of single species versus multi-species assessments. And it doesn't matter which one is which. The point is that there is a difference. The point is that depending on how you do it, you might have a difference.

It'll take a while to understand which one's right. I mean, that's the other thing, right. I mean, we -- you can say well, this is what comes out with one approach versus the other. It takes a little bit of time. So I would assume that it's not -- this will not be an event. It'll be a process, right, as we go from the, sort of, the tried and true way of doing things to this evolving approach that, by necessity, includes more.

And this is something that would be discussed with councils, with commissions and so on, how do we bring both of these bits of information together, first as an information piece, but eventually to incorporate, as we begin to trust this a little bit more, as something that we would use.

And I think that's it. I know I probably went too long, but as I said, this is about as transformational as can be. And I tried to say, what three points can I say? One, the stationarity -- nonstationarity is here. We need to go from nice to know to need to know. We need to evolve how we collect data, and then we also need to evolve how our advice takes place.

And with that, I'll -- I mean, and I'll just say, we are hopeful that IRA will allow us to do this, and give us at least a five-year, four to five-year bridge to begin to do all the things that I talked about here, and make these advances.

All right. So I'll stop there, and open for any

questions or comments, comments in particular, if you, as I said, let us know what we're doing right or wrong, or not thinking about. Thank you.

Chair Davis: Cisco, thank you very much.

We'll start with Matt, and then Pat, and then Meredith.

Mr. Upton: Thanks, Cisco. I always look forward to these presentations like that, highlight of the week for me sometimes. I have a few questions, but I'll just start with the first one.

So, in terms of surveys, you highlighted few times, that's a challenge, and I know we've spoken about this in the past. And this is something I've been pushing with the Alaska Fishery Science Center, is to have either winter surveys, or another way to potentially do it would be to have, kind of, quarterly, shorter surveys.

Because it seems like right now, the focus is on just this 100-day, 90-day summer trawl survey, which I think is kind of putting all your eggs in one basket. Especially, one of the things we're seeing is that a lot of direction towards what's going on in the winter, when the fisheries are happening, or at different times of year.

So, I just have never really been able to get more than, oh yeah, that's something that could make sense. But like, how do we kind of get the next step with that idea, or related, to have protocols that different vessels could follow to do a, you know, test tow. Like okay, this is station that we want to get.

And we could use vessels of opportunity, because it's this kind of lame joke, but works for me, which it would be if you would do school funding based on how many kids were in a playground during the summer. It would look very different than if you actually were to count the kids going to school during the year.

So, I don't know. It's just how we can get the surveys to happen when the fisheries are actually happening. I think that would increase a lot of confidence in them. So I don't know if you had any new thoughts on that, but that's why I always try and --

Dr. Werner: So if I understood you right, you're saying that some of the sampling is focused -- it's too long in the summer, and missing some of the data that could be there in the winter time. And two things come to mind. One, I assume that we're getting some of that data from the fishing industry as well, right, I mean that we can -- that we're ingesting that data. Is that correct?

Mr. Upton: That's correct. The problem is, is that it doesn't really drive a lot of the models. And so, I mean, we'll dig in to the stock assessments, and then the fisheries data is just kind of, like usually a footnote.

I think what really needs to happen, for example, for crab and groundfish is just an actual winter survey. It could be a month long, it could be a few weeks long, because it's really during that Q1 where a lot of the major fisheries are happening. And it's very different than the middle of summer.

I mean, during the middle of summer, when the trawl surveys are happening, a lot of the major fisheries aren't even occurring.

Dr. Werner: Yes. Yes, and I think if we --

Mr. Upton: So, it's just, it's hard to extrapolate out.

Dr. Werner: Yes. No. It'd be something to bring up, as with everything, right. Since everything is time series, right, if you disrupt one, then you -- so the idea is here, how do you do both, right? How would we be able to continue what we're doing, and not break that up, but also pick up this missing part.

And I presume, I would say that -- well, let me talk to -- first I would talk to Bob, although you've

probably talked to Bob Foy already about this. Is there -- and find out if there is a challenge about going out in the winter time, other than the obvious weather challenges and so on.

But can we combine the on-the-water data collection that we might do in partnership or cooperation or collaboration with the fishing industry with perhaps some of these advanced technologies that might give us a little bit more?

I know that they're currently investing in these, again these uncrewed systems called DriX and things like that, that might allow for some, although I'm not sure if this is the kind, the right technology for the fishery that you're talking about. So that's the other question.

But given that everything is, you know, in flux right now, that might be a place where these Class C ships -- this would be a good argument for these Class C ships that are more nimble and can do things that we currently are not doing, and we should be doing.

Just at the time that we need to be doing these things is when we're losing some capability, on-the-water capability. So another part is that because we're losing on-the-water capability, then those surveys that have been there forever are perhaps weighted a little bit more. And maybe we need to revisit whether that's the right weighting. But I think it's a good conversation to have, Matt.

So I didn't answer your question, other than I can see a number of ways that we could try this, in the short term, and not wait till if and when we get these other ships.

Mr. Upton: Thanks. That's -- you know, that's helpful. I think the key response would be that I think the, you know, dropping buoys, or Sairdrones, like that's exciting, but I think what the industry would probably like to see is just a similar, more of a trawl survey that happens in the winter, or a pot

survey, with a focus on crab.

Dr. Werner: Okay. On crab?

Mr. Upton: Just, I mean, you could -- crab, and groundfish. And so --

Dr. Werner: Yes. That might be hard for some of these advanced technologies to do. So that kind of shifts the weight to the ships, and yes, and the advanced technologies. Yes.

Chair Davis: Thanks for that, Matt and Cisco.

Pat, Meredith, Joe, Clay and then Jocelyn.

Dr. Sullivan: Great. Thanks, Cisco. It's always great, as we've been saying, to have you here and to see what's going on. And contrasting this with some of the previous talks is very, it's much more proactive, like this is what we're going to try to do to fix the issues that we address.

I have three comments, and then a question, and I'll be brief, in terms of how these come through. One is, with the Climate, Ecosystem Fisheries Initiative, that's great. We were just talking before we -- how I really wanted, was thinking that it would be nice, since we're part of NOAA, to get the climate thing sort of more integrated with what we do in Fisheries. And it sounds like it's going in that direction.

So that's -- you know, we have the advice sitting right there. Let's make use of it. And it's more than, you know, can I borrow your, you know, current data --

Dr. Werner: Yes.

Dr. Sullivan: And then I'll put it in my model.

Dr. Werner: Yes.

Dr. Sullivan: Actually talking with one another is pretty terrific. Second, I was happy to hear earlier

about the work that will be going into the wind generation, and how it will be taking some of the burden off of the, like the stock assessment scientists and others who have been asked to sort of carry that burden for a while. And that's a great relief to me, to know that that's opening up some possibilities there.

Sort of a technical comment on AI, it's great for prediction, it's not so good for interpretation. And my major concern with all of the AI folks that I've interacted with is, they don't seem to have any background in statistics.

So, you know, sort of thinking about where the data is coming from so, you know, we go to try to predict what's happening with high tech, but we don't recognize that we are basing this on old white males, right, and trying to predict what's happening with females, people of color and young people.

So, I don't think anybody thinks about this until it's too late. So that's a useful thing to think about.

Finally, my question, we were talking about, earlier, the modifications that might take place to the national standard guidelines. And it sounded like mostly it was oriented towards environmental justice, social sciences and so forth.

I didn't hear anything about rethinking the science part of it, in particular, MSY for example. You didn't mention that at all. And --

Dr. Werner: I didn't. But it's not because it wasn't there. It just didn't make it onto the slides, but it's very much on there, you know -- I'm sorry. I didn't mean to interrupt.

Dr. Sullivan: No, no. You see what I'm --

Dr. Werner: Yes.

Dr. Sullivan: -- going with this, right?

Dr. Werner: Yes.

Dr. Sullivan: Our entire management system is built around that.

Dr. Werner: Yes.

Dr. Sullivan: And it's hard for me to imagine not having it built around that. On the other hand, we're already seeing changes in productivity. If we manage as if the productivity is going down, which typically means harvesting harder, because they're going to die faster.

For cod, I use this example, and some people don't like it, but nevertheless, here we go. If we look at cod in New England, it's kind of acting like a herring now. If we treat it like a herring, then we should harvest it harder, because we should be capturing it before it dies.

But if the climate were to go back and allow them to sort of return, then we would be keeping them in the herring box because we would be harvesting them so hard.

Dr. Werner: Yes.

Dr. Sullivan: So, this idea of productivity and how it relates to MSY and so forth, kind of gets complicated with the nonstationarity element.

Dr. Werner: Yes, yes.

Dr. Sullivan: And it would be nice, hopefully -- I know a number of people are trying to think about this, how we change our management style --

Dr. Werner: Yes.

Dr. Sullivan: -- relative to these kinds of things. And part of me is wondering, what are we thinking about that, going forward. And number two, is there anything we can put in the guidelines that would -- or change the law, that would help us to think about this more proactively?

Dr. Werner: Yes. And that, I think that phrase

there, prevailing environmental conditions, that I had there before, I think is taken out of the NS1 guidelines and so on. And that has to change. So at least -- and I don't know if you've had a chance to speak with Rick Methot. He's working on possible revisions or reexamining the NS1, in particular.

And that's the nonstationarity aspect of how we go forward. The revisiting MSY in light of all of the things that we're seeing is very much in how we need to rethink --

Dr. Sullivan: Great.

Dr. Werner: -- or possibly evolve. Maybe not rethink, but evolve NS1.

Dr. Sullivan: Great. I'm glad to hear that that's happening, so thank you.

Dr. Werner: Yes.

Dr. Steinhauser: Very much. Yes.

Dr. Werner: Great, thanks. Thank you.

Ms. Moore: Hi. Thanks so much for the presentation. And I'm going to start by saying, please do all of those things.

Dr. Werner: Okay.

Ms. Moore: And now I'm going to ask you for more things.

Dr. Werner: Okay.

Ms. Moore: So, but first I wanted to say yes to all of that. Like, I'm broadly supportive of the Next Generation DAP, of the CEFI. I really want to see the IRA funds support that. I have done what we could to try to make sure that that stays in the spend plan, and all of that. So that's the top line.

The thing that I am -- like, you do a really great job of presenting that we are heading into different,

nonstationarity and variable conditions on the science side, and that we need to do more to understand that, and communicate that risk.

But what I -- and that like, we're in a new paradigm. But what I don't see the Agency doing is taking that new paradigm thinking and understanding that, like we're staying in the same science management silos.

Like, we are going to create the science to feed to the current management system, and hope that the current management system does what it's supposed to do, five to ten years from now, when you guys are done putting together the modeling and all of that, and give it to the council process, and just like hope that they understand it, and then take appropriate actions to handle it.

And there's a few things that are wrong, that are problematic, in my mind, with that approach, which is one, I don't think people are prepared to figure out how to make the decisions, based on the new modeling and everything.

I don't think there's any appropriate guidance about how to consider reference points for long-term sustainability based on like, what the Magnuson definition for what conservation and management should be achieving. Like, we're not focusing in on that.

And I feel like we're not focusing in on helping people understand, managers understand that there's going to be variability, and that the appropriate response to that is to try to minimize risk.

And there's not enough tools about how to do the management system. Like yes, there's MSEs. All of that's going to be seven, eight, nine, ten years from now before we get all of that. And climate change is affecting fisheries now. Crab are gone. Everything is shifting. Like, it's happening now.

Sorry, I'm getting -- I'm talking too fast. But the thing, to me is like, we haven't defined for anyone what a climate-ready fishery looks like. We talked about this the other day, how to manage -- what are the tools that increase the resilience of a stock now, so that when there is a disaster, it bounces back faster. When there is a decline, we try to arrest that decline.

We're not coming with the same complementary tools and thinking and new approaches. And I know the decision support teams are supposed to get to that, but there's just sort of like, on your slide there's sort of a couple of problems, which is one, those will all trail after the science piece is done. That's when we're going to start putting it into management.

And second, like that bracket, there's kind of just like, and a miracle occurs, in that bracket. But then we haven't like narrowed in on, like how are they supposed to literally take all of that new information and make the types of decisions that get made at the management process to figure that out.

And so that's like, I just see this missing set of translatable toolkit approaches, that could be applied in a lot of cases right now. There could be things we are doing with the information we have, to increase the resilience of stocks. And we're not doing them.

And I don't know what they all are, but I know there are some.

Dr. Werner: Yes.

Ms. Moore: And I just see that piece missing. And I think that this sort of church and state separation between the science side is going to feed the management side is not serving us well right now, when we don't have time to wait for that.

Dr. Werner: Yes.

Ms. Moore: And so that's like my key focus. The other thing I will note is that your decision support teams, I don't remember seeing any of that feeding into community resilience as well, like the actual shore side sort of experience.

And that's sort of a minor thing I just want to throw out there, but to me, like whether those decision support teams actually produce results is key. And what can we do between now and getting them up and running with their information to give them the best head start on resilient fisheries?

And so, that was definitely more of a comment than a question. So, take any part of that, and --

Dr. Werner: No, I agree with everything you said. And I hinted at a couple of them, and you've given me some thoughts, in terms of how I need to emphasize some of these a little bit more, because you make a number of points that I think are very important.

So, I'll start with, you know, including the communities. And I'll start with that one, right. I think, if you look at MSEs, and I'll just start with that, I mean, the success of MSEs is making sure that you have all the right people at the table at the beginning, right, not at the end.

It's not like, let me go away and crunch some numbers and here's the answer. That's not -- that will be a guarantee for failure, right. And I think that, if this is going to work, we have to get it right, right from the onset, so that we understand, what are people's questions?

I mean, it could be that we're answering a question that they're not interested in being answered. So I - - and that goes to those expert teams that we were talking about. It can't be a closed science discussion. This has to include the decision makers.

I mean, it has to include folks from councils. It has to include folks from -- you know, and the council

is, I mean that broadly in the sense of all the folks that make up councils, right, which include all the different elements of the communities, not just that are prosecuting the fishery, but also depend on it, or maybe want something, a different answer out of it, right.

So if we don't include all of those right at the beginning, right at the onset, as part of those teams, I think that we're going to go wrong. We might get the right answer for some things, but overall I think that's not the way to do it. So I completely agree on how we need to establish those expert teams holistically, right from the get-go.

In terms of how do you translate that information into management, it was a very, sort of whetting the appetite of the shadow assessments, right. I mean, that was -- the idea there was that we don't want to say we know what we're doing, right, you know, the first time out of the gate.

And so, the idea would be to work with the decision makers and with the councils and so on, and say, this is what we got. We're not saying this is what you should be using, but this is a bit of additional information that we will see over time whether it works or not, or whether we're providing the kind of information that would be helpful.

So, I think it's -- that's what I meant by this is a, this being a process and not an event. So it's not like we're going to set all these things up, and then next year we're going to get going. It's more of a marathon, I think, than a sprint, in terms of how we get there, for all the reasons that you said.

Plus again, things are changing as we move along. I mean, priorities might change, not just the science, but actually what -- you know, vulnerabilities might change, and etcetera, of communities. And so, I think this has to be a constant iterative thing, which is again, a feeble attempt, through that double Möbius strip that was there to say this has to be constantly talking, end to end.

But if we just focus on the glitzy science part, it's not going to work. That's not what CEFI is. And we should make sure that when we hopefully get a chance to report back, in six months to a year of where we are, that you -- that we're doing it, and we're not told, by the way, you forgot to do that thing that was so important. So, you know, but thanks for the comment. It's really right on.

Ms. Moore: Yes. I think, you know, if I could just respond quickly, what I don't see iterating is the management side. I see the science side, trying to figure out how to create iterative solutions to try to move things forward, and I don't see the sort of creativity coming in on the -- like, what does it look like to build resilience in a stock? What are the management decisions we can make to do that?

I don't see that happening yet. And I -- that is the place that I think is really missing. So thank you.

Dr. Werner: And a metric, albeit a loose one, is that as we're looking at possible resources, budgets that we might have, there's -- I think there's probably about 25 percent going into management, to include, to make sure that the management side of the house is included in this. So yes.

And I say 25 percent because a lot of infrastructure and stuff, you know, and computer costs and stuff that eat up a lot of it, but yes, we're -- that's -- it's included upfront, in terms of what it takes to make it happen.

Chair Davis: Thank you, Meredith, and Cisco.

Joe, and then Clay. And I see Jocelyn, Stefanie and Tom, just so you know the order.

Mr. Schumacker: Thanks, Madam Chair, and thank you, Cisco. I have always loved these talks, even if they are depressing.

(Laughter.)

Dr. Werner: This was uplifting.

Mr. Schumacker: Well, you know, they are to a degree, and I'm going to ask you a question here in a moment that it might help me.

We at the Quinault Indian Nation have a large chunk of ocean that we have, we co-manage with our treaty rights out here. However, it's a defined box, so basically species movements, habitat suitability and species movements over time are sure critical to us.

You know, we -- once those species leave that box, we don't have a treaty right to access them. So, consider it the Russia line for us.

So, we -- with that in mind, we hired an excellent firm out of California to give us a climate scenario plan that looks at our marine fisheries and changing over the next 80 years, from downscaled IPCC scenarios, and went through it.

And what we're up against now is trying to make this, these predictive models that we have in place, for this area, a little larger, to be actionable. And that, I think Meredith just alluded to this too, as well, how hard that will be, how hard it will be to make decisions based on data at the time.

And, you know, model data just won't do. We're going to need real-time, you know, consistent baseline data, you know, that gives us the changing trends, and importantly points out, you know, these threshold values that you alluded to earlier, where we can start to make these critical decisions on what we're going to do with our fisheries in our area.

So -- and try to make this really rational to our council, our tribal council, and our fishery. And so, with that, we need data. And you mentioned again, you know, the Next Gen Data Acquisition and what we're working on.

What I haven't heard lately, Cisco, is how effective have these Saildrones been? I know we've worked a lot of gliders. Sail drones, last I heard, you know, we've got piles of data from them, but they're really having a hard time crunching it all and getting that information out there.

And are these really working for us, or do we -- is there new technology in the pipeline?

Dr. Werner: Yes. Thanks, Joe, and good to see you. The answer is -- first, on the data and the broader data before I forget. CFI is a partnership across line offices. I'll just start with the partnership within NOAA.

The IOOS program, the Integrated Ocean Observing System program under NOS, the National Ocean Service, I would like to think of them as a partner within CFI. And they can provide some of that sort of near-shore data.

And by near shore, I mean continental shelf data, right, not offshore but continental shelf data. And I know that this is an opportunity because for a long time a lot of the work with the IOOS programs has been mostly physical and biochemical.

I think it'd be good to begin to do some of the more biological and fisheries-related data collection that hopefully they can do now that their technologies have evolved. So I think this is an opportunity we should pursue with all of those organizations.

What was your other question? The question was --

Mr. Schumacker: Just specific to Saildrones because --

Dr. Werner: Oh, yes. The Saildrone.

Mr. Schumacker: -- we're putting a lot of hope in those.

Dr. Werner: Yes. So the Saildrone, I think there's places where it's worked really well.

The success of the Saildrone in the Bering Sea during COVID was one that was maybe too good in the sense that it actually was able to go to a place where you could pretty much understand what that acoustic data was.

There's not too many different fish out there so you're probably measuring pollock or cod. You weren't looking at species complexes like you are, for example, off the West Coast where you might have a little bit harder time unraveling what all is acoustics out there, right.

So depending on where you use and how you use the Saildrone, it's really successful. I think that as we take that next step and want to use Saildrones in the more complicated places is perhaps actually where -- Pat was talking about the artificial intelligence and machine learning.

How do you take that acoustic data and separate an anchovy from a sardine or from a salmon, right, where you have more of those things. And that's something that we're working on as well in terms of how do you use some of these advanced analytical capabilities to further the use of the Saildrones and such.

The other thing with Saildrones is I think for very near-bottom things it's a little bit tricky, like any acoustic measurement near bottom, whether it's crabs or other things. There's always that issue of the reflections near bottom and so that's a little bit more challenging.

And so you have to use something in addition to it, like maybe cameras or maybe a trawl, to make sure that you can somehow or another calibrate with what the acoustics is telling you from the Saildrone versus noise.

I think Saildrones are for now a technology that we will continue using. There are other uncrewed systems that we're looking at.

I mentioned a DriX. DriX is a self-propelled one. It's not a glider by itself, but it actually has an engine to it. We do that by deploying it next to ships.

So you take it on a ship, you throw it overboard, and while the ship is doing one thing, you can program the DriX to do something else. So it's another flavor, if you will, of the Saildrone. You can combine then the DriX with some of the measurements that the ships are doing.

So I think there's a lot of opportunities out there with these gliders that are proving to be successful at a pace that we can actually use some of this information and ingest it. So long answer, but I would say that the Saildrones offer a really good alternative going forward.

Mr. Schumacker: Are we adequately staffed up, either contractors or within NOAA, to analyze this data in a timely manner and this acoustic data in particular?

Dr. Werner: I presume there's collaboration with the Northwest Center and Southwest Center, maybe not around the West Coast in terms of how we're analyzing some of that data.

If not, let me know and I'll put you in touch with what we're finding and then combine it with what you're finding in terms of your analysis. Thanks, Joe. I appreciate it.

Chair Davis: Thanks, Joe.

Thanks, Cisco.

Clay?

Mr. Tam: Yes. Thank you, Madam Chair.

Aloha, Cisco. It's encouraging to hear the direction you're headed in. And I think, not to toot my own horn, when you talk about the white ships and the costs, it is high.

But out here in the Pacific, as you know, we've done a lot of work with collaborative research and NOAA, the Pacific Islands Fisheries Group. We've done the bottomfish survey, an integral part of that including from the start, from the get-go.

This has been 12 years in the making we've been at this and even through COVID, during 2020 when we were one of only three NOAA projects that ever was completed survey-wise.

We did it because our platforms are small. They're fishermen that we've trained, worked with scientists to collect the data independently.

We do optical MOUSS drops. We do fishing, an independent fishing survey, 750 grids across the five major islands. We do this on an annual survey.

The best part about this thing was, giving credit where credit's due, it was a huge team effort. It involved the Consulate. It involved NOAA, Mike Seki, Ben Richards, a whole slew of participants, over 200 if you put it on paper.

The great part about it was that fishermen and scientists actually came together at a table. They were part of the data review session, P-STAR, WP-STAR.

They all integrated into our annual bottomfish assessment and rightfully so. They are the ones that helped collect the data. We worked with scientists to design and develop the forms, the protocols from the bottom up, and we've worked to the point we are at now.

If you look at the success of that project, it's all over the website. You can go and check. In fact, there's an interview with a couple of fishermen and myself that we talked about the project.

And I think looking forward perhaps maybe this can be considered to be used as a model. It's very easily scaled up to different fisheries and different

platforms, but I think that what I hear in the meeting is this lack of communication in working with our community.

Through collaborative research and every aspect that we've worked on through S-Ks and other grants, and this contract with bottomfish, has always involved fishermen. They are the true stakeholders and should be involved.

That provides us with a much better understanding of points of views, understanding what the scientists are looking for, understanding from the scientists what fishermen are doing out on the ground. It's a big difference.

We've actually taken our stock assessment scientists out on the boats to go and do some sampling. That has changed the perspective and understanding of our fishery out here.

It's different. We're in the territories. It's a relatively small fishery compared to those up there on the mainland. But I think, again, it's an alternative solution, and I think that comes up with ideas that are cost effective.

And also the bonus has been, like I said, the communication with our community. The change in attitude of the fishermen helping collect information on life histories, specimens, donate to Science Center -- they work hand in hand. All of that stuff just rolled up into one project.

And I think that once the fishermen and scientists gained each other's respect and trust, it was easy to move forward. And that's why I believe now we're in our 12th season and we're fortunate to look at another four years of this, at least on this contract.

So I think that maybe looking at the bottomfish project out here may be a way forward in terms of looking at a viable solution. And if you need input, if you need somebody to talk to, give me a call. I'm always available. Thank you.

Dr. Werner: Thanks very much. The BFISH project, I mentioned there were some silver linings during the COVID years where the white ships weren't available. And BFISH is one of them.

Like you said, it was a remarkable success in that it brought together, as you said, the fishing community. It brought together NOAA and technologies that, as I said earlier, we didn't think we were ready to use: the camera equipment, the artificial intelligence, and machine learning.

It was a resounding success for all the reasons that you said. It's an example to hold up.

With your comment on the partnership with the fishing industry and the fishermen, that's kind of what I was getting at with Matt as well. That kind of partnership in terms of collecting data and working together is going to be necessary because there's no way the ships are going to be able to be everywhere they need to be.

And so I think, to me, this is part of that next generation data acquisition. How do we work more closely with all of these different partners to develop the trust that you mentioned, but also to ultimately get the answer that we all want.

I totally agree. The BFISH is a shining star in terms of how we could do things moving forward. So thanks, Clay.

Chair Davis: Thank you, Clay.

Thank you, Cisco.

We have a little less than 15 minutes to continue the discussion. I'm just letting you know on the timing. We have Jocelyn, then Stefanie, and then Tom.

Dr. Runnebaum: Great. Thank you, Madam Chair.

Thank you for that presentation, Cisco. I think you might have just made the point that I was going to

start with. I'll say it anyway because it's on the top of my mind.

To Matt and Clay's point, it seems like the next generation data acquisition plan really needs to explicitly include cooperative research approaches to surveys.

Maybe it was captured in citizen science and those smaller vessels, but being pretty explicit in a cooperative research approach seems pretty important --

Dr. Werner: Yes.

Dr. Runnebaum: -- for all the reasons that you just stated.

And then I just have one question. It's exciting to see all of the predictive modeling for climate change that is being anticipated to try and figure out how to include it in assessment and management.

I'm curious what approaches the agency is taking right now to incorporate information of known climate conditions and climate changes into population models across NOAA trust resources, fisheries, and protected resources.

Dr. Werner: Yes. Thanks for that question. With regard to the first one, I couldn't agree with you more.

I think that the next generation data acquisition plan is going to be -- for it to be successful, it's going to critically have to include the cooperative research and such. I think it's a natural way to go forward.

With regard to what data we're using right now, it depends on the fishery. One example I mentioned was the red tides of Florida.

When they have that red tide then their assessments include that and they can adjust for expectations of what might happen. So that's one

example of environmental information that could be used.

Another one I think I'm going to borrow from Alaska having to do with when there was a difference in recruitment related to the prey availability. There was also the idea of what kind of energetics there is in the food web.

I think that they were able to account for that, at least in a hindcast way. And you learn from a hindcast in terms of how do you move forward. What factors come into mortality, right?

And that's kind of what happened during the warm blob. There was a difference in energy consumption, if you will. And once you understood that that was there, then you knew that perhaps the mortality part of the analysis needed to be adjusted.

So it depends on where you are. And that's why it's a little bit tricky right now because it's not one answer that addresses all of them. We're taking -- I don't want to say baby steps, but we're taking steps towards actually trying to be quantitative and how do we actually include environmental conditions.

There's another one that comes to mind having to do in this case with the cold pool, not off Alaska but one off the Mid-Atlantic Bight, having to do with recruitment of certain fish and the presence or not of that cold pool in terms of how it impacts different life stages of different fish and the recruitment there. So again, we're taking steps towards that.

If anything, it's somewhat parameterized as opposed to explicitly including the effect. I think maybe even what Pat was saying about you need to go beyond the statistical representation of things and actually try to go a little bit more mechanistic.

Those are just some examples of how we've been able to include that. And we would build on these with additional capabilities for CFI and others.

Dr. Runnebaum: If I may with a follow-up, you might be referring to the Gulf of Alaska cod assessment and the way that the stock assessment out there approached --

Dr. Werner: Steve Barbeaux?

Dr. Runnebaum: Yes, Steve Barbeaux --

Dr. Werner: Yes.

Dr. Runnebaum: -- in particular approached that assessment. And the decline in 2017 was pretty impressive in terms of really pulling together the extensive ecosystem information that was providing a lot of evidence for that decline.

I think it's a shining example but a pretty rare one that exists within the agency. I think there's a lot of information that can be learned to apply across the regions from how that was approached by the stock assessment. So thank you for that.

Dr. Werner: Yes. It was in one of those plots I had with a bunch of wiggly lines. There was a question about can we anticipate what kind of zooplankton will be there, right?

And if we can anticipate that they'll be lipid-rich versus lipid-poor or the other way around, then you would be able to in those projections -- again, that's the thing, right?

We need to think it's not going to be a deterministic answer, but it looks like this might be happening and assigning some level of likelihood. I think that's the kind of information that we will need to be working on, thinking ahead what might be there and what the response might be of the ecosystem.

Chair Davis: Very good. Thank you, Jocelyn.

Thank you, Cisco.

Stefanie?

Ms. Moreland: Yes. Thanks for the presentation. A lot of important things there.

I think one reoccurring theme is always the concern about just that baseline funding to continue to sustain surveys and observations that provide that ability to adapt in the short run.

I've been concerned about modeling and technology perhaps displacing observation, and feel it's really important to do that direct observation.

The Gulf is a great example. The missed survey year and the impact of that is another great example. Getting that continuous observation is critical so that if there's a shift or new information that we're responsibly responding. So I'm an advocate for the baseline information.

I want to express the great value that I see in ACLIM. I feel like now that I'm seeing the results of that and where it's going, I just want everyone here to be aware.

I've had that presented to our leadership team and Board of Directors as part of a process in thinking about long-term capital planning and spending.

I think it's really valuable supplemental information to be thinking about best available information in terms of scenario planning, winners and losers as you look at climate-driven changes that may happen in the ecosystem.

It's another data point that's important in light of the reality that we live in that infrastructure takes years to plan. For fishery communities in remote areas it's normal for it to be \$50-100 million to build a small boat harbor, a breakwater, a road.

And so that can take ten or 20 years to pull together the permitting and the planning to do that. Our industry is all built on aging infrastructure. We need to make decisions that are going to last the next 40 years. We need to start making those

decisions now.

So the science behind ACLIM is already, I think, providing some value as a consideration in making those long-term plans, but what we don't know is the management response.

I'm just going to speak to what Meredith brought up with respect to church and state. I think the Science Center can find some great information or the wrong information, and ACLIM is great.

But if the potential management response plans take into account new objectives and new ways of managing that are unanticipated at this time, then we're still not making decisions based on the right information.

At a recent Alaska North Pacific Fishery Management Council meeting, the region articulated their concerns about capacity constraints and even being able to support at the region on the management side all of the analytical requirements of the North Pacific Council, and announced they will not be doing so, that they will only be able to support certain agenda items perhaps going forward.

And so how might we proceed with working together through management response plans in that proactive manner of how much precaution? What's the effective precaution and compromising optimal yield on one stock for a potential, possible benefit on another that may not be measurable --

Dr. Werner: Right.

Ms. Moreland: -- that may push new fishing patterns that could compromise or affect another thing to avoid?

Those are exercises that I don't think should be done by just the Science Center team. I think they really need to involve the multi-state table.

And so I'm just thinking through what you've got committed there and the magic in the bracket. Is there an internal recognition of the capacity this is going to require?

Dr. Werner: First, on the observation side because that's an easy one. Yes. We were just talking about how everything is going to change and this is the time when we can least afford not to be taking measurements.

So this is something that, as I mentioned, whether it's IOOS or other things, increasing our survey capacity with advanced technologies and such and the cooperative research, without it we're not going to be able to go forward. And models can only go so far.

With regard to the inclusion of -- you brought it up, Meredith, in terms of the need to be sure that there isn't a chasm between the science and the management and the questions that you just asked. I think the conversation today has underscored that importance.

Is there a manager in the house? Let's see. I'm trying to see if there's somebody on this screen.

Mr. Fote: That's my next --

(Simultaneous speaking.)

Dr. Werner: Yes, Bob and Dave. I'm curious what your thoughts are on this.

I presume that, yes, the answer is there's all of this science that is happening. But I think there's a really hard problem in terms of the management side, like we're saying here, in terms of how to translate this in a way that is useful, that can be used and actionable in the end.

I think that the CFI -- and again, that double Mobius strip, maybe I need to revise it -- it really needs to be all-inclusive from the beginning so that these

gaps and these potential chasms are anticipated and addressed.

I don't know if you have any thoughts on that. I don't mean to pass the question on.

Mr. Beal: Thank you both for that. I think the managers want this science, but it comes across in a package at times that's so complex.

They don't know how to use it, to be really direct. And I think any way you can boil it down to make it, as you said, actionable, Cisco, is the right thing to do.

I think we can overload the process with too much information. We want to transition to ecosystem science, multi-species management, predator-prey relationships, habitat productivity, and all these other things that make the world complex and make management better.

But it can't be so complicated that it just sort of hangs up the management process. There's got to be a way to boil it down into simple terms and sort of simple metrics that the managers can use. We can't try to optimize everything.

I think the goal may be just to do a fair amount better on a lot of things. That may be a realistic goal. And I think you can do that with simpler science and more basic science, or take the really complex science and boil it down into simpler pieces. I think it's more effective for managers in those terms.

Dr. Werner: Yes. The question here about 20 years out and the levels of investment that you're talking about, that's very much on my mind in terms of we used to be able to say, well, there'll be ups and downs, but on average we kind of know where we're going.

Are you planning for pollock or tuna? I don't know 20 years out. And that's a different question, right?

That's a hard one.

And with regard to boiling down models to something that's useful, I remember sitting with folks from the Coast Guard one time. We were talking about all our models and how complicated they are and how they do internal waves, temperature, and salinity.

The Coast Guard person said, well, that's great, but all I want to know is do I go left or right when I leave the port because I need to rescue that person. Don't give me all this stuff. Just tell me what I need to know.

So that's also stuck very much in terms of that overload is something that we need to translate. You might need that complexity, but the answer that you need is not that complex. It's the outcome of that complexity.

Chair Davis: Very good discussion. Thank you.

Tom, you have your hand up?

Mr. Fote: I do. I have one of the unique positions of managing species for 30 years and jointly managing with the Mid-Atlantic Council on some of these species. So we have the federal laws and we have the commission rules.

And when I'm listening to Meredith talk about what answers we can give to the managers, we don't have a lot of choices. If you sit on the Mid-Atlantic Council you look at what stocks we can put precautionary approaches in, but then we can't assess what it'll affect on the communities because that's not part of the law.

We basically look it but then we go ahead. If you're going to tell us that we have to reduce it -- the information goes to the FSC/SSC. Now it then goes to a monitoring committee, which is going on right on, on certain species.

And then you put in a precautionary approach of how much -- load the miles you want, 80 percent surety. Do you want 60 percent surety? And that's where we're looking.

I would love a new tool that would basically take on what climate change is doing. Basically, in some respects, what the commission did is we looked at lobsters. We realized there was nothing we could do.

If we were managing other Magnuson-Stevens, we would have put a moratorium on the Southern New England lobster fishery, if I'm not mistaken, probably ten years ago because there's been no recoupment.

And if there's no recoupment and it hasn't gone up for ten or 15 years, we should be shutting the fishery down. But we knew that's not going to have an effect on rebuilding the stocks because they're not coming back, so we basically just let the boats participate as much as they could participate.

People got out of the fishery. They moved to other fisheries. Maybe disaster money would have helped to cover those people, but that's all I can see. And when you look at infrastructure and look at what we're seeing in these communities, unless there's money being given, that's the only thing managers can do is give money.

If you're basically telling us to cut back because climate change is causing these effects, it's going to affect the community. It's going to affect the fishermen. And we can't promise it'll have any result. I mean, I wish we could.

I look at reef fish. I look at winter flounder. I look at surf clams. And one of the things we don't really talk about but we wrote an article about it -- it was in one of the magazines the other day -- was sand eels along the East Coast. When the temperatures started going, they stopped reproducing.

We also started doing sand mining to go on the beaches up and down the coast, and we've destroyed the habitat in the lumps. We destroyed that. The Army Corps of Engineers did it.

Are we going to tell the Army Corps you've got to put those lumps back for the fisheries because that's part of the management plan? We don't have those controls.

So I'm trying to figure out where do we get those -- and I'm sitting here, because Meredith mentioned that, for 20 minutes trying to figure out what more controls can we have under the present laws when we're dealing with federal laws.

The state laws are state directors, legislators, and fishermen all sitting there together coming to a decision on what we do. We have to be realistic on what we do and how much we hurt the community, how we take the economic impact of what we actually do, or will it have any long-term effects.

We say we can rebuild these stocks but it's not working because, again, the only thing we can manage is raising size limits and reducing bag limits or closing seasons. And when we raise size limits, we cause more of who can release mortality or commercial discards, mortality there.

And we basically don't do -- even when you stop people fishing you're going to protect what you have there, but it's not going to increase unless the recoument factors get better. And that depends on environmental conditions and climate change.

So that's my frustration when I deal as a manager sitting here, the same as all the managers sitting around the table. We would love to do it how we wouldn't hurt a community, we wouldn't shut down docks, we wouldn't shut down fisheries.

But unless we come up with some way of marginally cooling the water temperatures down in the next ten years, that's the only thing I can see is going to

happen.

Dr. Werner: A lot of good comments here. I was thinking -- you're talking about the precautionary side -- maybe there is an implication in precautionary that things might bounce back. And under non-stationary, things might not bounce back. They might be one-directional.

I think that's what you were saying, that you can stop doing all these things but it's not going to change the answer. The answer is still a one-way street and maybe not in the direction that you want it.

As we all think about what do these non-stationary changes imply in terms of the resources that we're managing, there are those cases where you kind of wonder what exactly should we be thinking about in terms of precautionary.

You made a number of comments, but that one just came to mind in terms of how we need to evolve our thinking in management and how we respond to that advice.

Mr. Fote: And just to respond, that's one of the only tools we have --

Chair Davis: Tom, we actually need to break. I'm sorry. But thank you for your comments.

Cisco, this has been a really great discussion and bringing us up to date on the thinking. Lots of thought and lots of comments. This really blends in nicely with our discussions that we're going to have on the work plan as we move forward.

I don't know if you're going to have time to continue to join us this afternoon. We're going to take a quick change in the schedule so I can let Heidi know that, but we certainly invite you to stay and continue discussions with us. So thank you very much.

Dr. Werner: Thank you.

Ms. Lovett: Okay. So I've been juggling a lot of messages. Just so you know, a few of you noted that Dr. Spinrad had walked into this room unexpectedly before we reconvened. He's at the SAB meeting. He is hoping to come back and join us here briefly.

But before that, the SAB is celebrating their 75th meeting, I think. They have cake and they are breaking promptly now. They were going to break at 3:00 but now it's 3:10. So we are invited to go over there and join that little mini-celebration.

The goal is that we quickly get our cake and, I would recommend, come back here and be ready for a visit from Dr. Spinrad. I'm not making promises just because there's too many moving pieces and they've been running late.

After that, we wanted to spend time both on the workforce development conversation and to share some slides that Megan has put together that kind of wrapped up what we talked about yesterday and help us move forward today.

We had scheduled time -- Joe, this may not work exactly -- we had scheduled time for a subcommittee meeting. And just the Workforce Development Group needs to meet briefly to review the comments that have been coming into the document.

Joe, I don't believe you're going to need a whole hour. Maybe you do have more changes than I'm aware of. So let me know. In fact, why don't you just let us know what you're thinking? How long you think --

Mr. Schumacker: I emailed what I thought about that. I have a few notes here from the folks, comments that were made the other day, and we wanted to at least address those in the course of that. It probably won't take an hour but it depends

on how efficient we are.

Ms. Lovett: Okay. We're going to juggle a little bit here. I'll just note that at a minimum, I guess, because of Joe's time and being three hours behind us, we'd like to give at least 30 minutes to him.

And if those of you who have been working on the workforce are amenable to potentially meeting between 5:00 and 5:30 to start and look at the comments, does that work with you, Joe?

Okay. And then tomorrow, if we don't get through everything that we want to discuss on workforce development, we have big chunks of time.

We've sort of freed up some of the time from tomorrow because we've already approved the recreational fisheries recommendations. So we might juggle things a little more tomorrow, but I need to think about how to do that and get in touch with other people.

Anyway, I just wanted you all to have the opportunity. And hopefully Dr. Spinrad will come back and spend a few moments with you.

So I suggest we go over there now. We're taking a break.

(Whereupon, the above-entitled matter went off the record at 3:10 p.m. and resumed at 3:29 p.m.)

Chair Davis: Welcome back from our celebration cake break. I'm very happy to be able to introduce you to Dr. Rick Spinrad, who is the Under Secretary of Commerce for Oceans and Atmosphere. And I believe he said he's the 11th NOAA administrator.

Dr. Spinrad would like to talk with us, but he'd also like to have a quick round of introductions. So why don't we start with that? Okay. That sounds great. We're going to go ahead and start with our virtual members.

Tom, would you go, and then Clay and then Joe.

Mr. Fote: My name is Tom Fote. I represent Jersey Coast Anglers Association for a long time. I've served on the Atlantic States Marine Fisheries Commission as the Governor's appointee on and off since 1990. And I've been going to Mid-Atlantic Council meetings since 1986. So I've been around a while.

Mr. Tam: Aloha. Clay Tam here. I'm the Director of Research at Pacific Islands Fisheries Group, also the Council AP Chair. Nice to meet you.

Chair Davis: Joe, are you there?

He might have stepped away. Okay.

David?

Mr. Donaldson: I'm Dave Donaldson. I'm the Executive Director of the Gulf States Marine Fisheries Commission.

Ms. Moore: Hi. I'm Meredith Moore. I'm the Director of the Fish Conservation Program at Ocean Conservancy.

Ms. Kalez: Hi. My name is Donna Kalez. I'm from Dana Wharf Sportfishing and Whale Watching in Dana Point, California.

Dr. McDonald: Hi. I'm Sara McDonald. I'm the Director of Conservation at the South Carolina Aquarium.

Vice Chair Ralston: Hello. I'm Kellie Ralston. I am Vice President for Conservation and Public Policy with the Bonefish and Tarpon Trust in Florida.

Dr. Sullivan: Hi, Pat Sullivan. I'm a professor emeritus at Cornell University.

Ms. Schumann: Sarah Schumann, commercial fisherman in Rhode Island and Alaska.

Ms. Lovett: Heidi Lovett. I'm the Assistant DFO for MAFAC.

Chair Davis: Megan Davis. I'm a research professor at Florida Atlantic University, Harbor Branch Oceanographic Institute.

Dr. Runnebaum: Jocelyn Runnebaum. I'm a marine scientist with the Nature Conservancy in Maine.

Ms. Moreland: Hi, Dr. Spinrad. Stefanie Moreland with Trident Seafoods. I want to thank you again for coming to Alaska. I had the opportunity to meet you there. I appreciate the commitment and time.

Ms. Odierno: Hi. Linda Odierno, fisheries consultant.

Mr. Upton: Hello, Matt Upton. I manage trawlers for US Seafoods that operate in Alaska.

Mr. Veerhusen: Hello, Brett Veerhusen. I'm the Principal for Ocean Strategies and fished for most of my life in Alaska.

Ms. McMurtry: Hi. I'm Gabriela McMurtry. I'm policy analyst with NOAA Fisheries.

Chair Davis: And we have Joe, Jennifer, and also Sarah in the back.

Go ahead, Joe.

Mr. Schumacker: Hi, Dr. Spinrad. This is Joe Schumacker. I'm a marine research scientist with the Quinault Indian Nation out at Washington State.

Chair Davis: Jennifer?

She might have stepped away.

Sarah?

Ms. Lukens: I'm here. Can you hear me?

Chair Davis: Yes, we can.

Ms. Lukens: Good afternoon. Hello, Dr. Spinrad. I think you remember me. I'm the Director of the Office of Policy for National Marine Fisheries Service. I apologize for not being camera ready. I'm at home

with the flu today.

Dr. Spinrad: Well, thank you all for taking the time and introducing yourselves.

And thanks also for allowing me to kind of break up your agenda a little bit here, Megan. I wanted to take advantage of the fact that I was in with our Science Advisory Board and found out we're making great use of this facility here by having multiple advisory committee meetings.

For me, this is a good opportunity to kind of settle down. I spent the morning, I'll share with you, with Vice President Harris and President Macron at NASA talking about some of NOAA's equities.

It was a highly choreographed, highly protocolled event. So it's really nice to just kind of sit down and have a conversation with folks who really are invested in the same things we are invested in.

I wanted to start by telling you two things. First, thank you for your service. Service on federal advisory committees is tough. It's a lot of work. And I know you're all doing it for the pay, so I recognize that aspect of it. But I really want to say thank you.

Your advice is extremely valuable, at this time especially. I'll share with you some of my perspectives on some of the challenges that I think the MAFAC role is particularly important right now.

The other thing I wanted to share with you is I am a recreational fisher myself. Before I came back out of retirement the second time from my home state of Oregon I was actively fishing for albacore, halibut, less so for salmon. So there's a personal aspect of the roles and responsibilities that you all have on this advisory committee that I can resonate with.

I'm not a fisheries scientist. My area is mostly physical oceanography. I've been a career guy at NOAA for almost 20 years prior to taking this job. And you don't spend time in senior career positions

at NOAA without hearing about some of the issues, challenges, opportunities in fisheries.

Part of my time I was leading NOAA research. At the time Bill Hogarth, for example, and I talked extensively about where are the opportunities for NOAA research to be more involved with fisheries.

Cisco and I go way back. In fact we've had many discussions on, hey, where can we identify some new opportunities for a little bit more cross-NOAA activity.

The point I wanted to share with you today is that MAFAC and other similar advisory committees have a role to fill regardless of where we are, regardless of who's in charge. We've got some real challenges right now.

The challenges fall into a few categories, one of which I would say is potentially conflicting missions, even just for our own agency at NOAA.

Here's your pop quiz. Anybody can answer it. What does 30 by 30 mean in this administration? Anybody want to tell me what 30 by 30 means, please?

Dr. Sullivan: 30 milliwatts by 30 days.

Dr. Spinrad: 30 percent conservation of American lands and waters by 2030.

(Simultaneous speaking.)

Dr. Spinrad: You're half right. That's the key. The other is 30 gigawatts of renewable offshore energy by 2030. And I bring that up because that's a potentially conflicting set of agendas.

By the way, guess what? At NOAA we own parts of the portfolios in both of those. So any advice we can get on how to help the government chew gum and walk at the same time in dealing with these potentially conflicting missions is really valuable.

We see it in terms of the issues with regard to siting

offshore wind, the issues with regard to fishing regulations associated with Sanctuary designation.

We're seeing more Sanctuary and National Estuarine Research Reserve designation-type activity right now than I've seen in my whole time at NOAA over the last 20 years. And that's got to have the best possible advice with respect to fisheries implications.

The other challenges I'd describe as old wine in new bottles, and what I mean by that is IUU fishing. That's not a new challenge.

The new bottle is that we're getting really serious about it right now. You've seen that in national security memoranda, in attention at the UN Ocean Conference in terms of new agreements, new interagency dialogues.

Deep sea mining. I got into the field of oceanography because when I was in high school I heard about manganese nodules. What happened was technology just wasn't there for that to be a real thing for the last 30 or 40 years. Now it is, now it is. Okay.

What should we be thinking about in terms of ecosystem implications, ecological implications? That's a real debate. And it's compounded by, of course, the fact that we're all walking around with smart phones and we need special minerals for those kinds of technologies.

The Central Arctic Ocean, fishing in the Central Arctic. This is no longer a theoretical discussion. Are we prepared for that?

So these old wine in new bottle issues are ones that I think are demanding even more attention to critical issues associated with marine spatial planning, with fisheries, with habitat restoration, all of things that are affected by fishing, mining, tech processes.

And then I haven't said anything about climate change. Have you had a chance to talk about that? Yes. Okay.

I will share I did come back from Alaska. I spent a week and a half in Alaska in August. Everywhere I went, Senator Sullivan was there. I think he was actually stalking me while I was up there.

Some things really stunned me. When I went up to Nome and went to the processing plant, they showed me the halibut/crab/salmon machinery. And then out on the pier was 300 pounds of Pacific cod. Really? What are you doing about that? Well, we're going to figure that out, was the answer.

And then you saw, of course, what's happening in the Yukon and Kuskokwim. You saw what happened, obviously, with the crab populations. We're seeing the same thing.

I had a briefing with Senator King on the issues associated with lobstering and North Atlantic right whales. And we both kind of looked at each other and said, you know, the people who are in our jobs in ten or 15 years might not even be having this conversation because of what we're seeing in the populations.

It may be a very different geography that we're dealing with there. The same thing for so many species.

So I just wanted to share with you not what I think of these issues, but that as administrator I'm looking at some pretty daunting challenges. And we need all the help we can get.

So I won't disrupt your agenda any more. I just wanted to say thank you, let you know what some of the things are. If I had any hair, I'd be pulling it out. It just keeps me awake at night.

I do need to run back to our Science Advisory Board, but if there's any urgent question or

comment that you'd like me to have, I'm happy to stick around for a few more minutes.

Mr. Veerhusen: Thank you, Dr. Spinrad, for joining us. I know your schedule is busy. I'm glad to have your time.

My question is around just some advice. As MAFAC members, we can do some advocacy for the agency that the agency might not be able to do for itself. And we hear over and over a flat budget and constant needs in many areas around science, surveys, monitoring.

And I'm wondering -- official-unofficial advice, how we can think about creatively communicating the value that NOAA science brings beyond just maybe the public and the stakeholders that are under the NOAA agency.

So for example, if Chuck Schumer is really caring about the next Katrina and looking at hurricane mitigation, will NOAA's science help inform better preparedness for hurricanes? What's happening with fisheries and climate change, will that inform food security for our nation that might appeal to a broader audience?

So what's some advice that you have that we can think about amongst ourselves on how we can appeal and communicate to a broader audience to build the support for NOAA in many capacities?

Dr. Spinrad: I really appreciate and like that question, especially the way you framed it because all too often we are technocrats at NOAA. And we'll come in and say, gee, we've got a great new publication that shows our improved capability for primary productivity forecasting. Isn't that wonderful?

And we need help in terms of the user, what I call the pointy end of the spear, the people who are out fishing and the people who are trying to build coastal economies. Well, any economy -- food

security, as you mentioned -- expressing the value of our services in that context, which for a lot of scientists seems like just a bridge too far.

I can't take my model and say that saved lives, or that improved the yield or the value of a particular commodity. You all can. And so I think when you see that value, it helps us to express it in terms that people understand.

The other thing I would say is we are a \$7 billion agency, plus or minus. And yet we just got \$6 billion of new money over the next five years. Amortized out, that's about another \$1.2 billion, about a 20 percent increase.

I am convinced if we demonstrate the value of that investment that five years from now it won't just be a step function and we'll go back to where we were, that we will actually be able to reset how much money the American public is interested in spending in all of these activities.

And so part of that's going to be how well are we doing on spending the Bipartisan Infrastructure Law and the Inflation Reduction Act money in things like habitat restoration, in improved forecasts, all the things that protect lives, build economies. I talk about lives, livelihoods, and lifestyles.

And so as you see those investments -- by the way, we're already seeing about a ten-to-one proposal pressure on the Bipartisan Infrastructure Law money, which tells me there is a thirst for this stuff. But as you see the value of that paying off, let people know.

I'm not asking you to flag for us. Just let them know what the value of that is and we'll try to do the same thing. I think it boils down to very tangible kinds of products that affect industry bottom line, that affect sustainable community economies, and that affect people's lives.

Not to be too specific, but one of the things that

we're going to do with some of these new monies is we're going to get an additional airplane for high-altitude hurricane reconnaissance, not the ones that fly through the hurricanes but the ones that actually fly over the hurricanes.

We know that the data from those aircraft improve our tracking intensity forecast by 30 percent. Okay. You all can easily translate an improved accuracy of a hurricane forecast by 30 percent to protection of lives and property in terms of who needs to evacuate, where do you mobilize, and how do you make the communities more resilient.

So we can work with you on trying to tell some of the stories, but you have access to different audiences than we do. Does that answer your question?

Mr. Veerhusen: That's a great example. We heard a lot about the additional funding that's coming in over five years, and if we can find a way as a group to measure it and communicate it to make sure that people can understand. But also it was somebody's point earlier that it's our job to push the agency a little bit more where possible.

It can be probably pretty uncomfortable to claim a win or that your research, as you were saying, had this impact. But I don't think we should be afraid to do so because I think we should be able to challenge ourselves.

Dr. Spinrad: Yes. That's a really good point. I'll tell you one of the other philosophies I'm trying to build into the agency. It's actually something I picked up early in my career when I worked with DOD. It's what I call threshold and objective.

So for \$7 billion you get this. That's the threshold. If we had \$8 billion, you could get that. So that delta is what you are saying you don't want, you being Congress, you being the Administration.

That difference, you're telling us that you're willing

to live without adding another layer of protection, without ensuring X more stocks are sustainable. And that's a tougher message for people to swallow than, hey, we're going to give you this and this for what you're giving to us.

So this concept of threshold and objective, but we've got to be honest about what that objective is. We can't say, give us \$100 billion. That's not realistic. Being able to describe what the optimal state would be is really important.

Well, thank you again. I really appreciate all of your great work and contribution and your support of the agency. Let Cisco know if there's something I need to do.

Thank you, Megan.

Chair Davis: That was great. Thank you very much.

Dr. Spinrad: I appreciate it.

Chair Davis: That was great.

Ms. Lovett: Good question, Brett.

Chair Davis: Yes. Thanks, Brett.

Sorry, Jocelyn.

Dr. Runnebaum: That's okay. Can I actually direct it to Cisco and maybe have it lead into this communication?

Chair Davis: Please do.

Dr. Runnebaum: So I think to this point of communicating the value of the agency and what you're getting for your dollar, when I moved to Alaska from Maine and then back, we took the Canadian route many times.

The Canadian government does this incredible thing where they tell you the project, what it costs the Canadian people, and what they're getting for those

dollars spent.

And I think being kind of transparent in the money that we're spending and what we're actually providing, or what service the agency is providing the public be it Fisheries or through the Weather Service, I think will bring value in demonstrating how much work this agency does for every piece of this nation.

I think it's a pretty cool model. It's just kind of nice to see where your taxpayer dollars are going.

Mr. Veerhusen: Jocelyn, to that point, if I could respond, I agree with that approach.

We heard time and time again from the two fishermen that Sarah brought -- and I think we kind of all know this intuitively once people touch it, see it, feel it, taste it, whatever it is as part of the ocean or the work -- that there's a much deeper human connection.

And so building that social license to the broader public through messaging, through transparency of the ways in which dollars are working can also hopefully broaden the basic understanding of what the agency does and what we all do.

But then also build interest for it because I think when people hear more about the work of what NOAA's doing through surveys, assessments, and weather, that's tangible stuff. So I like that idea.

Chair Davis: That's great.

Cisco, did you --

Dr. Werner: Just a real quick response. Your point is well taken. It's actually almost what NAPA said in terms of you guys really have to say what this enterprise costs.

And I want to almost tie it to what Dr. Spinrad said. What are we not providing by not asking that delta? And I think that first we need to say, what are we

providing for the research that we have? And then that allows us to take that next step, but that's very good advice. Thank you.

Work Plan Discussion - Part II

Chair Davis: Thank you for that.

I think now we'll move into more discussions on the work plan. We had some great presentations this morning. We had the budget, a review by Brian. We had Russ talking about recreation. We had Cisco here on the science. And we just had Dr. Spinrad here.

So lots of good ideas and lots of things that we can continue to focus in on in terms of where we can best put our efforts into the work plan.

The next -- I think there's five or six slides. They're a summary of our discussion from yesterday. I want to make sure that they've captured everything that we talked about yesterday, but also there's probably been new ideas, obviously, that have been generated.

These are really not by any means in stone of what we're going to do because we need to take these and keep finessing them. And also we need to come up with the best charge that we can, having NOAA help us with that charge, that will be the most beneficial for our work time and our work plans together.

So to start off here, it was Pat that brought up communication. And then throughout the discussions it kept coming up. It's still obviously very much coming up, how to communicate with the general public.

Are there recommendations to assist NOAA Fisheries in delivery of information on these complex topics, on correcting misinformation?

Some of the examples that we brought out

yesterday were regarding the climate change and resilience overview. Defining what are climate-ready fisheries, that was one of the questions Janet had asked us to help NOAA define. Brett talked about the seafood trade topic needs clarification.

Lots of big ideas there that need some communication around them, and then the whole social license. So these are just some examples. Communication seems to be a very strong avenue of what we've been talking about.

Let's go to the next slide.

Under-utilized species was brought up by Matt.

Ms. Lovett: That's a typo.

Chair Davis: Okay. I think I had maybe put what opportunities but really it was what barriers are to using under-utilized species.

Are there potential overarching policy recommendations that MAFAC could discuss or recommend? And then this was also brought up under the context of food security.

This is a bigger bucket, climate-ready fisheries and community resilience. Many of you put comments into this yesterday. What do these terms mean? Once again, this comes back to the communication. How can MAFAC help NOAA define these?

Missing a description on what building resilience means for management. We talked a lot about that today in regards to science to management and then the community perspectives, how to sustain future generations of fishers, new entrance into the industry. I believe Sarah had talked about this also yesterday.

An overlapping topic was climate because of the issue with access into the fisheries with changing environment. So how that looks in the future for new fisheries coming into the industry.

What changes can be made to improve approval and delivery of disaster relief funding? This is a topic that has been on our radar for some time. So how best to do that, especially in terms of climate-ready fisheries and climate resiliency.

Protected resources is a part of climate discussion. Climate-resilient aquaculture is part of the discussion as well.

This goes on to talk more about resilience and adaption. How can NOAA be positioned to be resilient?

Remember that was a discussion we had yesterday about is NOAA in a position to be as resilient as they can be in terms of staff being trained, in terms of agility within this topic. And then the more resilient they are, the more they can work with seafood sectors and the more impactful for the seafood sectors.

These were four areas that, Pat, you brought these up yesterday: environment, government, economic, social consideration.

We need to move away from the status quo. That was certainly something that we heard more about from Cisco today. Triage needed to how to manage fisheries.

Each area has different attributes. That was talked about by a couple of you yesterday. I can't remember exactly. But to look at different species in geographic areas, not one size fits all.

Climate will not be the only thing impacting marine environments.

Clay brought up yesterday about species in ecosystems having some resilience capacity on their own, and that we need to support their adaptation and give them time to return to, quote, whatever that normal is now. And how can tools and technologies be used to help?

Can MAFAC play a pivotal role and suggest innovative ideas for investing in the future? What can MAFAC recommend to NOAA to help think more proactively? That was a discussion that Sebastian had brought into the discussion yesterday.

Climate science to management, our big topic for today as well. Meredith, you've been definitely talking a lot about this as well.

Ms. Moore: Sorry.

Chair Davis: No, don't be sorry at all. NOAA collects a lot of climate science but the data does not always make its way timely into management decisions. There are significant structure barriers.

What does success look like? That was one of the thoughts from yesterday. Can we look at some case studies that can either be started or that are already underway?

And of course, the staffing needs and the budget costs to implementation. That's actually an overarching area in a few areas after we heard the budget talk this morning from Brian and just now from Dr. Spinrad.

Recreational, I think this is the last slide. Donna brought up yesterday that recreational anglers are losing access, some due to management issues, some due to climate impacts. Improving recreational fishing opportunities have not been addressed. And more data management to manage recreational fisheries.

So we touched on many topics, many topics that we've all been talking about and many topics that have been presented by various presentations that we've had over the last couple of days.

I think we have about an hour, maybe a little less than an hour for discussion. We need to think, first of all, are there any changes or additions we want to make? Have we covered everything that you all

talked about yesterday?

And then we need to start to think about how to make those big questions, how to come up with two or three questions.

Pat, please.

Dr. Sullivan: I was just talking with Kellie before she left. She sends her regrets that she can't be here.

One of the things that came up was the IFQ elements, individual fish quotas. Do those need to be reviewed by us somehow? Should I say that again?

Chair Davis: Yes.

Dr. Sullivan: So both captures what I would view as IFQs. It's a controversial issue. Is there anything that we can contribute to that?

Lucas raised that. I'm constantly hearing about that too in lots of different settings. So should we do anything about that is the question.

Ms. Lovett: Can I ask a clarifying question?

Chair Davis: Thank you, Pat.

Yes, go ahead.

Ms. Lovett: This is a clarifying question. This is Heidi. Are you thinking about the guidance for IFQs or some other part of the process?

Dr. Sullivan: Well, maybe the problem is only communication. I don't think so. There may be more than that. It seems to be a problem that involves the fishing community but also an attempt to do conservation appropriately.

It also has some economic as well as social issues wrapped up in it. That seems something that would be perfect for this committee to consider if it's a high priority for us.

Chair Davis: You all have the slides also.

Ms. Lovett: They were provided just a few moments ago.

Chair Davis: Just a few moments ago.

One of the things I want you to be thinking about already is what areas you would want to work on. I know Meredith already came and saw me yesterday and said, you've got to put me to work on one of these topics.

So let me come back to you, Meredith.

I see Stefanie and Brett with their cards up. I can't see the virtual, if they have any input, so we might want to bring them back on the screen as well.

Let's hold on to that. Okay.

I see, Joe, your hand. So Stefanie, Brett, then Joe. Thank you.

Ms. Moreland: Thank you.

Pat, I'm just responding on that major topic that's been a longstanding issue. It's big, and region- and program-specific with a lot of topics that could be taken up within it.

I was surprised in our MAFAC call in finalizing input on EEJ policy about the lack of interest in my request to consider putting examples of mitigation measures, that we're more designing conservation programs, and using quota and allocation as a means to achieve some of those objectives such as a known fleet so that you can develop a monitoring program.

And many other objectives that are addressed, often by cooperative programs or quota programs, that you can consider what the unintended consequences are from a socioeconomic impact and to underserved communities.

That was the request in the EEJ policy that I tried to articulate. I see a nexus there and still feel like mitigation is more constructive than opening up the topic really broadly.

So that is, I guess, my standing request to consider because there have been some successes around the country.

Chair Davis: Great, Stefanie.

Brett?

Mr. Veerhusen: Yes. I think, just to quickly respond to Stefanie, the EEJ subcommittee was very intentional about not giving specific examples because they were left open to interpretation.

And so we felt it really important to define the elements in a framework and definitions of environmental and equity justice before then giving examples of how, based on our own definitions -- before getting the input of the full committee and the sign-off and the vote of giving examples.

So that's just some reasons why we didn't go that extra step. Not saying that step is inappropriate in any way. It felt premature.

Pat, to respond, I'm wondering if the National Academy of Sciences Committee that they are assembling now to determine data and information required to assess whether the distribution of federal fisheries management benefits are equitable that is happening. Would it be something that MAFAC could stem off from or contribute to?

As an FYI, there is that National Academy of Sciences review right now going into place of federal fisheries and benefits as equitable or not.

Dr. Sullivan: That's a good question, Brett. I didn't recall until you just mentioned it now that they were doing that. Maybe is my answer, in the sense that I've chaired three National Research Council reviews

and have participated in two others.

One of the things that happens is they get pretty narrowly defined. I could see the idea of captures not even being considered within one of those things. However, we could approach somebody to ask if that is the case.

One of the things that they do is they travel around the country and meet with different groups to get input on what should be done. So maybe we could leverage our way into being on the docket for one of those meetings.

I think it's a great idea if we could do that. It would be nice to find out if they're going in that direction, which would be good. And if not, then maybe we need to pick up the --

Mr. Veerhusen: It seems like maybe a way to amplify and leverage other people's work and a bit of a time saver, and inserting ourselves into a process that's already happening.

Ms. Lovett: So I was just thinking what I can -- I wasn't previously familiar with it until I saw the announcement. And I know that it's funded through our Sustainable Fisheries Office.

As I recall, Brett and Pat, they're looking at what kinds of data would help assess whether or not fishery management actions are leading to equitable benefits across the nation to all kinds of people.

I think what might be a good first step is asking internal staff who are going to be managing that to give a presentation. We could do that as a webinar just to inform this group of what their goals are and what the broader parameters are beyond the paragraph that we all saw. That was the announcement, right? So we could do that for you.

Dr. Sullivan: As long as it's done in a sort of timely -

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Ms. Lovett: Yes.

Dr. Sullivan: -- because they launch and then they just go, right?

Ms. Lovett: Well, you're not going to be impacting what they're doing necessarily. Maybe.

Dr. Sullivan: We could.

Ms. Lovett: You could. I get what you're saying.

Dr. Sullivan: I like the idea of a presentation. I'm just throwing some ideas out. It's not like our whole committee needs to be there. We can send some representatives or something to --

Ms. Lovett: What I meant was a webinar to allow everybody to understand what the goals of that project are.

Dr. Sullivan: Yes. But I mean --

Ms. Lovett: And then we can do follow up.

Dr. Sullivan: Okay, which might involve us impacting them. Yes. Okay. That sounds like a good idea.

Mr. Veerhusen: I think that's a good idea. And Pat, I'm glad to have your knowledge of how these processes work.

Chair Davis: Thank you.

We have Joe, then Meredith, then Jocelyn, and then Matt.

Mr. Schumacker: Thanks, Madam Chair. My mind is wandering all over after this great discussion already.

Just going back to the slides here, the first one of course, communications that was brought up, it's an overarching theme.

It's so broad in my mind because there's so many

different facets of NOAA and NOAA Fisheries' mission here that need that focused communication to occur. Maybe it's an overarching thing that would fit within these other ones, climate science to management for instance.

Just as an example, I thought Clay brought up a really good example of building community trust and understanding of the science in fisheries management with this example from the islands out there. That type of communication is important for understanding those complex issues.

I think that then goes through resilience and adaptation, climate-ready fisheries and communities, even under-utilized species. All of that needs that communication piece in there. I'm just thinking about how in my mind it's more of an overarching theme throughout these other topics and potentials.

Chair Davis: Thanks for that, Joe. Yes. I think we could agree that communications is needed in all the topics. So thanks for articulating that.

Meredith?

Ms. Moore: I don't know if this is a problem we need to solve, but I do think there's a fair amount of slight duplication among a few of the ways that we bend things across the slides. You know that but I just wanted to highlight that.

Obviously, I strongly feel like we should be trying to push on articulating what we actually see as the goal for climate-ready fisheries management. I'm a big fan of that one.

I'm going to take a shot at suggesting another one which isn't on any of the slides here, which is whether we want to try to weigh in on the idea of how to lower barriers to participation in the various processes that exist from both an equity and environmental justice perspective as well as -- we've heard Sarah talk about the challenges for

smaller-scale fishermen and others for engaging.

I could see a variety of recommendations coming out of some work around that about how the agency could provide small grants or other sorts of mechanisms, as well as large-scale outreach and participation programs in order to try to demystify.

It's somewhat in the communications thing, but I do think it's also about building capacity within various communities to be more full participants in the process. I think there's some interesting work we could do there. So I'm throwing that out there as a possibility.

Chair Davis: That's a great bullet point to add. That's come up in a variety of presentations including the one that Carrie gave, making funding available specifically for underserved communities. So I think that is a really important one to add to the list.

Jocelyn?

Dr. Runnebaum: Yes. I think that this conversation about interacting with National Academy of Sciences' working groups or subcommittees that are happening right now, there's one on fisheries and offshore wind.

And I heard Janet say there is potentially a role for MAFAC to engage, but it's unclear what that role is and what sort of weighing in we need to do.

And I think establishing a relationship or some form of communication between that working group and this advisory committee may help inform how we can continue to support the agency on offshore wind, fisheries, and their trust resources. So that's one new idea.

I think in terms of where do we start and how do we start, those lists are long and they feel really big. It's almost like we need to start with defining what climate-ready fisheries, climate-ready industries, or

climate-ready communities means.

And then we are able to start to build from there of how we can actually provide input to the agency or support to the agency. But I think starting with defining it.

I also want to recognize that we have that SNAPP group that is working on climate-ready fisheries and presumably coming up with a definition. So we have a member of the working group. And it seems like capitalizing on lessons learned there and creating a definition for the agency that's comfortable -- Pat's on that working group.

Ms. Lovett: What's the name of that group?

Dr. Sullivan: SNAPP.

Dr. Runnebaum: Yes.

Dr. Sullivan: It's the sponsoring group, which is Science, Nature, and People Project. And what we're doing is the climate-resilient fisheries element of that. Thanks. -- -- -- Jocelyn.

Dr. Runnebaum: Yes. So I think that's a really important body to rely on for the piece of work that's being developed around climate-ready fisheries. And then we can start to build from that to support the agency.

Chair Davis: Thanks for bringing that up, Jocelyn.

Pat, I'm just thinking that is a great way. And often the way we start our work is we choose one topic, and then we have others come in and give us either webinars or they come in person to our next meeting, and we gain information.

So I think that that's a great idea to think about others that are working on it, either within the agency or outside of the agency, and start to build some panels that come in and inform, bring you information in to help us formulate our best recommendations. That sounds really good.

We have Matt and then Linda.

Mr. Upton: I think in terms of the climate-resilient fisheries focus, I think that makes a lot of sense.

I just think about how we can also overlay that with making sure that the businesses are as well resilient. Sometimes when I hear the focus on climate-resilient fisheries I think, well, we'll see if the fishermen are so lucky to also be resilient.

In terms of the catch shares, I think there's a tendency if we hear things and want to be responsive to -- I think, Lucas, that's definitely something that folks may hear when they're back in their communities around catch shares and people having strong feelings about those.

I think some of those feelings are best directed towards the councils and Congress because catch shares, it's kind of like you really have to be specific in terms of IFQs, co-ops, LAPs. Is it a creature of Congress or is it a council? Is it a fishery that's already gone through a catch share or one of those different roads I just described or something new?

So I think we'd be probably better talking about how sometimes fisheries that will be impacted by some of these different things we're talking about may or may not be under a LAP or what have you.

I'm not sure it'd be the best use of our time to do this wholesale kind of -- what do people here think about catch shares? But Pat likes to be controversial, which I, myself, tend to be sometimes but I try to be low key in DC. So we'll see.

Chair Davis: Linda and then Brett.

Thank you, Matt.

Ms. Odierno: Thank you. I'd like to introduce a new topic that's kind of overarching. It's where we're going to be with seafood in the future.

If you look at the statistics, the US is on the cusp of

being a net importer of food. I think that's a critical concern.

The ability of a nation to provide nutritious food for its citizenry is really a cornerstone of national security. So we're going to have this problem across the entire spectrum.

People had enough trouble during COVID when they couldn't get toilet paper. If they can't get food, it's going to be a lot worse.

And we're looking at doing some promotion to increase consumption. A lot of the groups that are doing promotion are talking about two seafood meals a week. That's what is in the dietary guidelines. That would double our demand. If you add to that population growth, we have a huge demand.

Where are we with supply? A lot of the stocks are at maximum sustainable yield. We've seen stocks collapse. Aquaculture development in this country has not kept pace with production in other countries.

So now we're looking at this huge gap in the future between demand and supply. And how are we going to close that gap? You could look at the possibility of increasing imports, which we talked about yesterday, which we view as being problematic.

But if you look, there are some problems coming with some of those exporting countries. Some of those countries have rising middle classes. They're keeping more of their product at home so it's not available for export.

Big exporters like Vietnam are looking to markets that are closer to them geographically. So those imports may not be available to us in the future.

We can look at reducing our exports, keeping more of that product at home. And we can look at developing aquaculture. Now we've been talking

about for at least 12 years offshore aquaculture, which would be a way to produce more food in this country and to do it in a more environmentally friendly manner.

The other positive attribute of aquaculture is the idea of stock enhancement, which could benefit the wild harvest fisheries as well. I was wondering if we should make aquaculture development more of a priority.

We're definitely lagging behind other countries, and we have the opportunity and the resources to do it. It's just a question of getting the regulatory framework in place. We've certainly had time to look at that in depth. So my suggestion was maybe to move that forward.

Chair Davis: Thank you, Linda. I totally agree with you. And I think in terms of climate-ready fisheries, aquaculture is going to have to play a big role there. So thank you for bringing up your points.

Brett?

Mr. Veerhusen: It's really a request for Heidi and Pat when we are approaching -- from what I'm hearing, we should ask quickly about that review and the type of gaps that they're going to be assessing. And we should make that a priority.

I am curious to know if some of the gaps is simply understanding of basic knowledge of fishery management or the complexity of fishery management for participants, like the two young gentlemen who graciously gave their time.

I respectfully disagree with the gentleman to my right that -- I ran a national commercial fishing organization that represented fishermen coast to coast. And a catch share review was something talked about not just by a few fishermen who graciously gave their time here today but by fishermen nationwide.

So I think that we shouldn't dismiss their concerns that we heard. And I think we should investigate the complexity that they voiced. I heard five or six acronyms of ITQs, LAPs, IFQs.

How many more did you have? Co-ops.

And then saying it's best to be left for the councils, which under the MAFAC/EEJ comments were defined as really confusing and often times inequitable because that information is inaccessible. So to punt a confusing topic to another confusing body seems like not the right direction for MAFAC.

And I'd like us to really investigate the concerns that we heard by the two young gentlemen -- thank you, Sarah, for bringing them -- because I think that those are the ones and the people that we should be listening to most.

Chair Davis: Thank you very much, Brett.

Heidi, do you have a comment?

Ms. Lovett: Just actually a quick question. I thought some reviews have occurred in the past.

Pat, maybe you're familiar with it. Some NGO actually, I thought, helped hire a group to do a catch share review, i.e. my former company did a review, I believe. MRAG, I thought. I'll look for that and see just to share information. I thought some reviews had been done in the past.

Chair Davis: Stefanie?

And Clay, I also see you next.

Ms. Moreland: I think it's important for us to get comfortable with where we stand on hearing the really important impacts of catch shares on current and future harvesters. I'm certainly not interested in dismissing the merits of the concerns and questions that we heard from participants here yesterday.

I think, Brett, to your point, investigation is the key word. And for MAFAC to investigate at the level that's necessary given the context-specific importance of those kind of management programs. It seems to me like MAFAC couldn't efficiently add value to that important conversation.

I feel like there's other bodies that could better provide that review, and that we're in a position right now to provide other advice for guardian access with respect to outreach education, workforce development, value, market opportunity, consumer clarity, ensuring that there's a buyer on the other end that can support access once achieved.

So I'm not dismissing at all the concerns, confusion, criticism and negative impacts that catch shares can cause. I don't feel that MAFAC is in a position to add value there as much as we are other topics that are on the list right now.

Chair Davis: Thank you, Stefanie.

Clay?

Mr. Tam: Yes, just a quick comment on catch shares. Out here in the Pacific that's a major issue for us in terms of -- it may not be something for this committee to consider or decide, but I also sit on a -- I have a position on the WCPFC, the IATTC, the International Tuna Commission.

What we see out here is that the whole US quota for the Pacific is six percent of the tuna, only six percent. And we're supposed to be one of the larger nations out here competing for this resource. Again we get handicapped.

This is an issue that I believe involves the State Department in negotiating a larger quota for our fishermen out here. Six percent is a drop in a bucket, and yet 90 percent of our trips are in international waters. We compete directly with China, Taiwan, Vietnam, Japan.

That's the reality of it out here. It would help to increase that quota, even to 10-15 percent to help buffer this inequity in terms of the position in the tuna quota.

And in addition, you've heard me mention that our only American cannery in American Samoa is on the verge of closing because it's been proposed to close some of the PRIA areas down there. That would directly affect the cannery in terms of US purse seine boats fishing in our area and supplying that cannery.

And so on a bigger scale, yes, catch shares is a difficult thing to do. But for us out here, I think that we need to have some relief in terms of increasing that.

And also, not being able to fish within our own EEZ really doesn't help the cause out here. We're in a difficult position. But I think that if there was any resolve to that, that'll be important for us to at least sustain the fishery and move forward.

Our fishery is probably one of the most regulated fisheries nationally. Bird mitigation, marine mammal mitigation, we do it all. We compete against nations that are not on the same level playing field as those nations out there that either ignore or use those privileges in terms of observer coverage, data generation.

So on a bigger scale we're faced with this type of competition out here. I just wanted to put that on the table. Thank you.

Chair Davis: Thank you, Clay, for your input.

Jocelyn, and then I'm thinking that we should probably come back to the overall focus and who might like to chair or co-chair so that we can talk about that. Start thinking about the upper level. I'll come back to that in a minute but, Jocelyn, go ahead.

Dr. Runnebaum: I actually think I was going to try to do the same thing that you were doing right now.

I just want to recognize how, for lack of a better word, emotional catch share conversations are. And I was hoping that we could put a pin in this conversation and think about our role as MAFAC and what sort of policy implications we could have with regard to the catch share conversation.

We are a consensus body and I have not heard a consensus around this table yet. And I am sweating and nervous about the topic. I don't think I'm the only one.

So I just want to really try to remember -- I keep reminding myself, because I'm desperately wanting to dive into marine mammals, where the policy impacts are that we can have as a body at the agency. I think that's the conversation that feels overwhelming in addition to all these other ones.

I'm with you on transitioning.

Chair Davis: Thank you, Jocelyn.

Tom, I'm going to come back to you in a minute. Jennifer has her hand up. I look forward to her addressing us in regards to, I'm hoping, our work plan.

Thank you, Jennifer.

Ms. Lukens: Thanks, Megan. Just reflecting on the conversation yesterday, some of the new elements that have been added to it today, and the conversation over e-mail that I had with Janet.

I think it's really important to her to hear what you all have, what your thoughts are, and where you would like to contribute to NOAA as value-added recommendations. That's really important to her.

So whatever comes out of our discussion today, I am going to be taking that to Janet and the rest of our principals to get any feedback from them this

evening.

I heard a lot of really good topics. I would encourage you all to get it to the point -- I think it was maybe Jocelyn who just said that, I don't know -- that focusing in on remembering a few things.

MAFAC is consensus-based recommendations. It takes time for MAFAC to develop recommendations on anything in particular. So the time scale of things is also another thing to consider on what you're going to take on.

And then also the third thing is where you think MAFAC -- there isn't another party providing input on that topic that you think you could have the most impact on versus many voices and other people reviewing things.

I don't want to lead where the conversation's going, certainly. I'm just offering those as kind of guideposts for as you're thinking about your next topics.

Catch shares is a difficult topic. And I'm not sure if that is as right as the climate-resilient fisheries topic that I've heard from everyone; well, most everyone.

In reflecting, that's what I've heard. I heard it from Janet, and I heard it from multiple members yesterday and today.

So I would encourage you to maybe sit with that. And if you do decide to go with one of those, think about how you would narrow down your focus a little bit more.

I can after today get some more input from our leadership team at NOAA Fisheries. So I offer that up as just something to think about in the conversation as we're going on.

Chair Davis: Thank you, Jennifer, for that guidance. Very, very helpful. Great that Janet is awaiting our discussion today.

Not to put any more pressure on us and to keep you sweating, Jocelyn. That's really valuable.

And in terms of the time thing, if you remember, the Workforce Development took about a year, if I remember right. The National Seafood Council took a year and a half. The EEJ took about four months. So that gives you some context in terms of time.

I often think that about a year is a good amount of time, especially to sink ourselves into something as broad as climate-ready fisheries. There's a lot of information that we'll be able to gather.

Climate-ready communities, climate-ready businesses, how to incorporate EEJ into this, how to incorporate budgets into this. So that was really helpful, the time thing, the consensus definitely.

And then the topic where we can have the most impact because we want our work to go to leadership and to commerce with the strongest recommendations that they will want to act on it, and others outside of MAFAC and NOAA can also act on it. So thanks again, Jennifer.

Tom, with that said, I'm going to go ahead and -- you have your hand up. Do you have some comments regarding the broader topics?

Mr. Fote: Catch shares is one of the most divisive issues that we see in the commercial, and somewhat when we talk about sector separation in the recreational community. And I was around when the first one was put in. It was the surf clam.

I never saw a bigger disaster in my life when people that got the biggest quotas were people that cheated on what they were landing because that created the history. Because we didn't have good data back then.

And also, by the time we finished -- the guys that were not only bringing the surf clams but others got dredged in with their surf clams got caught. And

basically, they were buying quota all over the place. So it wound up in a complete mess.

We used to have 100 captains showing up to meetings with crew and everything else. Now you've got accountants and two bankers showing up.

It divided the Marine Fish Conservation Network because they couldn't agree what they wanted. Some of the environmental groups wanted the last five years and things like that, and they couldn't agree so it actually broke apart the groups that belonged together.

Chair Davis: Tom?

Mr. Fote: So I think we should stay away from catch shares.

Chair Davis: Okay.

Thank you, Tom, for those comments.

We're going to circle back to Stefanie and then to Pat.

Ms. Moreland: Thanks. I'm hoping that church and state is a high enough level topic.

I think MAFAC is really well positioned to be a connector of science and management as we look ahead. So I think this is really an important point that came up when we were talking with Cisco and something that we could help tackle.

I think it can be in the bucket of climate readiness. It certainly is already in what we need to move forward in terms of ecosystem and anticipating forward information needs.

And to tie in where Jocelyn's been wanting to go back to, we really need more population-level information for those out-of-scope species, non-target species.

We have good understanding and the science

community can address fisheries' assessment methodologies given the resources to do so, but we're really in a data deficit with respect to some marine mammals' population level, impact, and interaction data.

And seabirds is in a similar spot and not within NOAA. That's a concern.

So we're going have to get ahead, and try to find ways to collaborate in order to make our ecosystem aspirations actionable to be able to start to get them working on data that kind of fits in with our world and fisheries management decision making.

Chair Davis: Thank you for that, Stefanie.

Pat?

Dr. Sullivan: Very briefly and thank you for allowing me to do this. I'm not opposed to setting catch shares aside.

I don't think we should make a decision on whether we'll reach consensus or not. I think this group would have a lot to say about these things. We should be able to dive in, even if we feel there's controversy. Thanks.

Chair Davis: Absolutely, yes. Thanks for that.

Jocelyn? Go ahead.

Dr. Runnebaum: I guess my response to that would be as we think about climate readiness and the management aspect, I don't think it's a conversation that can be avoided because there are management approaches that either will help or hinder flexibility within the management system.

So I don't think it's a conversation that's fully avoidable. I think it's a conversation that we couch in a context that has policy implications and not specific management implications with regional context that's valid.

Chair Davis: Okay. That makes a lot of sense what you both are saying. It can fall in nicely as one of the topics under climate-resilient fisheries.

So is anybody having this burning desire to say yes, I want to be the chair or co-chair? I know we haven't finalized things of what we're going to do, but I do need to have a feel for who is looking to be part of the working group.

Dr. Sullivan: Did we decide what the topics are?

Chair Davis: Okay. Heidi said I don't have to choose a chair or co-chair yet. Okay, good.

Ms. Lovett: But hands?

Chair Davis: But hands on who -- the working group topic is not well defined yet, as we know. Today the things that kept coming up were the climate-ready fisheries, climate-ready communities and businesses.

The focus on communication is overarching, building community trust and building capacity in under-served communities. So the whole communication aspect is definitely a very high-focus area.

And then many things that come under the climate-ready fisheries, including just beginning with a definition and seeing where it branches out from there. Okay. So those are some topics that we've come up with.

Yes Heidi? Thanks.

Ms. Lovett: First of all, I just want to note it doesn't have to be one work group. It could be a couple. The communications aspect might be easily teased out and might have some concrete things under it that people could work on.

And what we could potentially do is we do have a big block of time tomorrow. This isn't the end of the conversation.

So if people want to think about it and then potentially, if there's two or three sort of work groups, or subcommittees if something fits naturally under a subcommittee, those groups could spend some time.

Smaller groups of people could sit down together, and think about and potentially come up with some themes or topics to think about creating that more firm work plan.

It might help being in sort of smaller groups, like a few people thinking about the communications, a few people thinking about climate ready, or any other topic you design today. Just to break it up a little bit and use a different way of working through the topics.

Chair Davis: That's great, Heidi. Thank you for lowering the pressure. And not only that, giving us many different options and avenues there.

Stefanie, Sarah, Sara.

Ms. Moreland: While people think about that climate readiness bucket, I would like to nominate Linda to help lead some additional discussion.

And I feel like the area around trade/tariffs can all be framed as agency next steps and opportunities that are complementary to the seafood strategy. We reviewed a draft and commented on that and many of the themes around trade and US positioning with respect to seafood production.

It could be framed in that so it's complementary to where the agency seems to be going anyway. Linda seems knowledgeable and animated on those issues.

Chair Davis: Stefanie has brought a third topic to the table, just so we all know. We can have some more discussion around that as well.

Sarah and Sara.

We won't lose that thought, Stefanie.

Ms. Schumann: Heidi just sort of alluded to this a minute ago but I was going to ask -- it seems to me that the topic of climate-ready fisheries would fit in nicely as an ecosystems subcommittee topic. We don't have an ecosystems subcommittee but this could be a great reason to convene one.

And I wanted to know if there's any difference in terms of the approach in the way a work plan works whether it's taken on by a subcommittee versus a work group.

Ms. Lovett: So there is a committee. It just hasn't been as active the last few years because they did - - they were actually the parent of the Columbia Basin Partnership Work Group effort. But you're right. It needs to be kind of rejuvenated and populated. That makes sense to me, if it feels comfortable for everybody.

How the work gets done is really not different. It's just historically MAFAC has had these five standing committees. It just adds a little more structure to MAFAC.

As needed, work groups are usually themes or topics that cross those committees. So people, like, from rec fishing and commerce sat together on the Workforce Development thinking about things. That was a cross-subcommittee topic. That's what a group technically is by the way we defined it in the charter.

Chair Davis: Thanks for bringing that up, Sarah.

It's my understanding that there is not a chair of that subcommittee.

Ms. Lovett: No, although somebody has volunteered previously.

Participant: That was six months ago. I don't know if that offer still stands.

Ms. Lovett: Okay. That can be flushed out later.

Chair Davis: Okay. That sounds good.

Sara?

Dr. McDonald: So many more things to respond to. I love the idea of having Linda chair that topic. I think it fits in nicely with the national seafood strategy as an addendum to that.

I love the idea of putting the climate ready stuff in the ecosystems even though there's also the business and the human component to it. So as long as we don't lose sight of having the underserved and resilient communities and resilient businesses within that ecosystem one, I don't see why not.

And this is more of a process. I'm probably getting ahead of myself. Going back to Pat's SNAPP group, I think it would be really helpful once they're finished for Pat to maybe just give us a little bit of a webinar on how you guys defined resilient fisheries, and a little bit more about the work that you guys did.

I'd be really interested in hearing about that. That's all I got.

Chair Davis: Thanks for that. The trade topic would fall under the Commerce Subcommittee, which I believe is chaired with Roger and Sebastian.

Ms. Lovett: Yes. To date, Roger and Sebastian have chaired the Commerce Subcommittee. And as it turns out, the two of them will term out by summer of 2023 in July. Their terms end. They will then have served six years on MAFAC. So it's an appropriate time to identify a new chair for that subcommittee.

Chair Davis: Okay. Thanks for that information.

Meredith? You don't even have to put your hand all the way up.

Ms. Moore: Thank you. I was just waving it around because I was trying to figure this out. I actually don't know if this is helpful, but that's never stopped me before in this meeting.

In my mind, we've sort of identified five things. If I was to make a bullet point list, this is my sum total of five things. They have little other things below them.

We've got the communications section, which sounds like it's communication around complex topics, correcting misinformation, building support for agency initiatives, maybe talking about the budget more, if there's things like that that we could weigh in on.

I've pulled climate out of that because I think climate goes someplace else. I wrote this down too but I see you're taking notes.

Two, the lowering barriers to participation one, which I threw out there, which is the EEJ, young fishermen, maybe tribes talking about building capacity of people to engage in the management process and to represent their interests, that sort of thing. So that's maybe two.

Three, and I don't know what to do with this one but slide 6 on our thing is still recreational angler issues. So I've put rec angler stuff back in there because I feel like we've not talked about that one. So that's three.

Four, and this may not work but I've now combined trade/tariffs issues complementary to the seafood strategy, plus maybe the under-utilized species thing that was previously noted as well. I don't know if that fits there but I felt like we were losing that one.

And then five is the big bucket of all things climate, which I have actually narrowed down to a number of sub-points but climate.

I don't know if that's at all useful. I was trying to tease apart the things we've identified with some consensus that we might want to work on. So I offer that in case it's useful. And that's what I've got to offer you.

Participant: What about the separation of church and state? That's such a big gap --

Ms. Moore: It's in the climate ready -- if it's helpful, I've defined it as climate-ready marine resource management, which the first bullet is defining climate-ready fisheries and maybe other trust management resources' climate readiness, which in my mind includes people inherently because when I use the word fisheries I mean literally also the people. So that's just noting that.

The second one for me is management approaches or policies to increase fish stock and fish community adaptation and resilience to change, which I put disaster reform, bridging the science to management gap, and addressing those barriers plus case studies. And then maybe the new entrance in under-served community resilience in the face of climate change. The last one is budget needs under climate that I put together.

Again, I don't know if it's useful for me to read notes out loud. I was having trouble keeping track of where I thought we were coming to a list. So if my exercise was helpful to anyone else, I just thought I would share.

Chair Davis: Thank you very much, Meredith. That's great. I think defining the buckets is really helpful and how they might overlap is another point as well. So thank you for doing that.

Pat?

Dr. Sullivan: Yes. What Meredith went through reminded me -- she commented on the recreational slide. Kellie had said some things before she left. The note I wrote down from her was rec fish put

into buckets.

So in reviewing the slide, it's kind of vague. Much of that we've already done. If there are issues there that we think should be addressed, maybe we put them into one of the other categories is how I'm reading my note from her in my own reflection on that. So I'll just put that out there.

Chair Davis: That's a good point, Pat, which was done in the Workforce Development plan. Yes, definitely.

When we talk about the fisheries or seafood industry, the trend that I've seen in MAFAC is wild fisheries, aquaculture, and recreation. So it makes sense to always -- I don't know about always, but to keep that trio together.

Dr. Sullivan: Yes. I mean, if Tom or somebody else sees something here they want to chair and jump in or whatever to do that. We did spend a lot of time on the electronic monitoring, the fishery part, and then of course the comment on the fisheries policy element.

That's not to say we can't do more. And of course, other things have come up. But some of these things are -- like, access to the fishery was also true in the commercial element. Anyway, I'm just trying to help narrow the band here a little bit.

Chair Davis: Yes. Thanks for that, Pat.

It looks like our -- do we have four subcommittees?

Ms. Lovett: Five.

Chair Davis: Five, okay. Anyway, the ecosystem, the recreation, and the commerce is a lot of overlap. It's an integrated approach. And probably the other one is strategic planning.

Ms. Lovett: And budget.

Chair Davis: And budget. You know, even budget --

(Simultaneous speaking.)

Chair Davis: Sorry, Sara.

Does that make six then?

Ms. Lovett: There's five.

Chair Davis: Okay. Strategic planning and budget is together.

Ms. Lovett: Yes.

Chair Davis: Yes. Actually even that has a big, overarching role in this too as we talked about the budget. Okay. Not to get off topic on those, but it's good to remind ourselves that we do have these subcommittees and how they all integrate.

Meredith, did you have something else that you'd like to say?

So, Tom, if you could provide a short comment, we're actually going to wrap up this session. I think we had some good dialogue today and we do have another period of time tomorrow.

Jonathan, I'm sorry. If you and Tom can both have short comments, we'll then wrap up this part of the session and we'll move on to our Workforce Development Committee work.

Mr. Fote: Yes. I look at the fact that recreational fishing, aquaculture, and commercial fishing are on every one of those committees as a unit because it affects all the organizations that we're looking at.

If we talk about climate change, it affects aquaculture. It affects recreational fishing and commercial fishing.

It might affect us a little differently, but a lot of times the commercial and the recreational are right in there together because the quotas are all set up. If there's two of us, they're split up after we put all the precautionary approaches into it. So it's really

an ongoing process.

There's specific things, like specifically I don't need to go on one where you're doing tariffs because I don't have to worry about tariffs. But in other situations, I need to be involved in all those.

To pure recreational people on here, I've been spread thin and going to a lot of committees which I normally wouldn't have been on for protected resources and things like that. I've been on almost all of them or sat through a couple of them at least.

Chair Davis: Thanks for that, Tom.

Jocelyn?

Dr. Runnebaum: Yes. I think I had a similar point to Tom. And I appreciate Sara's comment about maybe climate readiness falls under the ecosystem subcommittee.

But given that protected resources, aquaculture, recreational fisheries, and commercial fisheries all touch down in the climate readiness and management, not to get into full structure but it might make sense as a working group to start, and then can transition if it needs to have a home more permanently. Or it just is something that we all take back to our subcommittees as learning.

Chair Davis: Yes. That's a good point. I think when we look at the subcommittees, if there's some redefining of chairs that we need to do, those chairs can also maybe work together as the co-chairs of working groups as well.

There's lots of different ways we could look at that structure, but I'm glad we had that dialogue because it's also a new dialogue for those that are new to MAFAC. So it's nice to bring that out.

Okay. We'll have more time tomorrow. I think we made some great progress. Some great discussions and good topics came up for sure. Unless there's

any last-minute discussions, we're going to close this conversation for now.

Heidi has something she'd like to say.

Ms. Lovett: Just before we officially close, I think Meredith captured really well the conversation. I've been trying to take notes. And we all think differently so capturing it in that list was helpful.

But I just want you to be in discussion about -- who might do what is important. And also, Megan already said think about what you want to step up and help work on.

And think about if there's five different potential subgroups, it might only be two or three people to a group. So think about if you have the capacity to work on more than one group. I'd like everybody to sort of sleep on tonight where you see yourself fitting in for the year moving forward.

A lot of you stepped up and quickly worked on the EEJ work. That kind of fell outside of any of the normal subcommittees.

We usually do ask people to sort of self-identify where you would like to work generally speaking, what subcommittees you'd like to be on. So now is maybe a good time to reflect.

You don't have to stick with what you told me last May or June. We can pull up that spreadsheet and people can move themselves around.

So I just wanted you to think about what you have time to do, how much work could you do over the next year because we realize you're volunteers in this capacity.

And which of those five topics, potentially if it's too much at first, what do you maybe want to work on first, like two or three topics, and then shift to something else later. That's another strategy for addressing things. So everybody can think about

that, essentially prioritizing.

Chair Davis: Thank you, Heidi. That's really helpful. So Heidi, just processing.

Ms. Lovett: Yes.

Chair Davis: We're going to break into the subcommittee work time. Recreational Fisheries Subcommittee actually doesn't need to meet because you all had your action plan.

So this is officially the end of our meeting. And then those that want to stay on for the subcommittee work stay on for about another half an hour? Okay.

Ms. Lovett: Yes. And Gabriela, are you ready to help that group work through their document?

I would say officially we'll be closing the meeting.

(Whereupon, the above-entitled matter went off the record at 4:57 p.m.)