

U.S. DEPARTMENT OF COMMERCE

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

MARINE FISHERIES ADVISORY COMMITTEE

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PUBLIC MEETING

+ + + + +

TUESDAY  
NOVEMBER 28, 2017

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The Advisory Committee met in the Sheraton Silver Spring Hotel, Magnolia Room, 8777 Georgia Avenue, Silver Spring, Maryland, at 8:30 a.m., Terri Lei Beideman, Chair, presiding.

MEMBERS PRESENT

TERRI LEI BEIDEMAN, Chair; CEO, Vast Array Corporation

ERIKA FELLER, Vice Chair; Director, Marine and Coastal Conservation, National Fish and Wildlife Foundation

BOB BEAL, Executive Director, Atlantic States Fisheries Commission (ex officio)

SEBASTIAN BELLE, Executive Director, Maine Aquaculture Association

ROGER BERKOWITZ, President and CEO, Legal Sea Foods, LLC

JULIE BONNEY, Executive Director, Alaska Groundfish Data Bank, Inc.

RICHEN (DICK) M. BRAME, Atlantic States Fisheries Director, Coastal Conservation

Association

COLUMBUS HALL BROWN, SR., U.S. Fish and Wildlife  
Service (ret.)  
DAVID DONALDSON, Executive Director, Gulf States  
Fisheries Commission (ex officio)  
RAIMUNDO ESPINOZA, Environmental Consultant  
RANDY FISHER, Executive Director, Pacific States  
Fisheries Commission (ex officio)  
ROBERT GILL, Co-owner, Shrimp Landing  
ELIZABETH (LIZ) HAMILTON, Executive Director,  
Northwest Sportfishing Industry  
Association  
PETER MOORE, Fisheries and Community Development  
Consultant  
MIKE OKONIEWSKI, Pacific Seafood Group  
HARLON PEARCE, Owner/Operator, Harlon's LA Fish  
LLC  
ROBERT RHEAULT, Executive Director, East Coast  
Shellfish Growers Association  
PAMELA YOCHER, Senior Research Scientist and  
Executive Vice President, Hubbs Sea World  
Research Institute

NOAA STAFF PRESENT

JENNIFER LUKENS, Designated Federal Official;  
Director, Office of Policy  
RDML TIMOTHY GALLAUDET, Assistant Secretary of  
Commerce for Oceans and Atmosphere and  
Acting Under Secretary  
CHRIS OLIVER, Assistant Administrator for  
Fisheries  
LAUREL BRYANT, Chief of External Affairs  
KATHERINE CHENEY, Public Affairs Specialist,  
West Coast Region  
PAUL DOREMUS, Deputy Assistant Administrator for  
Operations  
REBECCA FERRO, Deputy Director, Fisheries Office  
of Communications  
HEIDI LOVETT, Assistant Designated Federal  
Official; Policy Analyst, Office of Policy  
MICHAEL RUBINO, PhD, Director, Office of  
Aquaculture

ALSO PRESENT

URBAN EBERHART, Secretary Manager, Kittitas  
Reclamation District

TOPHER HOLMES

JENNIE LYONS

KRISTIN MEIRA, Executive Director, Pacific  
Northwest Waterways Association

KATE NAUGHTEN

BARRY THOM, Regional Administrator for the West  
Coast

## CONTENTS

Welcome, Introductions and Agenda Review. . . . .	5
Report from the Assistant Administrator Chris Oliver . . . . .	7
Communications and Outreach Rebecca Ferro. . . . . Laurel Bryant. . . . .	.35 .62
NOAA Aquaculture Program Updates Paul Doremus . . . . . Michael Rubino . . . . .	.94 100
Working Lunch Columbia Basin Partnership Taskforce Barry Thom . . . . . Kristin Meira. . . . . Urban Eberhart . . . . . Katherine Cheney . . . . .	149 174 186 233
Report from the Acting Under Secretary of Commerce for Oceans and Atmosphere RDML Timothy Gallaudet . . . . .	263
Subcommittee and Working Groups. . . . . Resilience Working Group (Magnolia)	333
Task 6 - Management Approaches  Commerce Subcommittee  (Magnolia Pre-Function)	
Adjourn. . . . .	403

1 P-R-O-C-E-E-D-I-N-G-S

2 CHAIR BEIDEMAN: Welcome to this MAFAC  
3 meeting here in Silver Spring at 2017, and late  
4 November, and I appreciate everybody having to  
5 push it past Thanksgiving and come in right after  
6 Thanksgiving, primarily because of a schedule  
7 conflict of mine, so I appreciate that very much.  
8 And so I think the first thing we'll do is go  
9 around the room with introductions, so if we  
10 could that would -- oh, introduce myself? You  
11 know who I am. I'm Terri Beideman, and I'm  
12 currently the chair -- actually, I'm Terri Lei  
13 Beideman, and I reside in New Jersey, I grew up  
14 in Maine, and I represent fishermen, commercial,  
15 and I have a business that has clients from  
16 across the spectrum of fisheries and other  
17 research projects, so I've learned a lot being on  
18 MAFAC, and I appreciate everyone's help.  
19 Everyone around the table has been helpful to me,  
20 know it or not. So thank you, and with that, I  
21 guess we'll start over there with Mr. Fisher.

22 MEMBER FISHER: I'm Randy Fisher; I'm

1 the Executive Director of Pacific States Marine  
2 Fisheries Commission.

3 MEMBER DONALDSON: I'm Dave Donaldson;  
4 I'm Executive Director of the Gulf States Marine  
5 Fisheries Commission.

6 MEMBER RHEAULT: I'm Bob Rheault; I'm  
7 the Executive Director of the East Coast  
8 Shellfish Growers Association.

9 VICE CHAIR FELLER: I'm Erika Feller;  
10 I'm with the National Fish and Wildlife  
11 Foundation, Director of Coast and Marine  
12 Conservation.

13 MEMBER HAMILTON: Good morning, Liz  
14 Hamilton with Northwest Sportfishing Industry  
15 Association.

16 MEMBER YOCHER: Hi, Pam Yochem with  
17 Hubbs Sea World Research Institute, and I'm also  
18 the subcommittee chair for the Ecosystems  
19 Subcommittee, MAFAC.

20 MEMBER BRAME: I'm Dick Brame; I'm the  
21 Regional Fisheries Director for the Coastal  
22 Conservation Association.

1                   MEMBER BERKOWITZ: Good morning, I'm  
2 Roger Berkowitz, owner/operator of Legal Sea  
3 Foods based out of Boston, we're in nine states,  
4 we're in the restaurant business also. We  
5 consider ourselves in the fish business that we  
6 process fish and we're, in addition to the  
7 restaurants, retail across the U.S., and  
8 sustainability is important to me and this is my  
9 first meeting, pleased to be here.

10                   MR. OLIVER: Good morning, Chris  
11 Oliver with NOAA Fisheries, National Marine  
12 Fisheries Service, and I'll talk a little bit  
13 more about myself in a little while.

14                   MS. LUKENS: Good morning everyone, I  
15 am Jennifer Lukens; for those of you who I  
16 haven't met yet, I am the Director of the Office  
17 of Policy at NOAA Fisheries. I also have the  
18 title of Designated Federal Official for MAFAC,  
19 being a federal advisory committee with the  
20 Executive Director as one of my many roles at  
21 NOAA Fisheries, and really happy to be here today  
22 and really excited to have some new members on

1 board. So thanks, Terri.

2 DR. DOREMUS: Good morning, Paul  
3 Doremus, it's a pleasure to be here and to see  
4 everybody and welcome new members as well. I'm  
5 currently since January been assisting with the  
6 transition to the new administration and have  
7 been acting as the Assistant Secretary for  
8 Conservation and Management. Later today, you'll  
9 be hearing from Admiral Tim Gallaudet, he was  
10 confirmed by the Senate in late October, October  
11 26, for the position that I'm currently sitting  
12 in. So he -- as soon as he got into that  
13 position, he was pushed to be the acting  
14 Administrator, so he is currently acting as  
15 Administrator for NOAA, and tomorrow that  
16 position will be vetted by the Senate, with the  
17 nomination of Barry Myers that the administration  
18 put forward a number of months ago. So when Mr.  
19 Myers is confirmed by the Senate as we anticipate  
20 and is seated, then Admiral Gallaudet will return  
21 to this position, and I'll return to my happy  
22 home at the National Marine Fisheries Service as

1 your friendly DAA for Operations.

2 MEMBER MOORE: I don't have quite the  
3 transition, but I am most recently with the Ocean  
4 Observing System in the mid-Atlantic, part of the  
5 IOOS system. I'm now working with industry in  
6 the east coast, both shellfish and finfish, as  
7 well as the commercial fishing industry on a  
8 couple of projects that we have going related to  
9 ocean chemistry and weather. And my name is  
10 Peter Moore, sorry.

11 MEMBER BELLE: Good morning, my name  
12 is Sebastian Belle; I'm the Executive Director of  
13 the Maine Aquaculture Association, glad to be  
14 here. Thank you.

15 MEMBER BROWN: Good morning, I'm  
16 Columbus Brown, retired U.S. Fish and Wildlife  
17 Service, previously on the Gulf, South Atlantic  
18 and Caribbean councils.

19 MEMBER ESPINOZA: Buenos dias, good  
20 morning everybody. Raimundo Espinoza, Director  
21 for the NGO Conservacion ConCiencia under the  
22 fiscal sponsorship of the Ocean Foundation.

1 We're an NGO that works collaboratively with  
2 commercial fishermen as well as recreational to  
3 try to promote sustainable livelihoods as well as  
4 the protection of marine resources. Thank you.

5 MEMBER GILL: Good morning, I'm Bob  
6 Gill, another MAFAC newbie like Roger and  
7 Sebastian. I'm down in Florida, I have a fish  
8 house down there, been on the council, currently  
9 on the council at Gulf Council SSC, and spend my  
10 time in fisheries, things like MRIP, et cetera,  
11 and this. Thank you.

12 MEMBER PEARCE: Hi, I'm Harlon Pearce,  
13 I'm just a fish processor out of the great state  
14 of Louisiana and distributor, past member of the  
15 Gulf of Mexico Fishery Management Council and all  
16 those wars, chairman of the Gulf Seafood  
17 Institute, and proud to be a part of MAFAC.

18 MEMBER BONNEY: Julie Bonney, Alaska  
19 Groundfish Data Bank, which is out of Kodiak. I  
20 work for both processors and trawlers, and this  
21 is my last meeting and I am the subcommittee  
22 chair for Commerce.

1                   MEMBER OKONIEWSKI: Mike Okoniewski,  
2 Pacific Seafood, I've been in the industry for  
3 about 48 years I guess, 23 years at Pacific,  
4 worked in Alaska, Canada, Mexico, sold fish,  
5 bought fish, processed fish, and worked quite a  
6 lot with fishermen on different causes and just  
7 as good friends. So thank you.

8                   MS. IRWIN: My name is Adele Irwin;  
9 I'm in the Fisheries Policy Office and providing  
10 meeting support.

11                   MS. LOVETT: Heidi Lovett, the  
12 Assistant Designated Federal Officer for MAFAC,  
13 and in the Office of Policy.

14                   MEMBER BEAL: Sorry I was a few  
15 minutes late. I'm Bob Beal; I'm the Executive  
16 Director of the Atlantic States Marine Fisheries  
17 Commission.

18                   MS. LUKENS: Okay thank you, Terri.  
19 There's a few things I just want to run through  
20 for everyone today. The gentleman in the far  
21 corner up front there is our court reporter, so  
22 if you are going to speak, please acknowledge

1 your name so he can keep an accurate  
2 representation of our conversation here today.  
3 I'm hoping everybody has Internet access; they've  
4 been able to do that. There are papers on the  
5 table that show you how to get onto the Internet  
6 with the password. As Terri said, make sure that  
7 you have filled out -- we are having a working  
8 lunch today when we talk about the Columbia River  
9 Basin Partnership Task Force today over lunch, so  
10 please make sure that you get your orders in to  
11 Adele or to Heidi.

12 And I just wanted to say also for  
13 folks to be thinking about with a lot of members  
14 leaving, this is their last meeting and a lot of  
15 new members at this meeting, be thinking about  
16 committee membership and what we have. We have  
17 six subcommittees on MAFAC itself, and three task  
18 forces, so we will be losing some of our  
19 leadership of those subcommittees and some of our  
20 membership for you all to think about what you  
21 would be interested in participating as we go  
22 through the meeting. So with that, that's kind

1 of some of the logistical housekeeping things to  
2 run through; does anyone have any questions? All  
3 right.

4 I have the pleasure of introducing  
5 Chris Oliver, who is sitting to my right here.  
6 He is the Assistant Administrator for NOAA  
7 Fisheries. He has been -- he's our newest -- one  
8 of our first political appointees that has  
9 arrived at NOAA, and has come to us from a  
10 distinguished career up in the North Pacific  
11 Fishery Management Council, and we are super  
12 excited to have him here at NOAA Fisheries and  
13 with the background that he has, he has jumped in  
14 with both feet, and really had a lot thrown at  
15 him since he joined us several months ago, and  
16 he's been a pleasure to work with and really  
17 taken this leadership role head on. And he's  
18 going to speak to you today, and we're really  
19 happy that he could make the time to come and  
20 speak to MAFAC, and later today we'll have Rear  
21 Admiral Gallaudet come and speak to you all, so  
22 it's a great day to have a lot of NOAA leadership

1 here. So we will kick that day off with Chris  
2 Oliver.

3 MR. OLIVER: And good morning  
4 everybody, and happy to be here and see a lot of  
5 you that I've known a long time, and happy to  
6 meet those of you that I haven't met before and  
7 look forward to working with you. This is a  
8 pretty new forum to me, I haven't been involved  
9 with MAFAC very much over the years, so I'm  
10 anxious -- I'm not going to talk a long time; I'm  
11 more anxious to hear your proceedings and your  
12 discussions today. But a little bit about my  
13 background. I grew up, spent the first half of  
14 my life in Texas. I grew up in a small coastal  
15 town; you may have heard about it on the news,  
16 Rockport, Texas, which was right in the eye of  
17 Hurricane Harvey. I'm happy to say that my mom's  
18 house is fine, she still lives there in Rockport,  
19 and I went down there for four or five days after  
20 the hurricane and helped clean up. I know some  
21 of you this year went through hurricane issues as  
22 well, so hopefully everything is good in your

1 part of the world.

2 But I spent roughly the last half of  
3 my life living in Alaska, working for the North  
4 Pacific Fishery Management Council, the last 16  
5 years as its Executive Director, and through that  
6 process where I got to know a lot of you that are  
7 in this room. So you know, given that  
8 background, it's no surprise that I'm a big  
9 supporter of the council system and employing  
10 regional solutions to regional problems, and so  
11 I'm, again, anxious to see -- and I'll talk a  
12 little bit about Magnuson Act reauthorization in  
13 a moment. But again, it's been an incredible  
14 four or five months since I've taken this  
15 position. I remember over the last 27 years  
16 coming to Washington, D.C. for various reasons  
17 and saying many, many times I would never live in  
18 Washington, D.C. But I am here now, and it's  
19 been a real challenging but never boring and  
20 exciting learning experience, and the folks at  
21 the agency here have been incredibly welcoming  
22 and supportive and helpful bringing me on board

1 and transitioning me into the position.

2 I've got a tremendous amount to learn,  
3 it's been four or five months and I just now feel  
4 like I'm getting my feet under me, and starting  
5 to understand the operations of the agency. I've  
6 had hundreds of briefings on internal operations  
7 and issues around the country; obviously I've  
8 been in Alaska for 27 years and got to know  
9 Alaska issues pretty well, but some of the --  
10 many of the other issues around the country, it's  
11 been an amazing learning experience learning the  
12 new processes like this, and the Commission  
13 processes that I haven't been intimately involved  
14 with. And I've had hundreds of briefings on  
15 issues, hundreds of meetings with constituents,  
16 dozens of meetings on the Hill with senators and  
17 congressmen and staff, and just really learning  
18 sort of the lines of communication and dynamics  
19 across the different NOAA line offices and up the  
20 chain to Commerce and to the White House, to OMB,  
21 CEQ. So I'm still kind of drinking from the fire  
22 hose, but it's turned down just a little bit

1 compared to the first few months I was here.

2           So one of the things people have asked  
3 me: what's your philosophy, Chris? What do you  
4 want to accomplish? And I said well, part of the  
5 answer is I really need to get a better  
6 understanding of the issues that are -- and  
7 challenges of all the different fisheries around  
8 the country before I start proclaiming grand  
9 solutions to those issues, so I'm still in that  
10 learning process, and you're an important part of  
11 that. But one of the first things that was put  
12 in front of me when I got on board here was the  
13 NOAA Fisheries Priorities and Annual Guidance  
14 document. Hopefully you're familiar with that  
15 document, it's not lengthy it's oh, I don't know,  
16 15 or 20 pages, but it lays out three overarching  
17 goals for the agency, and then from that a list  
18 of priorities and anticipated results. And I was  
19 given the 2017 document and said Chris, we need  
20 to update this for 2018.

21           And just to give you an idea of some  
22 of my overarching philosophy I guess, when I

1 looked -- the three overarching goals haven't  
2 changed much, but they've changed in a subtle  
3 way, and as an example, the first goal in that  
4 document was to ensure the sustainability of  
5 fisheries and fishing communities. And I changed  
6 that to say maximize fishing opportunities while  
7 ensuring the sustainability of fishing and  
8 fishing communities. And the second goal was to  
9 recover and conserve protected species, and I  
10 added the words "while supporting responsible  
11 fishing and resource development." And the third  
12 goal was to improve organizational excellence,  
13 and I added the words "and regulatory  
14 efficiency." And they aren't significant wording  
15 changes, but I think they are in some ways  
16 significant because from those words flow the  
17 priorities and anticipated results, and I think  
18 that those subtle changes reflect -- better  
19 reflect the philosophy of this new administration  
20 and my own philosophy.

21 And I'm hopeful that -- and I tend to  
22 think of myself as a practical, more business-

1 minded approach; I've often over the years, those  
2 of you who have been involved in the council  
3 coordination committee process, the CCC process,  
4 have heard me complain about the bureaucracy and  
5 the regulatory morass and some of the  
6 difficulties of our regulatory process, and so  
7 I'm hoping to find a more practical and efficient  
8 and business-minded approach to our mission, and  
9 I think you've heard or seen the many executive  
10 orders that have come out of the administration  
11 that had to do with agency reform and regulatory  
12 reform, and they're extremely serious about that,  
13 and Alan Risenhoover is going to talk more about  
14 that specifically later today.

15           But I've asked our division directors  
16 to maintain that focus, that overarching  
17 background to look at ways to reduce the burden  
18 on industry, eliminate older, outdated  
19 regulations, look at reducing our timelines that  
20 we take for reviewing regulatory actions and  
21 implementing regulatory actions, and that  
22 includes -- I've come to learn we have an

1 extremely huge part of our mission is involved in  
2 Endangered Species Act and Marine Mammal  
3 Protection Act consultations and permitting  
4 processes, a lot of it relative to fishing, a lot  
5 of it relative to infrastructure activities that  
6 aren't directly related to fishing. And so to  
7 look at ways for more programmatic consultations,  
8 for example, on the ESA side and to streamline  
9 and expedite our MMPA permitting process.

10           On Magnuson-Stevens Act, I've had a  
11 couple of opportunities to testify; the  
12 administration hasn't taken firm positions on a  
13 number of the issues that are the focus of  
14 reauthorization. I can tell you that based on my  
15 experience in the North Pacific, I'm a firm  
16 believer in ACLs, annual catch limits, we've been  
17 using them up there for 40 years, and I think  
18 it's really the cornerstone of sustainability.  
19 But I also know that the progress that we've made  
20 since 2006 around the country on rebuilding  
21 fisheries and implementing annual catch limits in  
22 all our fisheries has not come without cost.

1 We've had to make some difficult decisions and  
2 basically absorb near term costs of conservation  
3 in exchange for long-term sustainability. But I  
4 think there are ways within that ACL construct,  
5 there are opportunities for some of our  
6 fisheries, particularly some of our recreational  
7 fisheries that don't lend themselves well to that  
8 annual catch limit model just because of in  
9 season data collection. And so I think we can  
10 look at ways for flexibility in both our ACL  
11 application and our rebuilding schedules.

12 Just to talk a little bit more about  
13 some of my, what I consider priorities, I think  
14 that again, ensuring that the regional councils  
15 have flexibility to tailor their management plans  
16 as well as the commissions, and to maximize  
17 fishing opportunities, I think that we have some  
18 -- there are fisheries around the country where  
19 we're not getting -- not harvesting the full  
20 available resources. I know some of this on the  
21 west coast -- Mike we've talked about this -- and  
22 part of that is due to inefficient regulatory

1 mechanisms, and some of those are regulations  
2 that are being developed, some of those are  
3 regulations that are on the books that we can  
4 take off the books. So I think we have to take  
5 advantage of opportunities to streamline our  
6 regulatory process, and it's not just the number  
7 of regulations, but the regulatory process  
8 itself, how our Magnuson mission overlaps with  
9 NEPA, for example. I think that when you look at  
10 our current budget situation, which is -- we're  
11 not looking at increasing budgets; we're probably  
12 looking at having to do more with less.

13           And so renewing the emphasis to me on  
14 our basic science and data collection mission,  
15 our core mission such as fish surveys is going to  
16 be important. With declining budgets and our  
17 aging vessel fleet, I think we really have to  
18 look at opportunities to enhance our cooperative  
19 research and figure out how to better utilize  
20 industry platforms to collect some of our basic  
21 science and research. And of course finally  
22 expanding our seafood production, we have some

1 amount of headroom, but limited headroom in our  
2 wild stock fisheries, and I think enhancing  
3 aquaculture, particularly marine aquaculture, is  
4 a huge opportunity for us to expand our seafood  
5 production. We're not going to erase the seafood  
6 deficit overnight, but we can certainly make  
7 inroads to it, and that's another priority of  
8 this administration is expanding aquaculture, and  
9 you're going to hear more about that from Paul  
10 and Mike Rubino later this morning.

11 So -- and I also have read the  
12 recommendations in the MAFAC report from December  
13 2016, abundant seas, and it was amazing to me how  
14 much some of those core recommendations overlap  
15 with things that we are doing, including the data  
16 and science based aspects, the flexibility in  
17 management, and talked a little bit with Harlon I  
18 believe this morning about framework actions and  
19 how we can better utilize those to be more  
20 efficient in our regulatory process. And seafood  
21 business and trade, particularly aquaculture,  
22 supporting recreational fisheries, another huge

1 priority of this administration. So the  
2 recommendations that were in your report are very  
3 consistent and completely in line with many of  
4 the priorities of this administration and our  
5 agency. So I look forward to your final report,  
6 which is related to data and its importance to  
7 frameworks and other mechanisms for fishery  
8 management.

9 I look forward to learning more today  
10 about the Columbia Basin Partnership Task Force,  
11 and I know that somebody warned me -- I think it  
12 was Bill Schwite -- that when I took this  
13 position, that I was going to learn more about  
14 Pacific Northwest salmon than I ever wanted to,  
15 and I have. Whether it's hydropower issues or  
16 water issues or pesticide issues, it's the  
17 Pacific Northwest salmon fishery and all the  
18 different pieces of that are something that I'm  
19 quickly learning more and more about. And so  
20 another big part of my learning curve. Paul  
21 mentioned that Admiral Gallaudet is going to join  
22 us today, and we're extremely happy to have him

1 on board; he's a very energetic and inspiring  
2 gentleman, and I think he's going to be a great  
3 leader for the agency, for NOAA, for as long as  
4 he's in that position, and so look forward to  
5 hearing from him today.

6           Anyway, I want to thank you all for  
7 your commitment and your time and effort that you  
8 put into MAFAC, and I'm looking forward to today  
9 and part of tomorrow and Thursday being able to  
10 sit with you and listen to your discussions. So  
11 with that, I'd be happy -- I think we have a  
12 little time if people wanted to ask some  
13 questions, I'm happy to engage in a dialogue for  
14 a little while about my experience and the new  
15 administration and where we're headed with NOAA  
16 Fisheries in general. Don't need questions, but  
17 if you have any, I'd be happy to --

18           MEMBER GILL: Bob Gill. Chris,  
19 welcome. Condolences or whatever, but have you  
20 got a feeling for the timeline of when the  
21 administration will weigh in on Magnuson  
22 reauthorization? Not so much as to where they're

1 going to go, but when they're going to provide  
2 that input relative to the ongoing process?

3 MR. OLIVER: Yes, like I said, I've  
4 testified twice and it's a bit challenging to us.  
5 When I was with the council, I could confer with  
6 my council chairman and maybe some of the council  
7 and kind of say whatever I wanted so to speak,  
8 but when the administration hasn't taken a  
9 position, and you're asked to testify on Magnuson  
10 reauthorization, it's a fine line to walk. So I  
11 base my testimony and philosophy largely on my  
12 experience, previous experience and previous  
13 times that I've testified. But we have talked  
14 internally about whether and when we might take  
15 positions, formal positions on some of these  
16 major issues; we haven't done so yet. We've also  
17 talked about -- and it's not just Magnuson,  
18 there's aquaculture bills and other bills that  
19 are circulating out there. We've also discussed  
20 the possibility of drafting and offering our own  
21 administration bill on Magnuson reauthorization,  
22 and we've made some progress on drafting aspects

1 of that, but we haven't completed anything. So  
2 I'm dancing around your question, Bob; I don't  
3 have a firm timeline on that, but I do expect in  
4 the next few months we'll be resolving some of  
5 those administration positions. And of course  
6 that's not just NOAA Fisheries, but that's all  
7 the way up the chain.

8 MEMBER BONNEY: I guess welcome Chris,  
9 but we miss you in Alaska, I'll say that right  
10 away.

11 MR. OLIVER: I miss you, too.

12 MEMBER BONNEY: And I'm very impressed  
13 by your opening statement and agree with many of  
14 the positions or direction for the agency, but I  
15 guess -- and knowing that I'm terming out, so I'm  
16 not going to be here on MAFAC, one of the goals  
17 for us is to advise the Secretary of Commerce and  
18 help in terms of policy direction, and for this  
19 meeting I feel like we really finished a lot of  
20 our work on the climate change, and most of the  
21 agenda pieces are really more informational than  
22 any kind of outcome for work products. And so

1 I'm thinking that you know, as you sit through  
2 the meeting this week, you might think about what  
3 our role might be to help the agency in terms of  
4 realigning the ship and what, you know, how we  
5 could help inform that in terms of your policy  
6 and direction.

7 MR. OLIVER: That's an excellent  
8 point, Julie. In fact, when we were in a meeting  
9 last week with Admiral Gallaudet discussing the  
10 MAFAC and going over the agenda and briefing him  
11 basically and myself on the MAFAC process, he  
12 actually made that very observation that given  
13 the composition of this group, it seemed to him  
14 that there would be the opportunity to get some  
15 very focused input on some key issues through  
16 this group. And so I think that thinking is very  
17 in line with what -- I think your comment just  
18 now.

19 MEMBER PEARCE: Chris, thank you for  
20 being here today, I mean I'm sure you're going to  
21 hear a lot of things that are of interest to you  
22 according to what you just said. And one of the

1 things that are very interesting to me is this  
2 group works very hard to put some good ideas on  
3 the paper to send to you. You mentioned the  
4 framework actions, which I firmly believe in as  
5 part of a mechanism and a management system, but  
6 part of the problem I see is that we need to  
7 follow through past what this group does and  
8 bring it into reality, and if we can figure out  
9 all the stuff that we've done here and have the  
10 councilmatic system work into that programs that  
11 we put together, I think it would be very  
12 important. All this hard work needs to go  
13 somewhere, and it needs to be finalized, and so  
14 it's in your lap basically to get some of that  
15 done. But I think that it behooves us all to do  
16 that, because we all know the quagmire we have at  
17 the councils at a lot of times, and if we can  
18 kind of sort through that with some of the things  
19 we talk about here today, I think that would be  
20 very, very important.

21 MR. OLIVER: I agree.

22 MEMBER OKONIEWSKI: Thank you, Chris.

1 Like Julie, I welcome your opening remarks. We  
2 on the west coast, besides salmon there's also a  
3 groundfish issue going on for some time and it  
4 seemed to be stalled out after the beginning of  
5 the implementation, which is still going on, of  
6 our catch share program, and needn't bog you down  
7 right now on any detail, but it -- in every case,  
8 I think you can relate it back to your opening  
9 statement about regulatory inefficiency and just  
10 the fact that some regulations are archaic in  
11 nature and really not meant to serve the purpose  
12 of a rationalized program. Being an industry  
13 person, I would well welcome a change I guess, or  
14 at least the acceptance of the fact that seafood  
15 production is important to this country, and I  
16 don't think we have exactly seen that tenor in  
17 the past administration the way it seems to be  
18 coming forward in this administration. And I am  
19 all about protections of -- and our company is  
20 too -- for the long term, and I probably agree  
21 with Julie in just a lot of what my thinking is,  
22 but I welcome a chance, especially with MAFAC, I

1 think to focus on some of these concerns or  
2 issues you brought up, and kind of this new  
3 change that's come about, and I hope we can  
4 contribute to that, so thank you.

5 MR. OLIVER: I'm hopeful that one of  
6 the things that I would hope my experience in the  
7 North Pacific would help in this position is  
8 we've always had an incredibly great working  
9 relationship between the industry and the fishery  
10 science and managers in the North Pacific, and a  
11 trust in the basic fish science, and I'm hoping  
12 that's something that we -- that's something we  
13 don't necessarily have in all of the regions, but  
14 it relates to your point Mike, I guess, and  
15 Harlon's point about frameworking. My experience  
16 too in the North Pacific underscores the value  
17 in, particularly when you look at a rationalized  
18 fishery like your catch share program on the west  
19 coast, the value in industry self-management, and  
20 many of our programs are set up so that the  
21 fishing industry is essentially taking on a lot  
22 of what would otherwise be a regulatory morass,

1 regulatory burden on the agency through those  
2 rationalized programs.

3 And I'm not suggesting that those are  
4 appropriate for every fishery, because I know  
5 they're not, but it's another example in addition  
6 to the frameworking where we can look at  
7 regulatory efficiencies. With regard to the West  
8 Coast region specifically, I've had some meetings  
9 with folks discussing some of the issues you  
10 brought up, Mike, with regulatory efficiency or  
11 archaic regulations. I also understand as part  
12 of the catch share review that there are a number  
13 of those issues that are being addressed or  
14 hopefully being addressed through the council  
15 process, and I know it's a slow process, but some  
16 of those are being addressed both through the  
17 council process and through efforts of our folks  
18 in the West Coast region. So hopefully we'll get  
19 there.

20 MEMBER OKONIEWSKI: Just for the  
21 record, I'm on the committee, the advisory board  
22 on that review group, so.

1                   MEMBER HAMILTON: Good morning. I was  
2 optimistic when you were named because we thought  
3 well, here's somebody who knows what a salmon is,  
4 knows what they mean to the Pacific Northwest  
5 both as the iconic and economic benefits that  
6 derive from salmon fishing. We have a Ballard  
7 Locks issue happening in the Pacific Northwest  
8 with interactions between marine mammals and a  
9 species of steelhead that are at a 90 percent  
10 chance of going extinct and being consumed only  
11 by sea lions; there's no fishing, there's no  
12 other effects on them. Has the administration  
13 been asked to comment on the current legislation  
14 to alter MMPA to deal with this hot spots, these  
15 pinch points where the interactions are leading  
16 towards extinction?

17                   MR. OLIVER: We were asked to provide  
18 comment, technical drafting assistance on one --  
19 I can't remember exactly which bill it was, the  
20 number of it or the name of it, but it had to do  
21 with making it easier to get those  
22 authorizations, and as an avid steelhead

1 fisherman myself, I am sympathetic to the issue  
2 that you raise. We have commented on it.

3 CHAIR BEIDEMAN: Any other questions?

4 Well thanks, Chris. I was actually noting that  
5 there was an awful lot that was in common with  
6 documents that we've produced within your  
7 remarks; I expect that you know, we work pretty  
8 well here with disparate views on things and try  
9 to come up with practical solutions that will  
10 assist, and are looking forward to working with  
11 you on whatever the next challenge is we have to  
12 deal with, but appreciate the fact that they  
13 really struck me as being very similar to a lot  
14 of the remarks that we've made to the  
15 administration. So I guess the next step is --  
16 we're ahead of schedule a little bit, but if  
17 you're ready, we have a mic. Oh, she's going up  
18 there.

19 MS. LUKENS: And thank you. This is  
20 Rebecca Ferro, she's our Deputy for our Office of  
21 Communications at NOAA Fisheries, and she's going  
22 to be talking a little bit to you all today about

1 a huge undertaking that we've done at NOAA  
2 Fisheries in terms of communication and outreach,  
3 and our fisheries website. So this is a pretty  
4 big deal, and Rebecca has been working quietly  
5 behind the scenes on this for I don't know, maybe  
6 a year and a half -- oh, three years. So while  
7 it may be what you see here is really a lot of  
8 thought has gone into this project and being able  
9 to communicate with our constituents and  
10 stakeholders and partners. So I will turn it  
11 over to Rebecca to talk about that. Thanks for  
12 being with us today.

13 MS. FERRO: Thank you, Jennifer. Can  
14 you all hear me? Good morning, I'm Rebecca Ferro  
15 with the Communications Office; I'm also the co-  
16 chair of the NOAA Fisheries Web Council. So  
17 we've been working for the past three years  
18 planning towards this major web transformation,  
19 and I'm here today to kind of give you a demo of  
20 Phase I, that's where we're at right now; we  
21 still have a long ways to go, but I want to give  
22 you some background on what we've been working

1 towards and what's coming up, what's ahead.

2           So when we originally started, we kind  
3 of got all our folks together on the  
4 communications side of the house, the IT side of  
5 the house, and we developed an agency guidelines  
6 for what we were trying to do, and it came down  
7 to two overarching goals: to improve our user  
8 experience and to improve our web efficiency and  
9 the cost effectiveness of managing our websites.  
10 So underneath all of those goals, there's a lot  
11 of different steps that we're trying to do. So  
12 what is it that we're trying to do? Overall,  
13 we're working towards merging 20 websites across  
14 our agency into one national website. This is  
15 going to make it easier for our users to come in  
16 and find what they were looking for; what we were  
17 finding was we had information on different  
18 species on five different websites, and that  
19 information was varying from one website to  
20 another. We're focusing on the user data, what  
21 are our users really coming into our websites to  
22 try to do or to find. We're also moving towards

1 mobile first; this is, you know, every website  
2 should be moving towards mobile first strategy  
3 because when folks go into Google and do their  
4 searches for content, all those mobile site first  
5 or mobile ready websites come up first in the  
6 search engine results.

7 We're also thinking long term  
8 planning, like trying to future-proof our website  
9 so that they're flexible in the future that we  
10 can kind of move as technology improves, we can  
11 improve with that technology. We're working hard  
12 to eliminate redundant and out of date content,  
13 and content that our users really don't care  
14 about. So it's a phased approach, too; it's a  
15 huge undertaking. We started actually measuring  
16 the satisfaction of our users that are coming  
17 into our site using this ForeSee customer  
18 satisfaction survey. The overall score of all of  
19 our websites came out to a 79, which leaves a lot  
20 of room for improvement across the board. We  
21 want to get to -- 75 is the government average,  
22 and we want to get to 75, even higher over time,

1 and that will take us a few years to get there.

2           So who's coming to our site? We took  
3 a look at who our audiences are; you can see our  
4 top audience is here, kind of all tie from  
5 government employees, scientists, the general  
6 public, recreational fishermen, and then we were  
7 sort of surprised to see the large number of  
8 students and educators coming into the site, too.  
9 The scores that you see at the bottom are the  
10 satisfaction scores for each of those audiences,  
11 so we're paying particular attention to the  
12 recreational fishermen and the commercial  
13 fishermen because they are our least happy  
14 audience with our current sites. The top tasks  
15 our audiences are coming in to do, find specific  
16 information about marine species, find  
17 publications, information about rules and  
18 regulations, checking news and so forth. So we  
19 took all these tasks into account, and then we're  
20 trying to figure out well how do we satisfy, we  
21 have so many audiences, how do we satisfy  
22 everyone? What's the logical and most effective

1 way to kind of address the content that we're  
2 posting to this new site?

3           So we've come up with some user  
4 profiles where our surfers are those audiences  
5 that are really just coming in and kind of  
6 scanning at a very high level, you know, on the  
7 top level pages. And so we're thinking about our  
8 website more like peeling back layers of the  
9 onion, so there's that top level, then you get to  
10 that middle level where our swimmers might be  
11 seeking something specific, like a permit, but  
12 they're going to come in and grab exactly what  
13 they want, and then they're going to leave. The  
14 divers are more our folks that are coming in and  
15 looking for information that they're going to  
16 analyze or manipulate. So it could be graduate  
17 students, government, scientists, et cetera.

18           So current status, what's new, how  
19 does it work, where are we at in our schedule.  
20 So three things to point out: we're shooting  
21 towards better user-centric content. It's really  
22 data driven; it's looking at that satisfaction

1 survey, but also looking at our Google analytics.  
2 So we're knowing that our users are coming in,  
3 and they want to get faster to information on  
4 species, on topics, on regions and top tasks like  
5 finding permits. Our organization structure is  
6 still there, though. We're not losing that,  
7 we're just putting that in its own bin. Higher  
8 quality content, we're really cleaning things  
9 out, removing that redundant content that I was  
10 talking about, and mobile-friendly. So what does  
11 mobile-friendly look like? This is a view of a  
12 desktop page towards a large tablet, and this is  
13 going down from a large tablet to a normal tablet  
14 to your phone.

15 How do users find content? 60 percent  
16 of our users, they're still coming in from a  
17 Google search engine or another search engine.  
18 They're coming in for something specific, and  
19 they're going into that one page and then they  
20 are probably leaving or maybe surfing around a  
21 little bit more. So we put a prominent search  
22 box at the top of every page, kind of like when

1 you go shopping at Amazon, there's that search  
2 box; you're going to enter in that search box  
3 exactly what you want to pull up the results.  
4 There's robust tagging, so we're -- it's this  
5 create once, publish everywhere concept where  
6 when we enter in new content to the site, we're  
7 tagging it by, you know, what's the name of the  
8 species, what's the region that it lives in,  
9 what's the topic it's related to, and then it  
10 shows up in multiple places throughout the site  
11 so that we're not creating redundant content  
12 across the website. And then we've also applied  
13 -- used that metadata for filters so that if  
14 you're going in to search for permits, you can  
15 also kind of filter it to get to the specific  
16 permits that you need.

17           It's an ongoing, iterative process;  
18 there's still a lot of work to be done. A lot of  
19 the priority content is in from the headquarters  
20 level, we're linking back to existing sites for  
21 the time being, we're fixing bugs, addressing  
22 feedback, we'll continue to add enhancements

1 probably over the next year. It's definitely a -  
2 - it takes time to add all the enhancements and  
3 we've been working on building the new content  
4 management system for the past year, and there's  
5 still a lot more to do. And we'll continue to do  
6 more user testing; we'll probably do more user  
7 testing, especially with fishermen in January and  
8 February. We did initial user testing with them  
9 last year before we even got started, and we'll  
10 do some more.

11 So the schedule is moving all of our  
12 headquarter sites in this year, we're going to  
13 wrap that up by mid-January and turn off the old  
14 site. The old site is [www.nmfs.noaa.gov](http://www.nmfs.noaa.gov), and  
15 that site is still up and running so that users  
16 can still get to content that we haven't migrated  
17 over yet. Our other sites that are a part of  
18 this Phase I and the regions are the Alaska  
19 Science Center, the Southeast region, the  
20 Southeast Science Center; those sites, their old  
21 sites will continue to be up for a while longer;  
22 they're on a slightly slower schedule. And then

1 for 2018, we're working with the Alaska regional  
2 office, Pacific regional office and science  
3 center, and then the West Coast region. In 2019,  
4 the remaining offices, Greater Atlantic,  
5 Northeast Science Center, Northwest Science  
6 Center, Southwest Science Center will be moving  
7 on board.

8           So now, I want to go to the website  
9 and actually show you guys -- demonstrate this a  
10 little bit. Okay. And so actually, you know  
11 what? I want to just kind of -- if you haven't  
12 been to the old site lately, let me just kind of  
13 show the difference here. So this is the current  
14 national site; we've put up a banner here to let  
15 our users know that we're not -- we're still  
16 adding a little bit of content here, priority  
17 content, but as announcements come out we know  
18 users might be looking for on this site, but for  
19 the most part we're trying to really focus on the  
20 new site. So this is a tablet view -- this isn't  
21 even a desktop view -- of our new national home  
22 page, and so you would actually see, on the

1 desktop view you would see Resources, Services  
2 and About Us information. So you can see we're  
3 focusing on finding species here across the top,  
4 and we've really got our agency mission areas  
5 identified right here front and center. Fishing  
6 and seafood, we want our fishermen to be able to  
7 come in if they're a commercial fishing audience  
8 or the recreational fishing audience, if they're  
9 coming in to seek permits or specific rules and  
10 regulations. We want to make sure that they're  
11 able to see that right up front. Also protecting  
12 marine life, our other -- our second mission  
13 area, and then we've kind of also wanted to  
14 address we do everything kind of on an ecosystem-  
15 based approach, so we're prioritizing our habitat  
16 and ecosystem information as well.

17           And if you're coming in from a region,  
18 you can come in and specifically find key -- this  
19 is the survey I was talking about, and we welcome  
20 your feedback. If this pops up and you want to  
21 give us feedback, we welcome you to kind of get  
22 started and give us some feedback in that way.

1 It's a random survey that shows up. So this is  
2 top tasks for the Alaska Regional Offices; right  
3 now you can see we're linking back to their  
4 existing websites. Any latest news from those  
5 regions, as new rules are coming out, we'll be  
6 able to plug those into the new website, and that  
7 will auto-populate on a variety of different  
8 pages. And the information, primarily what's  
9 coming out of our regional offices under the  
10 Conservation and Management, Science and science  
11 blogs, so you all can have your own time to kind  
12 of explore these areas more, but I do want to  
13 show you a little bit about this Rules and  
14 Regulations area.

15 Right now, they're linking back to the  
16 current sites, but eventually what we're going to  
17 see is fisheries bulletins; some of our regions  
18 have fishery bulletins coming out. Rulemaking for  
19 each of the regions, and then other resources, so  
20 that's kind of an area that we want to test with  
21 our fishermen and make sure that they're able to  
22 find what they are seeking, and then also

1 Permits, another area fishermen will be  
2 interested in. And this is just -- right now,  
3 it's just linking back again to the current sites  
4 and eventually, we'll have a way for our  
5 fishermen to get to specific types of permits as  
6 well. And then for our folks that are interested  
7 in the way our organization is structured, that's  
8 where they come into About NOAA Fisheries, or  
9 they can come in and see news announcements,  
10 information about our partners, I think we have  
11 actually a page here dedicated for MAFAC, so this  
12 is just kind of starting content for right now,  
13 and we'll work on populating that a bit more as  
14 we go. If we click into About Us, Who We Are,  
15 for folks that are interested in our organization  
16 kind of org chart, this is how it's set up for  
17 right now. So that's the gist of it; let me take  
18 some questions from you all. Harlon?

19 MEMBER PEARCE: Thanks for the  
20 presentation. One of the things I noticed, one  
21 of the toughest jobs that we have at the council  
22 level is making the user groups understand what's

1 really going on, and this is an important website  
2 for that. I noticed in your situation where you  
3 had percentages of different user groups that  
4 were doing the website were very lacking on the  
5 commercial fishery side; I think it was five  
6 percent. Anything we can do to pick that up  
7 would be very important so they would better  
8 understand what we are trying to do, and I'm not  
9 exactly sure how you would do that. The  
10 recreational sector is very well represented,  
11 that was great, I like to see that. There's also  
12 something else I think we're missing, is that  
13 it's just not about the recreational fishermen,  
14 it's not just about the commercial fishermen,  
15 it's about the user groups that are involved, the  
16 end user such as Mr. Berkowitz and his  
17 restaurants; they need to have more ability to  
18 understand what's really going on that affects  
19 their livelihood and affects this country, and I  
20 didn't see that; maybe I missed it in there. But  
21 I think some focus on trying to bring the  
22 commercial industry into the fold and help

1 educate the rest of the country that we're  
2 responsive to as fishermen to understand what's  
3 really going on in this industry and how they can  
4 help or how they can better understand what's  
5 happening and do that, but particularly the  
6 commercial fishing group needs to be more  
7 involved.

8 MS. FERRO: Right, and we are trying  
9 to reach out; we've, you know, through our agency  
10 contacts reach out to the commercial fishing  
11 audience and also the recreational fishing  
12 audience to get that level of feedback, but all  
13 audiences, we're looking for that feedback and  
14 we're catching that when they're responding  
15 through the ForeSee survey, that's kind of the  
16 best way that we know at this moment to kind of  
17 get that level of feedback. But to your point  
18 about like educating our audiences about our  
19 different areas, so we do have -- it's more  
20 topic-based now, so you can come in and kind of  
21 learn what we're doing for commercial fishing and  
22 see about the status of fisheries and find the

1 economic reports, the status of U.S. fish stocks,  
2 stock status updates, et cetera. So it is very  
3 much more topic-based for our audiences to come  
4 in and explore that way.

5 MEMBER BONNEY: So everybody has a  
6 different use for the websites, and your list of  
7 the different regions and how you're going to  
8 move them out of their present platforms over  
9 time, it gives me some pause because I probably  
10 use the website at least two or three times a  
11 week, and it's more industry use, educational  
12 where we do reports to kind of distill what's out  
13 there, and I get concerned about the fact that  
14 you might get so broad that you've lost the --  
15 because every region and every area is really  
16 siloed, and so if you get morassed into this big  
17 overarching website, you may not be able to  
18 really focus on what's important to the Pacific  
19 Coast, or what's important to Alaska, or what's  
20 important to the Gulf of Mexico. And so I don't  
21 know how you build a hierarchy that keeps that  
22 silo, but yet funnels everybody into the broader

1 topics. So -- and I'm old, I'll admit that, so I  
2 don't like change, I never want to update my  
3 software because there's something bad in there,  
4 but -- so I guess I just would caution to not  
5 move too quickly and to try to keep the silo  
6 structure but yet the broad overview, too.

7 MS. FERRO: I appreciate that, yes.

8 MEMBER BONNEY: And I've done the  
9 survey already.

10 MS. FERRO: Thank you, appreciate it.

11 MEMBER OKONIEWSKI: Likewise, I use  
12 the Alaska website virtually every day for  
13 landings data, and it's exceptional for halibut  
14 and sablefish, and it helps us in marketing and  
15 other stuff, or sales anyway. So I mean if that  
16 were to change, it would upset the way we do our  
17 business literally. But I guess the other point  
18 I'd like to make is that I would say that would  
19 be a model for me as far as landings data goes,  
20 or current landings data, and in some cases  
21 there's other organizations that are collecting  
22 the data such as PacFIN, but this -- I think this

1 landings data in year-to-date and real time or as  
2 close to it as possible is more important than  
3 many people might think. And it's great to see  
4 all the accomplishments that NOAA is doing, but  
5 for some of us that have jobs to do that are  
6 somewhat reliant -- are reliant on data, good  
7 data and current data, just knowing how to find  
8 that and tease it out is very important to us.  
9 And that's not just for me, but a number of  
10 people in our organization. PacFIN does a  
11 wonderful job, but it's a little harder for me to  
12 get through it, and some of their stuff I think  
13 is pretty current and maybe I just don't know how  
14 to work it yet, but if there's also mention of  
15 other sites that are carrying similar data about  
16 fisheries landings, especially federal fisheries,  
17 that I think is important to us as industry.  
18 Thank you.

19 MS. FERRO: Yes, our intent would be  
20 not to lose any of that critical information that  
21 you all use on a daily basis, and so we're  
22 working with the folks in each of the regional

1 offices to kind of cull that out and make sure it  
2 all gets transferred or migrated over into the  
3 new site, and that you could be able to find it  
4 in different ways, because one person might come  
5 into it looking through the lens of commercial  
6 fishing as a topic, but others might come in I'm  
7 going straight to Alaska, I want to find my  
8 landings data on that landing or that page. So  
9 I'm trying to think about it multiple ways.

10 MEMBER GILL: Thank you. I guess my  
11 comment is pretty simple. I think this website  
12 with my brief introduction to it is light years  
13 ahead of the old ones, so you're doing an  
14 excellent job. It's going to take a learning  
15 curve; Columbus, for example, had to help me find  
16 the MAFAC page this morning, but beyond that, it  
17 looks a whole lot better than the old one, so  
18 well done.

19 MS. FERRO: Thank you.

20 MS. LUKENS: Any other questions or  
21 comments?

22 CHAIR BEIDEMAN: Terri Beideman. I

1 refer to the MAFAC website, and often times go  
2 back into the transcripts of the various meetings  
3 from the past to see, especially when I first  
4 joined. Is that going to be archived somewhere  
5 or is that going to be lost? Because I know it's  
6 a little deep dive, but I still want to be able  
7 to, you know, I don't want to have that lost, so  
8 that's just my initial remark.

9 MS. FERRO: Right, and I think Heidi  
10 and Adele have been helping us figure out like  
11 which -- the content that needs migrating over  
12 for MAFAC.

13 MS. LUKENS: Yes, this is Jennifer.  
14 There are requirements underneath the FACA Act  
15 that -- of what is required to put out there.  
16 There's also a lot of work that's involved that  
17 Rebecca didn't really get into and mention in  
18 terms of migrating content over from the existing  
19 website to the new site; that has to be 508  
20 compliant, which is a term which I'm not going to  
21 get into the details of, but that does take quite  
22 a bit of time to make a document that is

1 accessible to people with disabilities and  
2 handicaps, so it takes a lot of time to migrate  
3 that content over. So it's going to be a slow  
4 process, and we're going to put as much content  
5 as we can on the new website. So fear not.

6 Heidi, do you want to add something to what I  
7 just said?

8 MS. LOVETT: Yes, so we always have  
9 access, we might have a message that if somebody  
10 is looking for something that's really old or for  
11 transcripts in particular, they might have to  
12 contact the office to receive it, but we can also  
13 use a Google site to keep certain materials that  
14 are used in reference because of the work you're  
15 doing, you know, to keep it more handy and  
16 available to the members, and everything is --  
17 just will always be accessible, it's just not  
18 necessarily always at the fingertips for the  
19 older material right on the website.

20 MEMBER BONNEY: So just one other  
21 thought was I don't know how you bring in the  
22 people that are maintaining all the sites now

1 into the conversation about how to structure  
2 things on a more global. So like the Alaska  
3 region, or Alaska Science Center, so you must  
4 have a huge committee I'm hoping, because  
5 everybody probably has an opinion about how this  
6 should look.

7 MS. FERRO: Yes, we do. Our web  
8 council has communications and IT representatives  
9 from every office, regional office and science  
10 center and headquarters program. As well, we  
11 pool together our experts from every area of  
12 content that we're working on, so permits  
13 experts, our regulatory experts, our species  
14 experts, they're all coming together, they're  
15 reviewing everything, they're providing input,  
16 they're representing our audiences because they  
17 work directly with those audiences. And I do  
18 think that you all, if you have the time and  
19 interest, we probably would love to have you help  
20 us provide some feedback, do some of the user  
21 testing, too, since you're using it on a daily  
22 basis.

1 CHAIR BEIDEMAN: Well thank you. Any  
2 other questions? Oh, one more.

3 MEMBER GILL: Madam Chair, could I  
4 broaden the subject to communications in general?  
5 Do we have time for that?

6 CHAIR BEIDEMAN: Yes, we do have time  
7 for that.

8 MEMBER GILL: So my question is, is  
9 this meeting available to folks outside the DC  
10 area?

11 MS. LUKENS: The entire meeting to the  
12 public, it's open, it's --- the Federal Register,  
13 it's noticed in the Federal Register for the  
14 public to come and attend. Sometimes there are  
15 meetings that MAFAC has that are teleconference  
16 calls that are made available for folks to be  
17 able to call into; this meeting itself, we have  
18 several members who are unable to physically be  
19 here that we've given them the option to be able  
20 to come in via teleconference, but in general,  
21 all of our meetings have not been live streamed  
22 for the entirety of the meeting. That's why ---

1 one of the reasons why we do have a court  
2 reporter to be able to --- for folks to go back  
3 and look at that material afterwards if they  
4 want. So is there --- tell me what you're  
5 getting to with that question.

6 MEMBER GILL: So, Harlon's in New  
7 Orleans --- no, I'm sorry. Harlon's brother is  
8 in New Orleans and would like to participate or  
9 at least listen to the meeting; can he do it?

10 MS. LUKENS: Well, not at this meeting  
11 today, but that's one of the technologies that  
12 we're looking at is to be able to save money and  
13 to be able to get out to a greater audience of  
14 people to be able to listen to what's going on.  
15 So no, not for this meeting today, but that's one  
16 of the things that we've been looking into is can  
17 we live stream these meetings, because they are  
18 open to the public to listen to. For them to  
19 participate in, we do have one dedicated period  
20 of time for public comment, so it would be listen  
21 only mode if we did that, except for the public  
22 comment.

1                   MEMBER GILL:  So you're looking into  
2                   GoToMeeting or WebEx or one of those kind of  
3                   venues like the councils do in the near future,  
4                   is that what I'm hearing?

5                   MS. LUKENS:  That's one of the things  
6                   that we've thought about and talked about; we  
7                   haven't had a tremendous amount of interest,  
8                   quite frankly.  I mean, I don't know if Heidi can  
9                   confirm that more, she's the one who deals with  
10                  this on a day-to-day basis, but Heidi, I'll let  
11                  you speak to it.

12                  MS. LOVETT:  So we have interest  
13                  occasionally in certain sections of our meeting,  
14                  and today is one example.  Both our guest  
15                  speakers and some people from other agencies are  
16                  going to be listening in to the Columbia Basin  
17                  Partnership discussion, for instance, the task  
18                  force discussion.  So as --- when requests come  
19                  in, we do try to make it available.  Usually if  
20                  we open up the lines completely, more often than  
21                  not there's no one there.  So it's a balance and  
22                  a tradeoff; it's just we haven't had that level

1 of interest, but when the interest arises, we  
2 address it.

3 MEMBER GILL: Well my comment is at  
4 least the Gulf Council and I think most councils  
5 stream all their stuff. SSCs, APs, council  
6 meetings, et cetera. And I think what you're  
7 addressing here is a chicken and egg problem. My  
8 suspicion is when the councils first started live  
9 streaming their stuff, Gulf Council for example  
10 uses GoToMeeting, they probably had a virtual  
11 zero audience. At the moment, I would guess it's  
12 rather strong, but if you don't know you can do  
13 it, you don't try. So my suggestion is that I  
14 think it would be a big help for MAFAC ---  
15 because not many folks know about MAFAC --- is to  
16 initiate a GoToMeeting thing where the  
17 presentations are all available and they can come  
18 online and look at them in real time, and get  
19 that word out. I think you would see greater  
20 participation, greater involvement, certainly  
21 greater communication. So my recommendation is  
22 that something like that is implemented for the

1 next meeting.

2 MS. LUKENS: Thank you Bob, I  
3 appreciate that comment, and then I'm looking at  
4 Heidi and that is something that we are going to  
5 look into after this meeting. Does anyone have  
6 any other thoughts on that or want to add what  
7 Bob said? Okay, with that I think we'll close  
8 out that portion. Thank you so much, Rebecca,  
9 she really has put a lot of time and effort into  
10 that, and I really appreciate her coming to walk  
11 you all through that. And next we have Laurel  
12 Bryant --- oh Randy, I'm sorry. Did you have  
13 something you wanted to say, Randy, before I go -  
14 --

15 MEMBER FISHER: Well, yeah. I think  
16 that what's important is what Julie and Mike were  
17 saying, because if you really look at what goes  
18 on, I mean each of the councils do their own  
19 thing, they have their own websites; we have our  
20 own website where we carry a lot of information  
21 in terms of catch levels, and what this smells  
22 like to me is centralizing everything under one

1 system, and I don't know who's going to keep that  
2 thing updated all the time. It sounds like to me  
3 you're going to require the councils to update  
4 all of their information on their own websites,  
5 and then you'll pick that up or something. So  
6 what they're saying is important, and I hope that  
7 you don't just say well, we're all going to do it  
8 the same way because that's the way it is.

9 MS. FERRO: So we are --- every single  
10 office is still managing and owning their own  
11 content, so it's still handled at the local  
12 level, and they're still able to prioritize that  
13 content and address unique needs, too. So like I  
14 said, we're trying to address a lot of needs for  
15 a lot of different audiences, and we're not  
16 trying to take any of that away.

17 MS. LUKENS: Thank you, Rebecca. Now  
18 we have Laurel Bryant, who's up at the front of  
19 the room; she's our Chief of External Affairs for  
20 those of you who don't know her, but I think  
21 pretty much everyone knows Laurel around these  
22 parts if you're familiar with NOAA Fisheries.

1 And she's going to give us a bit of an update on  
2 sustainable seafood outreach initiatives and  
3 what's going on with FishWatch. So I will turn  
4 it over to you, Laurel.

5 MS. BRYANT: Thanks Jen, and yeah,  
6 it's nice to see a lot of familiar faces, a lot  
7 of new folks, so I'm looking forward --- I'm  
8 going to be around today and join you in the  
9 evening's festivities, and so I'm looking forward  
10 to conversations. For those of you who don't  
11 know me and for those that even do, just to kind  
12 of give you some updates on where we are and kind  
13 of who I am and where I fit into this. So as Jen  
14 said, I do external affairs, and what does that  
15 mean for you? I do a lot of the public out-facing  
16 of the agency, putting together those narratives,  
17 putting together those campaigns, putting  
18 together some of those outreach tools. So  
19 FishNews, which goes out weekly, if you are not  
20 subscribed --- and new members I certainly  
21 encourage you to do so --- is a weekly flagship  
22 newsletter that we pull together each week and

1 push that out on key information to our  
2 stakeholders meetings, such as MAFAC nominations  
3 project, processes for MAFAC, et cetera.

4 Another thing that I managed and  
5 launched was FishWatch, which we've got up right  
6 now; this is the third iteration of FishWatch. I  
7 won't go into FishWatch too much, but it is a  
8 platform that we can continue --- that we are  
9 continuing to develop, and that's something that  
10 I want to focus on today with you. The other  
11 part of my portfolio is really putting together  
12 the agency's face on sustainable seafood. NOAA  
13 Fisheries has been engaged a lot with sustainable  
14 seafood; what they have not done is put together  
15 those talking points and those narrative points  
16 into a landscape that really resonates with  
17 people, that really allows the mission of NOAA  
18 Fisheries to have conversation at the dinner  
19 table. And in 2010, we really started to take a  
20 look at what the agency was doing, I don't know  
21 if some of you remember the Turning the Corner on  
22 Ending Overfishing that we kicked off in 2010,

1 and we continue to ramp that up and have for the  
2 last seven years.

3 Last year was the MSA's 40th  
4 anniversary, and I have to say I think the  
5 agency, along with its partnership, along with  
6 MAFAC, many of you here at this table, even the  
7 conservation organizations, last year really  
8 culminated into the agency and the work of the  
9 MSA getting recognized as a global leader in  
10 sustainable fisheries management, what that means  
11 to seafood and where the country is in terms of  
12 its seafood supply, how we are influencing  
13 international conversations, what we're doing for  
14 our own seafood supply in terms of the new  
15 seafood import monitoring program that will go  
16 into effect January 1. So a lot of pieces,  
17 including what this group has been involved with  
18 for a very long time, aquaculture. We're working  
19 with a lot of different partnerships, a lot of  
20 outreach efforts. Paul and Michael will go into  
21 that in more depth and detail, but in terms of  
22 really working with those outside groups to start

1 getting the social license and the political will  
2 to move forward with this critical component of  
3 the sustainable seafood supply for the long term,  
4 and really the role that the U.S. and NOAA  
5 Fisheries has played in that conversation. So I  
6 wanted to just kind of give you a little bit of  
7 that base on what I do, what my job is in  
8 facilitating this, pulling these different  
9 offices together from international affairs,  
10 seafood inspection, aquaculture, sustainable  
11 fisheries, and communications.

12 So why am I here today? To start a  
13 conversation. As Chris mentioned in his opening  
14 remarks, we're really at the point, MSA has been  
15 very successful in terms of really establishing  
16 sustainable fisheries here in the United States.  
17 We are actively moving forward with the other end  
18 of that supply in terms of aquaculture, and  
19 really starting to talk about how do we support  
20 expanding U.S. seafood production, not getting  
21 into a farmed versus fished, not getting into a  
22 gill net versus a trawl, not getting into a state

1 versus a fed, but getting into U.S.-produced  
2 seafood. And how can FishWatch perhaps be  
3 utilized and expanded as more of an effective  
4 tool for that conversation and that platform to  
5 be utilized in a way that makes sense right down  
6 to the consumer.

7 This is a science-based agency, we are  
8 not consumer-facing, but we have over the last  
9 seven years developed a number of partnerships  
10 that are consumer-facing. We currently are on  
11 the advisory committee for the Food Marketing  
12 Institute, which represents 95 percent of the  
13 retailers in the United States. We're on the  
14 advisory committee of the Seafood Partnership.  
15 We work with Conservation Alliance when we can,  
16 Conservation Alliance for Seafood Solutions. We  
17 certainly work with a number of you in the  
18 seafood industry, and we're trying to get better  
19 and better at breaking into the culinary  
20 industry, so Roger will be talking after this.  
21 So we're really looking at this year, and we have  
22 not started it yet so I guess I'm starting a

1 conversation with you, opening it up for  
2 discussion and getting your ideas.

3 We want to start looking at FishWatch  
4 in terms of putting together perhaps a public  
5 education campaign. We don't know what that  
6 looks like yet; we have just finished upping and  
7 extending the patent on the FishWatch text, on  
8 the FishWatch trademark, and we're now in the  
9 process of working with general counsel at the  
10 Department of Commerce to make certain that we  
11 can expand its use. Where can it be used, how  
12 can it appropriately be used, who can it be used  
13 by. The purpose is to really then look at is  
14 there a public education campaign platform that  
15 can really support U.S.-produced seafood, and not  
16 necessarily go down the rabbit hole of being a  
17 certified or a verification process; that's not  
18 something that we have authority for at this  
19 point, it would take an awful lot of resources at  
20 the back end. Would it really be needed, another  
21 label, when things are so confusing?

22 Rather, really looking at a higher

1 level. Think of something like only you, you  
2 know, give a hoot, don't pollute. Only you can  
3 prevent forest fires. Buy American. It doesn't  
4 require a labeling thing, it's not that. It's  
5 much more of a public education campaign that  
6 drives consumers and people to a platform that  
7 then they can learn more about the narratives,  
8 what they can do, what they can find out. And  
9 we're hoping that we can start expanding  
10 FishWatch into that kind of platform. We need to  
11 work with retailers; we have not begun that work  
12 yet in terms of what would they find useful, is  
13 it something that they would find useful on their  
14 web pages? If you're a retailer, is it something  
15 that you would find useful for marketing U.S.  
16 harvested or farmed seafood? A lot of questions,  
17 and we've put together an internal team that I'm  
18 heading up that we're going to start looking at  
19 those options, working with general counsel,  
20 looking at other campaigns that have occurred,  
21 and then bringing those options forward to our  
22 leadership for them to consider.

1           So I wanted to kind of put that out  
2           there; I am available, I will certainly be here  
3           today, and I assume -- and would like to have  
4           those conversations that how can we get the  
5           guidance and advice and use the expertise that  
6           you all represent in this room to help guide us  
7           in that conversation and perhaps make a product  
8           or a platform that would be useful. And before I  
9           stop, I also want to mention that one of the  
10          things that we've done in the past in terms of  
11          really pushing the narrative of U.S.-harvested  
12          seafood is we have made letters available to many  
13          retailers and seafood distributors that are  
14          dealing with trade situations, and can you  
15          confirm that this fishery is sustainable, and I  
16          need a letter. We've done those, but we've never  
17          marketed that. We kind of look at this as being  
18          a platform, that that's one of the things that  
19          this program could offer. So I wanted to throw  
20          that out there, because I know that that's a  
21          conversation that Chris has had more recently and  
22          looking at that and how we can do that better.

1 So with that, I'm going to hush up, I'm happy to  
2 take questions. Turn it over to you.

3 MS. LUKENS: I think Harlon was first.

4 MEMBER PEARCE: First off, I want to  
5 applaud all the hard work you've done on this,  
6 Laurel. I know you've worked really hard on  
7 where you're going, and I really appreciate the  
8 fact that you're reaching out to the FMI groups  
9 and the retailers and people like that. I think  
10 most people don't realize what's going on, don't  
11 realize that they have the ability to make change  
12 as well. And I think the more we get to the  
13 consumer, the more we get to the people that  
14 we're responsible to, the better off we're going  
15 to be, and so they don't just wake up one day and  
16 say whoa, just what happened; instead, let's be  
17 involved and try to solve the problems and keep  
18 them involved in what's going on. So I think it  
19 goes past all the people around this table, that  
20 you need to go into the FMIs, the national  
21 restaurants, so these kind of guys have to be  
22 involved, and we've sort seen that in the Gulf at

1     some level, and it's made a difference. So I  
2     really applaud you in everything you're doing, I  
3     think just education of us is one thing, but the  
4     general public needs to understand what  
5     aquaculture will do for it, what fisheries,  
6     what's happening in fisheries and how they can  
7     help make it better for everyone.

8             MS. BRYANT: I think part of our  
9     challenge too in that, Harlon is making certain  
10    that people realize again, we're talking U.S.-  
11    produced seafood. These are not competitors;  
12    they supplement each other. This is a protein  
13    pie that can actually grow, and so there's a lot  
14    of nuance that we hope this platform could  
15    address.

16            MS. LUKENS: Rai.

17            MEMBER ESPINOZA: Thank you. Same as  
18    Harlon, this is I think just taking a lot of the  
19    work that folks have done of promoting local,  
20    from boat to fork, and I think one of the things  
21    that really needs to be highlighted with this for  
22    U.S. production is that usually, you think of

1 aquaculture and fisherman, you see the boat, you  
2 see the net. But something that folks really --  
3 and this is something that we started working in  
4 Puerto Rico -- folks don't really see seafood as  
5 coming from a person. They don't see it that  
6 it's something that provides support to  
7 communities, it's something that they see as the  
8 industry, they see the boat, they see the nets,  
9 they see the pens. They don't really see the  
10 fisherman or the fisherwoman. They don't really  
11 -- so making that connection really, you know,  
12 supporting American-produced really supports  
13 American people. So it's something that it's  
14 taking the concept of, you know, from boat to  
15 fork; it's local, it's sustainable. It's also  
16 something that's economically responsible to  
17 support your own economy. So it's something  
18 that's making that -- putting a face to the  
19 product is something that's also -- helps the  
20 public connect to, and I think this is really  
21 great what you guys are doing.

22 MS. BRYANT: I really appreciate those

1        comments. I think one of the things that we're  
2        kind of excited about -- Paul and Michael may  
3        mention this later -- one of the groups that  
4        we've been working with the last six months or so  
5        is the National Aquarium. The National Aquarium  
6        has been working with a professional marketing  
7        group, and they're -- now we are kicking off the  
8        pilot project with all of Wegmans over the next  
9        six months, and it is an education campaign to  
10       meet the fisherman, meet the farmer, and it's  
11       much more focused on really helping to create  
12       that social license for aquaculture as well as  
13       the political will. But what gets wrapped up in  
14       that of course is seafood, and really starting  
15       those conversations at the seafood counter. We  
16       hope then in June hopefully, during Capitol Hill  
17       Ocean Week and the NOAA Fish Fry, that that  
18       campaign will then get launched nationally, and  
19       working with the Food Marketing Institute and  
20       getting it out there to other retailers. So I  
21       really appreciate those remarks and we'll see how  
22       that goes.

1 CHAIR BEIDEMAN: Roger.

2 MEMBER BERKOWITZ: Well, I really  
3 appreciate your efforts in this regard. I  
4 remember being on a panel at the Culinary  
5 Institute, and there was a fellow there from the  
6 Chef's Collaborative, and he was telling people  
7 not to eat cod or haddock from the North  
8 Atlantic. And I said how can you say that? And  
9 he whipped out this pamphlet from I think  
10 Monterey -- yes, that's it. It says here not to  
11 eat it. And I said but NOAA has said it's fine  
12 to eat, I don't understand. So I think that NOAA  
13 as the overreaching authority on what's  
14 sustainable, I may not agree necessarily with the  
15 quotas, but the fact that it is still being  
16 caught and available, regardless of the catch  
17 limit, I think that that's the word that has to  
18 get out there, and that will really damper down  
19 the -- or tamper down the propaganda that's  
20 coming out of Monterey.

21 MS. BRYANT: I -- wow. Thank you for  
22 the segue. It's -- that has always been a real

1 problem for us, and we've actually had  
2 conversations directly with Monterey Bay, and one  
3 of the problems is the minute that over-fishing  
4 is determined in a fishery, they go red, and they  
5 will not change it from red until after the next  
6 survey. Our argument has been well, but you have  
7 a dynamic management process that immediately  
8 responds to over-fishing, and within the next  
9 council meeting makes those adjustments, and it  
10 stops. That's the strength of NSA, that's how  
11 you prevent a stock from getting over-fished.  
12 And that's not a story that you're telling in  
13 red, yellow, green. And you're certainly not  
14 rewarding fishermen who are abiding by very  
15 robust precautionary rules in the marketplace.  
16 So we really have a competitor, we really have a  
17 need to be able to tell that story. We've tried  
18 to on FishWatch, we certainly do it one-on-one,  
19 but that's not the same as reaching a consumer,  
20 and what we're trying to figure out now is how do  
21 we take these complex things and put together  
22 something more simplified that allows a retailer

1 to say, you know, support U.S.-produced seafood,  
2 and get that larger conversation. And when  
3 people want to dive down in those weeds, or they  
4 have those conversations that we have some  
5 training behind it, and that we can talk to those  
6 fish mongers, and they have answers to those  
7 questions. So we're only at the beginning of  
8 this journey, and I don't have anything to offer,  
9 but I am looking forward to the conversations.

10 CHAIR BEIDEMAN: Dave?

11 MEMBER DONALDSON: Laurel, I  
12 appreciate all the work you've been doing on  
13 this, and there are a couple of things. Rai, I  
14 agree that the connection between the fisherman  
15 and the product is critical. We -- through the --  
16 - because of the BP oil spill, the commission got  
17 some money and we instituted a traceability  
18 program, and one of the things was you had QR  
19 codes where you could scan it and it would show  
20 the guy who caught your shrimp or the oysters and  
21 whatnot, and that was very successful.  
22 Unfortunately, funding ran out and it's not -- it

1 has not continued, but I think that's a critical  
2 component is tying those in. And addressing  
3 Roger's issue with Monterey Bay, we've -- they've  
4 actually asked us to review some of their ---

5 MS. BRYANT: Recommendations?

6 MEMBER DONALDSON: --- assessments I  
7 guess we'll call them, and have been frustrated  
8 because our staff has spent quite a bit of time  
9 reviewing it, and specifically for oysters, and  
10 they don't change it. But I think providing  
11 something through FishWatch or an alternative to  
12 the green, yellow and red is something that we  
13 need to get out to the consumer so they're not --  
14 you don't hear these things well don't eat this  
15 fish or that fish because it's not sustainable.  
16 So -- and you're right, you're just beginning,  
17 but I support what you guys are doing and if  
18 there's something the commission can do to help  
19 you guys, you know, we're here for you.

20 MS. BRYANT: Be careful what you wish  
21 for, Dave. No, just kidding.

22 MS. LUKENS: Mike?

1                   MEMBER OKONIEWSKI: Yes, you don't  
2 know how much this strikes home, Laurel, and I'd  
3 like to thank you. On the west coast, we're  
4 working hard since we've got a large amount of  
5 fish that's not being harvested, and we've been  
6 off the rockfish market basically for 16 years  
7 and attempting to get back into it. There's so  
8 much misinformation out there, we've actually  
9 formed a group called Positively Groundfish,  
10 which I'd like to talk to you about in person  
11 later, but we could use a lot of information and  
12 maybe you might be interested in what we're  
13 doing. It's a collaborative effort, not just  
14 processors. It's fishermen, processors, Oregon  
15 Department of Agriculture, Oregon State  
16 University, Washington Department of Fish and  
17 Wildlife, EDF and a few others.

18                   So -- but do we actually focus  
19 attention back onto our species that were --  
20 multiple species that were over-fished recently  
21 and much of the common information out there is  
22 that they still need protection beyond fishing.

1 So it's an uphill climb for sure; our primary  
2 value equation is fresh; it's one thing we can do  
3 from the west coast because we've got access to  
4 most of the traffic lanes that will get us into  
5 the fresh markets, but what we're finding out is  
6 all the real estate is occupied by imports. And  
7 like I say, it's an uphill battle.

8 The one thing we hear over and over  
9 when we approach the major chains --- I'll leave  
10 unnamed, but they're big ones back on the east  
11 coast too is that how do we --- they want to know  
12 more about the sustainability aspects. And  
13 somebody said it before, you're the ultimate  
14 authority. If we can dispel some of the  
15 misinformation out there coming from a neutral  
16 source, that would be a great coup to accomplish.  
17 So there's things we can do, but we're literally  
18 talking millions and millions of dollars of  
19 opportunity that's before us if we can just tap  
20 into it and do the work involved. I think it's  
21 about a four to five year project, but --- and  
22 I'm sure there's other ones around the country,

1 because I've been reading about a number of  
2 fisheries that are off the, you know, they're  
3 rebuilt and ready to go, but we have a lot to  
4 accomplish yet. So thank you.

5 MS. BRYANT: I appreciate that. I do  
6 want to say just in response to that, Mike, that  
7 one of the things that we're looking at in terms  
8 of this, one of the members on my team, it's how  
9 can we do this so that there is a partnership and  
10 it allows recognition of those external efforts,  
11 or certainly those external efforts that we're a  
12 part of. So you know, something that again can  
13 drive people to find out more, because I realize  
14 so many of our fisheries that are now rebuilt,  
15 they've lost their place at the marketing table.  
16 How can we get them back in? And that's got to  
17 be one of the objectives of this campaign.  
18 Harlon?

19 MEMBER PEARCE: Yeah, I want to echo  
20 Mike's comments, because I think it's very  
21 important to some of the discussions we're going  
22 to have here at this meeting, and I think -- I

1 never thought about it on your end, but I think  
2 your end has to help us as much as the  
3 councilmatic system has to help us change things  
4 in a better way for this country. And it is like  
5 when something is not there now, it's like it's  
6 out of sight, out of mind, and oh, we're never  
7 going to see it again, we can't do it. But  
8 that's not the case. We're working very hard to  
9 make sure that that's not what happens, that we  
10 grow these fisheries so that we can have a  
11 country that produces again in different ways.  
12 And so it's very important that we look at this  
13 as a joint situation, not just for the council,  
14 but with every -- all the hard work you're doing,  
15 say this is where we are, these fish are ready to  
16 go and wake people up and make them think about  
17 it, and that's why this consumer is very  
18 important to make them understand what they're  
19 missing really.

20 MS. BRYANT: I think with seafood  
21 particularly, and the whole interest in getting  
22 local, buying American, buying domestic, I think

1 it doesn't have to be anti-import, and I think  
2 we've got to be very careful on that, but I think  
3 there's some trends that we can leverage.

4 Anybody else?

5 MEMBER OKONIEWSKI: One thing too, the  
6 fisherman aspect is, I think, very important,  
7 just telling the story. There's a culture there  
8 that goes back a long ways, and it's a heck of a  
9 heritage and it's a pretty romantic story  
10 actually to be able to spin out there, so that  
11 aspect I think should be front and center as  
12 well.

13 MS. BRYANT: Okay. I will -- I'll  
14 make a promise to this group through Jen and  
15 Heidi; there's an awful lot of things that are  
16 getting ready to hit, working with Aquarium of  
17 the Pacific, an op-ed series; working with SeaWeb  
18 and Seafood Solutions trying to get some videos  
19 done, testimonials, those kinds of things. So as  
20 these projects hit, as things hit, we'll push  
21 that out and just make you aware because you all  
22 have your own memberships. So I kind of look at

1 you guys also as part of the distribution  
2 network.

3 CHAIR BEIDEMAN: This is Terri, and --  
4 oh, Randy go ahead.

5 MEMBER FISHER: Is there a way that  
6 you can make it simple for waiters so they  
7 actually know what they're serving?

8 MS. BRYANT: You know, you are hitting  
9 on one of the -- so part of the -- I don't know  
10 that we would have the money; we'll have to see.  
11 But one of the things that was interesting in  
12 going through this process, we've advised on the  
13 Wegmans National Aquarium thing and it was  
14 fascinating. And so they brought in all their  
15 buyers, they brought in the leads of their fish  
16 sales folks at the counter top, and it was an  
17 effort to introduce them to here's the training  
18 materials, it's still all in draft and it's, you  
19 know, getting their "how is this working on the  
20 floor," they're using five flagships here in the  
21 mid-Atlantic from New England to the mid-Atlantic  
22 to test it out for the next six months. And part

1 of it was that what are the frequently asked  
2 questions, how do they have it and got it  
3 available behind the counter, and I think that's  
4 exactly what you're talking about. I think if we  
5 are going to be successful in this, the toughest  
6 part is going to be the marketing and  
7 distribution of it, and looking at those  
8 audiences. So Roger, we may be turning to you,  
9 and how do we get into the culinary world as  
10 well? I think I've got an inroad into the retail  
11 and the seafood mongers, but not so much the  
12 waiters. Great point, Randy. We'll talk.

13 CHAIR BEIDEMAN: Anyone else have any  
14 questions? I just have a comment. For myself  
15 personally, I've watched the evolution of the  
16 FishWatch, I've known you for quite a while, and  
17 my mantra has always been that we are managed the  
18 most sustainably here and unfortunately, it's not  
19 recognized by a lot of public, and we've had  
20 issues that have come up where there is third  
21 parties that have substantial financial interests  
22 in making it very difficult for consumers to know

1 what is what. But I try to tell them one at a  
2 time on an airplane if they unfortunately sit by  
3 me, you know, it's going to -- you know, they ask  
4 you what do you do, and then they're in deep  
5 trouble. Trying to tell them that we are not  
6 allowed to go fishing if we aren't fishing  
7 sustainably, that we have to recognize that U.S.  
8 and most of them have no idea.

9           And I think that's a message that  
10 you've been working toward trying to find a good  
11 way to put out; I think the story aspect with  
12 humans, you know, families, multi-generational  
13 some; unfortunately fewer and fewer all the time  
14 now. So I think that there is plenty of  
15 opportunity, I just think that it's really -- the  
16 United States is the gold standard. It's  
17 unfortunately my mantra; I'm going to have to  
18 change it to Bitcoin standard, but it is true.  
19 And I've dealt in international fisheries and  
20 noticed the inequality and the fact that, you  
21 know, and I recognize we need imports to have a  
22 steady supply of things, but I have to tell you

1 in light of some of the common new things to do  
2 with the Marine Mammal Protection Act and IUU,  
3 and I have to, you know, I'm unfortunately one of  
4 those that say what if. What would have happened  
5 if that had been enforced, that Marine Mammal  
6 Protection Act provisions had been enforced in  
7 1972, what would our market might look like?  
8 What would our seafood industry might look like?

9 MS. BRYANT: You mean in terms of  
10 imports?

11 CHAIR BEIDEMAN: Yes, and --

12 MS. BRYANT: It's coming true.

13 CHAIR BEIDEMAN: Yes, well I don't  
14 know, you know? I don't know. But anyway, we  
15 can have plenty of talk offline, but I appreciate  
16 your efforts more than you know. I know the  
17 fishermen do as well, it was a great help and as  
18 you continue this process, I know it will be very  
19 helpful because I believe that it's also  
20 important that consumers, whether they like to  
21 eat fish or not, are aware that our fishermen and  
22 our managers are doing everything the right way,

1 and that aquaculture is also a good opportunity  
2 if it's the United States, and we need to get  
3 that rolling; we're far behind. So anyway,  
4 that's my two cents. I'm going to let Cleveland,  
5 and then we're going to take a break. Oh, Donald  
6 -- Columbus, sorry.

7 MEMBER BROWN: I get called a lot of  
8 things.

9 CHAIR BEIDEMAN: You're a city in  
10 Ohio.

11 MEMBER BROWN: I really appreciate the  
12 good work that you're doing, and I think it's  
13 very important for us to maintain a sense of  
14 balance in how we continue to move ahead in this  
15 process. I buy the fish in my house, and there  
16 are three things that I consider when I go up to  
17 the fish monger. The first one is food safety,  
18 the second one is fish health, and the third one  
19 is sustainability. And unfortunately, when you  
20 go into the grocery store, and you see all these  
21 different signs about this, that and the other,  
22 the fish health and food safety issues are really

1 the last to be talked about. And I think it's  
2 very important that we continue to raise the bar  
3 and make sure that our imports are good and safe  
4 food, and that we welcome imports because we  
5 can't -- I can't fathom how we could produce  
6 enough fish in this country to sustain the demand  
7 in the foreseeable future. So I think we need to  
8 -- I'm a guy who likes blueberries in the winter,  
9 and so the whole local issue, buy local is great,  
10 but there are times when we don't have  
11 blueberries in the winter in North America; we  
12 have to go south of the equator for that. And  
13 that's a good thing because that means that we  
14 can send more of our stuff overseas, too.

15 MS. BRYANT: Good point. Thanks,  
16 Columbus. It is Bob?

17 MEMBER BEAL: Okay, thank you. Just  
18 real quickly, back to the notion of traceability  
19 and telling the story of the individual fisherman  
20 and how we market that, on the east coast there's  
21 a -- in the mid-Atlantic and New England in  
22 particular, there's a big push from the industry

1 to implement traceability or -- and they want to  
2 do it themselves. They're not looking for money,  
3 they're not looking for any special treatment by  
4 the government other than access to confidential  
5 data, and that's a big problem. So the fisherman  
6 that wants to say here's where I caught the fish,  
7 here's the port I landed them in, here's the  
8 dealer I sold them to, here's the restaurant or  
9 the fish market that the dealer sold to, and they  
10 can't tell that story individually because it's  
11 all -- you run into data confidentiality real  
12 fast. So the confidential rules, you know, I  
13 understand why they're in place, but the  
14 individual fishermen that want to sort of tell  
15 their own traceability story are unable to do it  
16 because they get bound up by those  
17 confidentiality rules. So we're not sure how to  
18 get around that, we're not sure how to do that,  
19 but we want to help the fishermen tell their  
20 story; we're just kind of in a box where we can't  
21 do it right now. So it's something through ACCSP  
22 and some of the other programs, we're trying to

1 figure out a way to do that without breaking any  
2 laws on confidentiality. So it's something that  
3 we're -- it's an emerging request I guess you'd  
4 call it from the industry that they want to be  
5 able to tell the story, we just haven't figured  
6 it out yet.

7 MS. BRYANT: That's really good. I  
8 had no idea, and certainly I assume you're  
9 probably talking to the folks that were behind  
10 the model of Gulf Wild in the Gulf, and how they  
11 did that and everything still. I'd be happy to  
12 talk with you outside because I'd be interested  
13 in learning, too. Thanks.

14 CHAIR BEIDEMAN: Rai, we'll let you  
15 have the last word if it's really quick, because  
16 we're on our break.

17 MEMBER ESPINOZA: Yeah, I'll be really  
18 quick. The answer might not be able to be fit  
19 into it, but it's okay. So one question you  
20 mentioned that for the U.S. production, that it  
21 does not need to be another labeling process.  
22 But for example, in Puerto Rico, we have a huge

1 issue that we try to promote the local catch, we  
2 call it chillo, which is a --- it's a red  
3 snapper; it's the local red snapper, a queen  
4 snapper. However, every restaurant has it, and  
5 of course this can't be possibly produced locally  
6 or caught locally. It's just a bunch of any red  
7 fish from Asia or Brazil or Indonesia. So how  
8 would you -- how does that address it? How does  
9 this begin to address folks that are jumping on  
10 the bandwagon and it isn't actually something  
11 that is U.S. produced? And this is just the  
12 name, just the name.

13 MS. BRYANT: So you're talking about  
14 kind of a seafood fraud thing for  
15 misrepresentation or mislabeling? Wow. I don't  
16 look at this campaign as being able to answer  
17 that, but I do think there are so many  
18 technologies that are coming on board now, and  
19 you have such an incredible interest from the  
20 entire spectrum of the seafood supply chain  
21 really being driven by huge retailers. One of  
22 the leading efforts is really under Costco and

1 Wal-Mart in terms of addressing that seafood  
2 supply chain issue, the demands and the  
3 technology. It's building rapidly, and I really  
4 think within the next five to 10 years, that  
5 whole issue of seafood fraud -- I know that we're  
6 getting ready at the Boston Seafood Show in  
7 March, our own national seafood inspection lab  
8 has developed a new methodology using off the  
9 shelf technologies; they are currently building  
10 an online library for free, and you buy the off  
11 shelf technology and you run -- it's only for  
12 finfish, fresh or frozen, not prepared, no value-  
13 added product, but for fresh and frozen, and you  
14 can cheaply identify what that species really is.  
15 The retailers are just -- they're tired of  
16 getting thrown under the bus. I'm sure Roger's  
17 industry is tired of getting thrown under the bus  
18 with this economic fraud issue. So I'm not  
19 putting that kind of load on this effort, but I  
20 do think the technologies are coming forward.

21 CHAIR BEIDEMAN: Well, I have a  
22 suggestion, and if you're amenable Laurel, you

1 said you were going to be around today?

2 MS. BRYANT: Absolutely.

3 CHAIR BEIDEMAN: We have subcommittees  
4 and working groups scheduled for 3:15 until 5:00,  
5 and there's Commerce Subcommittee I presume  
6 Julie, Bonnie. But potentially if people would  
7 like to continue this conversation with you,  
8 depending on what work they have to do, that  
9 might be an opportunity to continue, because we  
10 are well into our break now, trying to get back  
11 on track. So is that okay with you, Laurel?

12 MS. BRYANT: That would be terrific.  
13 I welcome it, yes.

14 CHAIR BEIDEMAN: What about you,  
15 Julie? Okay. So we have a plan, and we're going  
16 to go to break, and I'd love to try to see if we  
17 can get started again at 10:30 on the dot, I know  
18 it doesn't give us much time, but let's give it a  
19 try. Thanks.

20 (Whereupon, the above-entitled matter  
21 went off the record at 10:22 a.m. and resumed at  
22 10:37 a.m.)

1                   CHAIR BEIDEMAN: Okay, we're resuming  
2 our schedule here, and we have the National  
3 Aquaculture program, and so I would like to  
4 introduce Michael Rubino, who is the Director of  
5 Office of Aquaculture.

6                   DR. RUBINO: Well I think first Paul  
7 was going to make a few introductory remarks.

8                   CHAIR BEIDEMAN: Go right ahead, Paul.

9                   DR. DOREMUS: Thank you Terri, very  
10 much appreciate it. This is a great step and a  
11 nice kind of point of departure from much of the  
12 commentary during Laurel Bryant's talk on the  
13 whole issue of communicating sustainability and  
14 looking at the seafood supply chain holistically.  
15 Columbus, you made the comment, you know, we've  
16 got to face the reality of our production  
17 capacity not meeting demand; that has been the  
18 case for decades on a global basis, and on a  
19 global basis, the demand has largely been met  
20 through aquaculture product, and that's what  
21 we're here to talk about, where we stand with our  
22 aquaculture program, implementation of our

1 strategic plan, but also putting this in the  
2 context of where we are today with the  
3 administration and with the environment that we  
4 find ourselves in.

5           And I think this environment is quite  
6 different. I think we are in a position now to  
7 take very bold steps to promote U.S.-based  
8 aquaculture production, and I think that  
9 environment is different in a number of respects.  
10 We're going to talk a lot and I'll frame up just  
11 a couple of aspects of the current administration  
12 and their thinking on this topic, and how our  
13 work fits. But I also think -- so I think in  
14 policy and political terms, the environment is  
15 different; I'll get to that in a second. But I  
16 think in social terms, the environment is  
17 different as well. I think that the discussion  
18 in the environmental NGO community is different  
19 than it used to be, I think the reflexive  
20 resistance to aquaculture has changed quite a  
21 bit, I think the environmental community looking  
22 at protein supply generally and the relative

1 ecological and environmental impacts of different  
2 forms of protein production, they're seeing  
3 aquaculture in a different light. It's not  
4 necessarily wild versus farmed, it's fish versus  
5 other forms of protein and the environmental and  
6 social dimensions and public health benefits that  
7 are attributable to fish-based sources of protein  
8 as opposed to land-based.

9 I also think that things have changed  
10 in the industry. We're seeing endorsement and  
11 support and demand for growth in our aquaculture  
12 capabilities of all forms that we haven't seen  
13 before across the whole supply chain. Industry  
14 is coming together and being much more vocal  
15 about it, and I also think that this debate, at  
16 least from what I have been hearing and a lot of  
17 us have been hearing in our various discussion,  
18 this debate between -- historical debate between  
19 wild capture of fisheries and farm fisheries has  
20 changed. The commercial wild capture people that  
21 I've had the benefit of speaking to see  
22 aquaculture as part of our seafood future; done

1 sustainably, sited well and managed effectively,  
2 we can build markets for seafood products  
3 broadly, so this can benefit both wild capture  
4 and farmed markets simultaneously as we have seen  
5 in the development of aquaculture product and  
6 capabilities on a global basis.

7           So I think the environment is really  
8 different, and I've had the great benefit,  
9 particularly with this transition to the new  
10 administration and being in a position to work  
11 directly with the Secretary, to see their forming  
12 interest in aquaculture. You have probably heard,  
13 and I've mentioned to many of you and in this  
14 setting, the Secretary is interested in what he  
15 routinely refers to as the seafood trade deficit,  
16 and would like to see greater sources of domestic  
17 supply as one of the major avenues for dealing  
18 with that deficit. We've had a number of  
19 discussions with the Secretary, including just on  
20 the 15th with a coalition of U.S.-based industry  
21 groups that really represented the whole supply  
22 chain, from feed producers all the way through to

1 value-added processors and distributors. And  
2 they had a very strong message and are getting  
3 back to the Secretary on endorsing the basic  
4 concept that Michael Rubino is going to lay out  
5 for you here today, the basic concept of a  
6 national aquaculture initiative.

7 We need leadership, we've heard from  
8 many of you for years now about that, and I think  
9 we are now at an opportunity, in kind of a unique  
10 time to be able to grab that mantle as it were  
11 and work on the issues that have inhibited  
12 investment in U.S. aquaculture production. So  
13 Michael is going to step through what we're  
14 calling the basic elements of a national  
15 aquaculture initiative; this is built off of and  
16 has benefitted from years of guidance from this  
17 body, both written and direct and indirect  
18 guidance and views of the committee, and we are  
19 looking for your feedback on where we stand and  
20 where we're going. And I'd like to, if I could,  
21 put a kind of a question out to you that came to  
22 mind as I heard Julie and others this morning

1 talk about well how can we use the committee  
2 going forward.

3 I think this is one area given the  
4 work of MAFAC for years in this area, and the  
5 work of the Commerce subcommittee in particular,  
6 this would be an opportune time, should you see  
7 what you would want to see in our approach here,  
8 for a formal MAFAC endorsement and letter to the  
9 Secretary on this concept. So I will put that  
10 out there as an ask of the committee, a  
11 recommendation to you as follow up action to this  
12 briefing here, to question us on what we're  
13 doing, what the sort of elements are and the  
14 broad categories centering, but certainly not  
15 exclusively focused on regulatory streamlining,  
16 and we think this administration is in a good  
17 position to provide and charge us with the  
18 leadership for taking this on across the federal  
19 community of agencies, and Michael will lay out  
20 what that might look like, but I think that we  
21 would benefit enormously from the formal  
22 endorsement of the committee here, and I'll put

1 that out there as a recommended action should  
2 you, in discussion and deliberation, should you  
3 agree with the kind of direction that we're  
4 setting out here.

5 So thank you for the opportunity to  
6 provide that introduction, but I also wanted to  
7 kind of put a fine point on that last  
8 opportunity, I think, for a formal communication  
9 from this body should you all, after discussion,  
10 find that to be an advisable thing to do. I  
11 would highly recommend it, and I hope that we can  
12 drive towards that. So with that, I'll turn it  
13 over to Michael Rubino, who needs no introduction  
14 to all of you I don't think. He's been the  
15 backbone of our aquaculture enterprise for years,  
16 and we're really grateful to have him lead us  
17 forward as we have these types of opportunities  
18 open up in front of us. So Michael, I will turn  
19 it over to you. Thank you.

20 DR. RUBINO: Good morning. Thank you,  
21 Paul. Good morning everyone. I believe you all  
22 have this presentation; in the interest of time,

1 I'm going to skip through the first part of it,  
2 which lays out a lot of the background and the  
3 rationale for why we'd even consider an  
4 aquaculture initiative. So you've got some  
5 takeaway messages which you've just heard about,  
6 you all know this; you've seen this slide many  
7 times. Paul talked about some of the drivers as  
8 well. Key constraints, now this -- we're  
9 particularly focused on the marine sector here,  
10 although we've had some preliminary discussions  
11 with colleagues at USDA and in the freshwater  
12 sector as well about an aquaculture initiative,  
13 but we've got some particular issues using the  
14 marine environment for aquaculture which have to  
15 do with social license, conflicts in coastal  
16 areas, which you're well familiar with. And  
17 overlaying all of that is this regulatory  
18 environment; it's complicated. The box on the  
19 lower left is just the permit process for  
20 shellfish farming in Washington State, and this  
21 would be the permit process for federal waters  
22 and state waters sort of outlined.

1           So an initiative really has four  
2 components, and this is based on the advice of  
3 discussions over the past nine months with a  
4 number of people in industry, has pulsed all  
5 through the value chain, environmental NGOs and  
6 others about what could particularly the federal  
7 agencies contribute working with you. So  
8 regulatory streamlining is the first one; not to  
9 change the regulations, but to get the federal  
10 agencies to be more efficient and streamlined  
11 about it. That -- and I'll go through each one  
12 of these -- the second part is Senator Wicker  
13 from Mississippi has reintroduced or is re-  
14 drafting federal legislation to address the  
15 federal waters issue with aquaculture, and to  
16 have an effective streamline process for getting  
17 a permit in federal waters, and he's also added a  
18 provision to have a much expanded research and  
19 development program for all of aquaculture, so of  
20 interest to the broad sector of marine  
21 aquaculture. How do we jump start production?  
22 One way is through pilot and demonstration

1 projects, and then longer term to support an  
2 industry like in any fisheries or agricultural  
3 sector, you need sort of a combined  
4 federal/university/ private research and  
5 development engine to deal with issues as they  
6 come along, keep technology innovative. So  
7 that's the fourth part.

8           So regulatory streamlining, state and  
9 federal waters. You know one of the things we  
10 can do -- in the marine environment, you need a  
11 permit from the Corps of Engineers; that triggers  
12 consultations with the Fishery Service and the  
13 Fish & Wildlife Service. If you're going to  
14 fish, you also need a permit from the EPA. Isn't  
15 there a way to sort of collapse that process, and  
16 rather than doing it sequentially with three sets  
17 of paperwork or five sets of paperwork, have one  
18 set of paperwork, one set of studies, one set of  
19 monitoring and evaluation that meets the needs of  
20 all of those agencies and permits? Can we be  
21 more proactive, looking at areas regionally to do  
22 the National Environmental Policy Act work up

1 front, to sort of do that review of all the  
2 environmental and social issues so that each  
3 permit applicant doesn't have to do a full blown  
4 environmental impact statement for each permit?

5 On the right, you've got, you know,  
6 with GIS abilities these days and all the data  
7 and the big data field, pulling that all together  
8 to identify sites and locations, look at the  
9 various conflicting uses to identify the best  
10 sites for aquaculture and to help avoid some of  
11 the user conflicts. So a number of our  
12 colleagues are expanding our capabilities to work  
13 with others on the siting question. So those are  
14 a number of the things we would envision under  
15 regulatory streamlining; it could take the form  
16 of an executive order or a memorandum to the  
17 agencies saying okay, come up with a plan for how  
18 you're going to work together better, faster,  
19 more efficiently. We've got -- you know, I had a  
20 lot of preliminary discussions with the Corps of  
21 Engineers and EPA going through the process of  
22 coming up with a coordinated permit process in

1 the Gulf of Mexico, and federal waters was a  
2 really good first step of working through some of  
3 these issues. We've also had a number of  
4 discussions in the shellfish field over the past  
5 several years about how to streamline this  
6 process. So with some direction, I think the  
7 agencies are ready to go and to work together on  
8 this.

9 Federal waters; we've been trying to  
10 figure out this question for 15 years or more, 20  
11 years, back to when Bob Rheault worked on a study  
12 in the late 1990s, is that right, with the  
13 University of Delaware looking at how would you  
14 regulate aquaculture in federal waters.  
15 Legislation was proposed in the mid-2000s; the  
16 Gulf of Mexico Fishery Management Council put  
17 together a fishery management plan to try to do  
18 this under Magnuson. So we have a way to do it  
19 under Magnuson; there's a process in place for  
20 the Gulf, but it's subject to a lawsuit  
21 challenging the basic premise of can you use  
22 Magnuson to do this. And you know the Western

1 Pacific Council is looking at this now, other  
2 councils could as well, but again they still  
3 could be subject to lawsuits. Is there a way,  
4 again, to look at this through national  
5 legislation as a possibility? And Senator Wicker  
6 has a draft bill similar to the bills of the mid-  
7 2000s; we've learned some lessons since then  
8 about how to be efficient about legislation, what  
9 to do and what not to do. Industry has voiced  
10 their concerns, NGOs have voiced their concerns  
11 over the years, so the working draft of the bill  
12 is in pretty good shape, and I hope you can take  
13 a look at that, and some of you probably already  
14 have taken a look at that.

15 At the moment, for federal waters,  
16 we've got this checkerboard approach, and it's  
17 not consistent and it's not conducive to making  
18 that another option for aquaculture. So this is  
19 the basis of Wicker's bill, it would provide  
20 long-term permit or lease issued by NOAA so that  
21 an operator has security of tenure. You'd still  
22 coordinate with all the other agencies as we've

1 done with the Gulf rule, there would be advice  
2 from the states and from the councils. All of  
3 the other laws would apply, but there might be  
4 some additional environmental and monitoring  
5 requirements, particularly from a fisheries  
6 management perspective that might be needed. And  
7 there's the question of in the past, the state of  
8 Alaska was interested in a so-called opt out not  
9 to have aquaculture in federal waters or fish  
10 farming in federal waters off of Alaska, so  
11 that's an issue that would have to be dealt with.

12 Underlying all of this regulatory  
13 streamlining is the science we need to be able to  
14 make permit and management decisions. So we  
15 haven't been sitting still during this period,  
16 we've developed a whole tool box for state and  
17 federal waters so that the permit process can go  
18 more smoothly, more efficiently, and yet from a  
19 stewardship perspective, we can still do our job  
20 as federal agencies. This is both for finfish  
21 and for shellfish, and we're now starting to look  
22 at it for algae farming as well, which raises

1 many of the same issues in terms of siting,  
2 conflicting uses, entanglement questions and so  
3 on.

4 One way to jump start aquaculture is  
5 for people to be able to engage in it, to see it,  
6 to touch it, to feel it, to be more familiar with  
7 it. The first time someone wants to do a fish  
8 farm or an oyster farm in a region is often very  
9 difficult and contentious. But once a couple of  
10 them are there, in terms of the coastal community  
11 that's around them, it becomes their farm, and  
12 when they go up for re-licensing, it's often a  
13 lot easier. But we still don't have very many  
14 models out there. All of us grew up with reading  
15 kids' books about family farms and horses and  
16 cows and chicks and pigeons, but nobody grew up  
17 reading books about a fish farm or an oyster farm  
18 or a mussel farm. So culturally, we still have  
19 this challenge.

20 This year, Congress gave the Fishery  
21 Service some additional funds to look at pilot  
22 projects; the three fisheries management

1 commissions have been gracious to work with us to  
2 have a competition, which will be announced I  
3 believe on December 1. It's, you know, it's not  
4 a lot of money; it's \$500,000 for each commission  
5 to put out there for three or four or five  
6 projects per region. It's a little bit like the  
7 Saltonstall-Kennedy Grant Program, a little bit  
8 like the Sea Grant Aquaculture Program, but with  
9 a focus on coastal communities and on getting  
10 domestic production going. So working with  
11 industry in coastal communities. And your ideas  
12 on how to do this going forward would be  
13 valuable.

14           The longer term part then is sort of  
15 the research and development technology transfer  
16 engine. My former deputy, Lorenzo Juarez, who  
17 went back to working with fish farms around the  
18 world, has this great presentation where he says  
19 okay, now you're a fish farmer; here are the 20  
20 things that can go wrong, and who do you go to  
21 for help? You know, each company can't afford  
22 all of the disease diagnostics, looking at novel

1 feeds, looking at siting issues and so on, and in  
2 the agricultural sector, we've got this whole  
3 land grant university system with extension  
4 agents to transfer research to the field. We  
5 have that through Sea Grant to a certain extent  
6 too, but it's largely underfunded and could use a  
7 lot more work if we're going to have an industry  
8 going forward.

9           So those are the four components;  
10 obviously to implement something like this has  
11 staffing and resource implications for the  
12 agency. We've already talked with our regional  
13 offices about what does regulatory streamlining  
14 mean, what kinds of activities and actions could  
15 you take. Certainly there's some budget planning  
16 implications as well; how do we make use of our  
17 existing grant resources effectively. Here's the  
18 funding we currently have available, it does not  
19 include the Saltonstall-Kennedy or Small Business  
20 Innovation Research grant funding, but it does  
21 include the Sea Grant funding. We've been very  
22 good as a program and an agency I think in terms

1 of leveraging other people's money to do what we  
2 collectively would like to get done, the latest  
3 of which is a couple of us worked with the  
4 Department of Energy on a \$22 million competitive  
5 grants program for seaweed farming. Well you  
6 think Department of Energy seaweed; well,  
7 learning how to grow seaweed in the marine  
8 environment for food or for feed is a way to  
9 eventually grow seaweed for energy. So there are  
10 five, 10 consortiums around the country now  
11 getting themselves organized; about \$3-5 million  
12 per award to look at seaweed farming. In  
13 addition, my colleague, James Morris at the  
14 Beaufort Lab received \$3 million from DOE to do  
15 all the spatial planning work for these potential  
16 algae farms; those capabilities we can also use  
17 for fish and shellfish farming spatial planning  
18 work.

19 Stakeholder coalitions, that's what --  
20 - we certainly did that with the national  
21 shellfish initiative which, pardon the pun,  
22 spawned a whole group of state and regional

1 shellfish initiatives to get the commercial  
2 industry and the restoration community and the  
3 fishing community to work together on getting  
4 oysters, clams, mussels back into the water  
5 faster. It's had great success in some places as  
6 a way to wave a banner and to get attention for  
7 some very specific actions, and we have heard  
8 over the past nine months from the broader  
9 aquaculture community that using that same  
10 concept of an initiative might work for marine  
11 aquaculture or for aquaculture or for aquaculture  
12 in general more broadly.

13 So that's a quick overview, and we'd  
14 be very open to your ideas and suggestions about  
15 how to proceed, and then more broadly about the  
16 role of MAFAC to advise the agency and our  
17 program on aquaculture. So let me stop there.

18 MEMBER GILL: Thank you, Madam Chair.  
19 Thank you, Michael, for the presentation, and you  
20 certainly have highlighted the challenges  
21 relative to marine aquaculture.

22 One of the things that surprised me,

1 your previous slide notwithstanding, is that I --  
2 well, let me back up. Aquaculture, to me, is one  
3 of those issues that generates emotions, for  
4 whatever reason.

5 We certainly saw that in the Gulf when  
6 we developed that amendment, and as such, that  
7 the education and outreach seems to be a major  
8 component of any program going forward. But you  
9 did not include that as one of your -- I would  
10 call it five but you thinned it down to four --  
11 major objectives.

12 It seems to me that that's higher than  
13 just the stakeholder engagement side that you  
14 have a significant -- as evidenced by the  
15 litigation folks that are not willing to accept  
16 the possibility of aquaculture. Why is that not  
17 a bigger item on your priority list than you  
18 currently have it?

19 DR. RUBINO: We've heard this before.  
20 In fact, a couple of weeks ago when Paul and I  
21 met with this group of ten companies, one of  
22 their key concerns was, how do we get people to

1 eat more seafood in general, and in particular,  
2 addressing these public perception issues about  
3 aquaculture.

4 They were concerned from a consumption  
5 perspective in terms of the increasing seafood  
6 consumption. But it also then bleeds over into  
7 these sort of social license questions and sort  
8 of making space in our marine backyard for  
9 aquaculture.

10 So it could be included. Is outreach  
11 and communication sort of the leading role of the  
12 federal government? Are we the ones who should  
13 be telling that story? Are we good at telling  
14 that story? I mean, we had a presentation about  
15 FishWatch earlier. We struggle a little bit with  
16 FishWatch about how to include aquaculture in  
17 that, but it's certainly possible.

18 A year ago -- roughly, to the week --  
19 in D.C., I worked with USDA to bring together a  
20 group of 20 or so market experts to talk about  
21 this key question and would, in effect, design an  
22 XPRIZE type of competition around changing public

1 perceptions about aquaculture.

2 So these were chefs, branding experts,  
3 food service people, people who work for  
4 aquariums, web designers, and others, not  
5 traditional, sort of aquaculture producers. And  
6 they helped us to design a potential prize that  
7 the federal government could work with industry  
8 on to change these perceptions.

9 So you might have, like, five winners  
10 that worked on YouTube storytelling, social  
11 media, placing op-ed articles. I mean, there's a  
12 whole variety of things you could do. A prize in  
13 itself doesn't provide the winners a lot of  
14 money, but it provides a lot of recognition  
15 perhaps to go forward.

16 So it's certainly something we've  
17 thought about and could be included.

18 CHAIR BEIDEMAN: Harlon?

19 MEMBER PEARCE: Oh, there we go.

20 Mike, I want to thank you and Paul for all the  
21 hard work you've put into this project. I know  
22 it's been an uphill fight all the way, but you

1 guys have done a yeoman's job getting that done  
2 and I applaud you for that.

3 And some of the problems -- to address  
4 what Bob just said -- was that we have met the  
5 enemy and it is us all the time. Anytime any one  
6 of our fisheries, whether it'd be an aquaculture  
7 fishery in shore or a wild fishery that beats up  
8 on imports beats up on aquaculture in general and  
9 makes our job a lot harder.

10 Imports that are good should be here,  
11 and they create markets for these same fisheries.  
12 So we've got a battle to fight within us to help  
13 straighten out our own industry. And that's why  
14 I'm hoping that, through Laurel and everything  
15 else that goes over there, we can get our  
16 commercial guys more involved in this process in  
17 seeing what's going on.

18 Secondly, I'd like your take on that  
19 meeting that you had on the 15th with all of the  
20 interested parties. I've got a good idea what  
21 happened, but I'd like to hear what you think  
22 about what happened and how it may go forward

1 from here.

2 DR. RUBINO: Well, I think there's  
3 been a number of meetings over the past couple  
4 years similar to the one of a couple weeks ago.  
5 Two or three years ago, something called a  
6 Coalition for U.S. Seafood Production tried to  
7 get started.

8 If you look at most of our major crop  
9 or commodity groups, they're well unified. If  
10 look at the Soybean Association or milk or corn  
11 producers and others, they've got an association.  
12 They have a check-off program that supports  
13 research and development and marketing. They  
14 have a strong, unified lobbying voice.

15 Aquaculture is very diverse. It's  
16 many species. You've got freshwater, saltwater.  
17 You've got finfish, shellfish. You've got the  
18 processors and importers who've traditionally  
19 belonged to the National Fisheries Institute, and  
20 you've got producers -- mostly smaller producers  
21 -- who belong to the National Aquaculture  
22 Association. There hasn't been a way to sort of

1 get them all together under one tent, that whole  
2 value chain, to push for increasing domestic  
3 aquaculture.

4 So the meeting a couple weeks ago I  
5 think is the latest of a series of efforts of, in  
6 this case, larger companies who -- from feed  
7 producers to finfish and shellfish producers to  
8 fish processors and catchers to food service,  
9 food marketing companies to wholesalers -- said,  
10 how can we, as leading companies, pull together,  
11 say, a one- or two-year campaign to push for some  
12 of these things with the administration and with  
13 Congress.

14 So that's their objective they want to  
15 bring along. They don't want to displace what  
16 the National Fisheries Institute or the National  
17 Aquaculture Association has done. They want to  
18 bring them along, invite them, build on their  
19 efforts. But I think they're a little impatient,  
20 honestly.

21 MEMBER PEARCE: Just as a -- I just  
22 it's time that they get involved. I think they

1 need to step up, and I thought that was a great  
2 meeting. And it does go back to everything  
3 that's done in the past. All the meetings we've  
4 had in the past sort of brought it to this  
5 meeting here, and I'm just hoping that they  
6 continue in this effort to make things happen.  
7 That's all.

8 DR. RUBINO: Well, another meeting was  
9 the one that you convened in the Gulf a year ago  
10 where your clients -- the restaurants and  
11 supermarkets -- were criticizing you and the food  
12 service companies for not providing local. So  
13 the challenge was how can commercial fisheries  
14 and aquaculture work together to bring back local  
15 to the marketplace?

16 So maybe you've got snapper and  
17 grouper on Monday and Tuesday, but you can have  
18 red drum and cobia on Thursday and Friday and  
19 have enough supply rather than having -- what is  
20 it -- in New Orleans, you've got 30,000 pounds of  
21 frozen red drum fillets coming in every week from  
22 China. That's our collective challenge there.

1 DR. DOREMUS: I wanted to add a little  
2 bit to Michael's response, Harlon, to your  
3 question about this meeting on the 15th. There's  
4 a follow-up discussion that that group is having  
5 this week that I'll be participating in. We're  
6 anticipating that they're going to communicate  
7 formally to the Secretary about -- which you  
8 encourage them to do -- about what they would  
9 like to see.

10 This approach that Michael outlined  
11 here has come out of a wide range of industry  
12 discussions that we've had over the course of a  
13 considerable time period. And this group formed,  
14 in part, to try to serve that role of bridging  
15 the community. Michael is talking about this  
16 being a fairly fragmented industry. They're  
17 trying to self-consciously take that on.

18 So they want to build out a larger  
19 coalition, and they're exploring. They  
20 identified a list of additional firms that might  
21 be interested. They wanted to start small, have  
22 a meeting with the Secretary, see if there's an

1 appetite there for going in this direction --  
2 they found out that there is, the Secretary is  
3 very enthused about it -- and ask them to tell  
4 him what they would like to see happen.

5 So they're going to do that. They're  
6 going to formally communicate, and they're also  
7 intending to build out a broader coalition to try  
8 to make these things happen and to also provide  
9 an industry voice in a congressional discussion  
10 that's starting to evolve around the Wicker bill.

11 The only other thing I wanted to  
12 mention about the meeting is the view from the  
13 Secretary. He was very concerned about how this  
14 initiative would be received by wild capture  
15 industry representatives. And that's something  
16 we have gone out of our way to try, to address to  
17 talk to people about how this could help promote  
18 sustainable U.S. seafood more broadly.

19 But that's still an open question in  
20 the Secretary's mind, and that is one thing that  
21 we're going to need to follow up with him  
22 directly on. He's hoping that industry will kind

1 of pull together and have these conversations and  
2 be able to move forward and not have the kind of  
3 internecine conflict that has sidelined the  
4 movement for aquaculture legislation in the past  
5 and has made it difficult to progress with this  
6 type of initiative.

7 So I just wanted to add an additional  
8 comment there. Thank you, Madam Chair, for the  
9 opportunity to do that.

10 CHAIR BEIDEMAN: I'm going to go to  
11 Roger, then I'll come back to you.

12 MEMBER BERKOWITZ: Mike, the U.S. has  
13 been reluctant to certify wild -- or aquaculture,  
14 certifying it organic. There are some organic  
15 aquaculture programs worldwide out of, I believe,  
16 Scotland. There's a salmon program that's  
17 organic. There's a new shrimp program out of  
18 Vietnam that's just been certified organic.

19 What's are your thoughts? Because  
20 organic, certainly when you talk organics and  
21 sustainability, that is something that the  
22 marketplace is pushing for, and how is the U.S.

1 sort of looking at that?

2 DR. RUBINO: It's an issue I know  
3 intimately, having been involved in discussions  
4 with federal agencies over the past ten years  
5 about how to get to an organic standard. We were  
6 very close at the end of the Obama administration  
7 or USDA was very close to issuing a draft organic  
8 rules for aquaculture.

9 There were some disputes amongst  
10 agencies over the provisions for finfish and for  
11 feeds that, in the minds of some of us, myself  
12 included, would've made the standards completely  
13 unworkable. USDA was directed by OMB to go back  
14 and rework the standards, and then we just ran  
15 out of time with the administration.

16 So I think the groundwork amongst the  
17 agencies has been set to resolve these questions  
18 if there's a push from industry and others to  
19 look at this again.

20 MEMBER BERKOWITZ: I'm pushing.

21 (Laughter.)

22 DR. RUBINO: I'd be happy to talk to

1 you about that further. I think --

2 MEMBER BERKOWITZ: Okay. Thank you.

3 DR. RUBINO: -- a year ago, some  
4 agencies thought that no rule was better than a  
5 bad rule. But we had come to an agreement over  
6 what at least a reasonable rule would be.

7 You've got some challenges in the  
8 environmental community about organics and  
9 aquaculture, going back to all these historical  
10 issues with fish farming. We've also got  
11 challenges with the organic industry that doesn't  
12 want to share organic with another commodity  
13 group. So that's a challenge too, to be blunt.

14 MEMBER BERKOWITZ: Okay. Thank you.

15 CHAIR BEIDEMAN: Erika?

16 VICE CHAIR FELLER: Thanks. I just  
17 wanted to add on your list of things where you're  
18 talking about research and development and  
19 outreach and opportunities for partnerships, I  
20 don't know, over maybe the last decade or so, the  
21 National Fish and Wildlife Foundation has  
22 probably made about five and a half million

1 dollars' worth of grants. Most of it matched one  
2 to one.

3           There's some exceptions in there for a  
4 lot of the stuff that you talked about, and I  
5 think -- I don't know. I haven't dug into this.  
6 I'm still new at NFWF. But one of the things  
7 we're really interested in is how can we invest  
8 more in the types of goals you've identified for  
9 aquaculture? How can we make these investments  
10 more strategic in supporting kind of this broader  
11 set of goals?

12           I'm not real sure that a lot of these  
13 grants necessarily get there, but some of them  
14 do. But it might be good to talk about this and  
15 think about how NFWF could help. Because we're  
16 not just doing this for our Fisheries Innovation  
17 Fund, which this year's grants then includes one  
18 agriculture project in Massachusetts that  
19 includes a whole history. But we're also doing  
20 this work through Long Island, Chesapeake Bay,  
21 Five Star. A lot of our IDEA grants, all this  
22 kind of stuff out there is working in

1 aquaculture.

2 DR. RUBINO: I'm sure we will welcome  
3 that conversation. And in fact, Tony Chatwin --  
4 who was a member of MAFAC earlier and worked with  
5 you at NFWF for several years -- and I talked  
6 about putting together an aquaculture innovation  
7 fund that NFWF would manage.

8 And we actually went and talked to  
9 some donors and talked to our management here at  
10 NOAA about trying to match that. It didn't quite  
11 get off the ground -- this was three or four  
12 years ago -- but we certainly had some  
13 preliminary discussions. So I would welcome  
14 that.

15 And in terms of if Congress would like  
16 us to do more pilot demonstration projects, that  
17 might be a way of leveraging that money in a very  
18 effective way with other money.

19 CHAIR BEIDEMAN: Bob?

20 MEMBER RHEULT: Michael, I was kind  
21 of surprised you said that some of us were being  
22 impatient. Some of us have spent our entire

1 careers getting old and gray pushing for this.  
2 Sebastian and I have.

3 But I view some of our challenges are  
4 -- I fired off an intemperate email to some NOAA  
5 leadership a few weeks ago where I pointed out  
6 that NOAA is a schizophrenic agency. We are  
7 regulating aquaculture, and we are promoting  
8 aquaculture. And we also have this culture of  
9 being pro-fish and fishermen and not necessarily  
10 pro-aquaculture in the Agency. And I see that  
11 it's changing in the administration level, but  
12 it's not trickling down to the folks who are  
13 writing the permits and doing the work.

14 And so sometimes, I find if we had  
15 been treated the same way a fisherman was being  
16 treated, certain things would've been resolved  
17 long ago and a very different outcome. But we're  
18 not. The people on the ground in National Marine  
19 Fisheries Service are very wild capture centric.  
20 And I don't know how we get them to recognize  
21 that leadership has moved on. Leadership wants  
22 aquaculture to be a priority, and it's not

1       happening.  So how do we steer the ship?

2                   One of the other things that would be  
3 really helpful is combating this information.  
4 When we are attacked in the press for something  
5 that happened in Vietnam and was terrible, it's  
6 not U.S. aquaculture.  And when an industry  
7 person stands up and says, that's not us, we  
8 don't have the same credibility as NOAA does.

9                   And that's when we need you guys to  
10 step up and say, look, our aquaculture is  
11 sustainable.  Our management is real.  Our  
12 enforcement is effective, and we can do this  
13 right in the U.S.  If I stand up and say that, I  
14 don't have the same credibility as NOAA does.

15                   It's a few thoughts on how we might  
16 move the ball forward.

17                   CHAIR BEIDEMAN:  Okay.  Harlon was  
18 next in the queue.

19                   MEMBER PEARCE:  Thank you, Madam  
20 Chair.

21                   Roger, just to answer your question a  
22 little bit.  Catfish in this country has gone

1 under USDA now to where we've got inspectors in  
2 our plant every day if we do -- I'm a wild  
3 catfish guy. And we do know chemicals and all  
4 this other stuff, and we tried to put organic or  
5 chem-free and we were told we couldn't by USDA.  
6 We could do all natural. That's the only thing  
7 they'll allow us to put on a label, even though  
8 we are chem-free and everything. So we're trying  
9 to get past that and do something different. So  
10 that's working for at least the wild end.

11 And then Paul, some of the things that  
12 are important that, as we've worked through this  
13 process, we have -- when it comes to the lawsuit  
14 -- pulled a lot of the fishing groups off of that  
15 suit. So we're chipping away at what's going on  
16 with that lawsuit. So I'm not really worried  
17 about that lawsuit as much as I am other things.

18 And I think that some of the things  
19 that would help calm down some of the commercial  
20 fishing side is that when we do market farm, we  
21 have to market wild at the same time. We have to  
22 make sure that the fishermen, just like copper

1 over salmon, understand that the farmed commodity  
2 is going to come in and create a marketplace  
3 across this country that's the center of the  
4 plate that's domestically raised. But it'll also  
5 increase the value of the wild fishery that will  
6 step up and fill the niches that they need to  
7 fill for these better upper-end restaurants that  
8 want the wild product for themselves.

9 So I think that it's important for the  
10 fishermen to understand that that needs to be a  
11 part of the process, that we make sure that they  
12 understand that we're here to help them, not just  
13 do just farmed.

14 CHAIR BEIDEMAN: Mike?

15 MEMBER OKONIEWSKI: Thank you. I  
16 think as far as an industry perspective on this,  
17 money chases opportunity or you don't last very  
18 long. And when you look at a 10, 15-year horizon  
19 for potential to do something, it's kind of hard  
20 to get too enthused about pouring in all kinds of  
21 money.

22 Something else I've learned in

1 industry is usually if somebody doesn't take a  
2 leadership role, things don't get done. And by  
3 the way, I totally agree what Bob had to say,  
4 except the fishermen don't always get the  
5 opportunities you may think they do, or the  
6 processors for that matter. We face some of  
7 these same hurdles, but it seems like it's a  
8 mega-scale when it comes to aquaculture.

9           And schizophrenic maybe overstates it  
10 a little bit but maybe not. We are promoting,  
11 and at the same time, it seems like we run into  
12 these continual hurdles at the lower echelons  
13 where NOAA general council, be it as it may, and  
14 why we can't do something.

15           And the leadership, I think, on  
16 aquaculture -- I may be wrong, but I think you  
17 are going to -- NOAA fisheries, if we really want  
18 to get this accomplished, is going to have to  
19 take a much stronger role with the other  
20 agencies. And I don't know how that works. I'm  
21 not a regulatory government guy.

22           But it's just mired down so much, and

1 it's so confusing when you want to look out there  
2 and see what you can do, that right now, we're  
3 pretty -- we are invested in aquaculture to some  
4 degree in specific seafood. But nonetheless,  
5 it's we kind of know we're stopping and looking  
6 to see what's going to happen before I think we  
7 make any other major investments in a different  
8 direction than we're doing now and for good  
9 reason, I think.

10 So I really thank you for your work,  
11 Michael, because you've, I think, done a  
12 tremendous job. But I think everybody is going  
13 to kind of pull the same direction throughout the  
14 Agency if this is going to get done. So thank  
15 you.

16 CHAIR BEIDEMAN: Did I see you up,  
17 Randy?

18 MEMBER FISHER: Yes. Mike, I was  
19 wondering how much work has been done with the  
20 governors' offices and whether there's an  
21 opportunity there. Because the western governors  
22 get together every once in a while, and I don't

1 think this has ever been on an agenda, really.

2 And obviously, if you have a state  
3 agency like a fish and wildlife agency that's  
4 going around behind your back saying things that  
5 really aren't right, that maybe there's an  
6 opportunity to kind of play politics up front  
7 with the governors so at least they know what's  
8 going on. And I don't know how much of that has  
9 happened.

10 DR. RUBINO: A little bit; not enough.  
11 It's a good suggestion.

12 CHAIR BEIDEMAN: Sebastian?

13 MEMBER BELLE: Thank you, Michael, for  
14 your presentation. For those of you who know me,  
15 you won't be surprised by the fact that I have a  
16 few thoughts.

17 (Laughter.)

18 MEMBER BELLE: First of all, kudos,  
19 Michael, to you and Paul for all the leadership  
20 that you have shown here and the hard work that  
21 you put in over the years. I know there have  
22 been many frustrating moments, and I think you

1       deserve a great deal of credit for the leadership  
2       that you've shown.

3               A couple of comments. I think, in  
4       principle, the stuff that you put up there,  
5       Michael, makes a lot of sense. As you know, the  
6       devil is in the details. And so I would say,  
7       from the beginning, do no harm. And by that, I  
8       mean we have existing operations and state orders  
9       that are going through state permitting  
10      processes.

11              At least in our neck of the woods,  
12      those processes work. Are they perfect? No.  
13      But please don't do something in federal waters  
14      that would establish precedent and that would  
15      complicate things in state waters as a result of  
16      very well-intentioned and thoughtful work at the  
17      federal level that may have unintended  
18      consequences within state waters.

19              The other piece I think is while I  
20      hear the comment about the industry has no  
21      unified voice -- and I am very aware of the  
22      recent meeting that's happened being led by

1 Cargill -- I would say a couple of things.

2 One is, I think -- and I would be  
3 remiss if I didn't say this. I'm Vice Chair of  
4 the National Aquaculture Association. NAA  
5 submitting comments regarding what they felt were  
6 their priorities with respect to the changes that  
7 needed to be made at a federal level. And first  
8 and foremost, in those comments was this issue  
9 around a permit versus a lease.

10 And so I'm just going to go on record  
11 again in saying that security of tenure and a  
12 lease versus a permit is a make-or-break issue  
13 from the private investor's point of view. And  
14 that's a big part of the reason why you see  
15 American capital going to other countries is  
16 because of that issue.

17 I certainly agree with some of Bob's  
18 comments, but I also think that -- as I think I  
19 heard somebody else say -- the Agency has got  
20 this kind of conflicted position around  
21 commercial fisheries as well in terms of  
22 promotion and regulation. So I think, perhaps

1 naively, I have an optimistic take on the fact  
2 that the Agency will be able to grapple with that  
3 internal conflict and, over time, change some of  
4 the internal corporate culture.

5 The reality is if the Agency doesn't  
6 change that corporate culture over time, then you  
7 will end up with a smaller and smaller group of  
8 stakeholders, whether you like it or not. And  
9 that will impact the Agency's ability to generate  
10 budgets and funding from Congress.

11 And that's just -- I'm not singling  
12 any group out. I'm just saying that's the way  
13 it's going to happen from my perspective. And  
14 that will not do this country very good, and it  
15 will certainly not do the Agency itself any good  
16 in terms of its ability to raise funds from  
17 Congress.

18 With respect to Roger's comments on  
19 the organic standards, many of you know this.  
20 I've been part of a group that's worked for 18  
21 years to get those standards through, and my  
22 level of frustration with that exercise is

1 something I have a very difficult time  
2 verbalizing.

3 But I will say this. We are currently  
4 forced to compete against organic product in the  
5 marketplace that is produced in other countries,  
6 and the market is asking for that product. And I  
7 know, Michael, that you have worked particularly  
8 hard in trying to coordinate with some of the  
9 other agencies to have input to develop a  
10 balanced set of standards. And I think that's  
11 been tremendously helpful.

12 We now need to get a draft set of  
13 standards out for rulemaking and on the street.  
14 And the public and the market is demanding it.  
15 We, as domestic producers, would like a shot at  
16 trying to achieve those standards. We don't know  
17 whether they're achievable or not. Some people  
18 say they are; some people say they aren't. But  
19 without standards, we have no chance of trying to  
20 achieve them, and so I think that's important.

21 And then with respect to Paul, you're  
22 asking for an endorsement by MAFAC to this

1 initiative here. I just have to say -- and I'm  
2 just going to -- and again, for many of you, you  
3 haven't served on a board with me before. But  
4 for those of you who have, you won't be surprised  
5 by what I'm about to say.

6 This is the first time I've seen this  
7 kind of package. And because I am Vice Chair of  
8 NAA and NAA has taken positions on some of this  
9 stuff, I'm going to abstain from any MAFAC vote  
10 in terms of endorsing this proposal just because  
11 I think I would not be doing my colleagues on the  
12 NAA board any fair justice by endorsing something  
13 that they haven't had a chance to react to. So I  
14 just say that as a point of process.

15 But certainly, for me, personally, a  
16 lot of what you're proposing makes sense. The  
17 one piece I think which is missing is -- and  
18 Michael, you've heard me say this many times  
19 before -- is if we are to have a competitive  
20 domestic aquaculture sector, we need to have the  
21 kinds of economic development programs -- not  
22 research programs but economic development

1 programs -- that include all the kinds of tools  
2 that the commercial fishing industry have been  
3 able to use over the years to stimulate  
4 investment in the sector. We need the same kinds  
5 of tools for aquaculture.

6 So without the security of tenure and  
7 without those kind of economic development  
8 programs, it's going to be very difficult to  
9 attract investment in federal waters in  
10 particular. And all the other stuff is important  
11 and will be tremendously helpful, but I think  
12 without those two kind of key ingredients, it  
13 will be unlikely that we will see significant  
14 investment in federal waters.

15 We will certainly see projects  
16 typically that will probably be funded in part by  
17 grants. But for real commercial investment in  
18 federal waters, we need a couple of key other  
19 pieces as part of that.

20 And Michael and Paul, you certainly  
21 have heard this from me before and you may  
22 already in your own mind have ways that you think

1 you can fit those into these kind of higher-order  
2 points. And I certainly respect that, and I'm  
3 willing to listen if that's the case. So thank  
4 you.

5 MEMBER YOCHER: I'd like to reiterate.  
6 This is Pam Yochem. Thanks to Paul and Michael  
7 for all the work that you've been doing. And  
8 note that it's not just the formal work but I  
9 want to applaud your creativity in finding other  
10 ways that you can be helpful. You talked about  
11 leveraging other sources of funding. You've made  
12 resources available for things like siting  
13 analysis and tapping kind of the science side of  
14 the Agency, and I really appreciate that.

15 And then I also just wanted to  
16 reiterate that the need for these kinds of  
17 economic development supports that other farmers  
18 get. I'm a veterinarian, so I'm very familiar  
19 with extension programs and those sorts of things  
20 that support land-based farming industry. And it  
21 took us almost 15 years to get a fellowship at  
22 the veterinary school of UC Davis for aquatic

1 animal medicine that would incorporate  
2 aquaculture or sort of production level health  
3 issues, not just the aquarium industry. So  
4 little by little, these things are happening, but  
5 they're absolutely vital.

6 And I think, Michael, you've talked  
7 before about there's a long line of investors who  
8 are waiting to be second once they see that there  
9 are one or two firsts in federal waters. Thank  
10 you.

11 DR. RUBINO: Certainly, the idea of a  
12 national aquaculture development plan is one of  
13 the terms that's been bandied about in  
14 discussions here. And the other question is, to  
15 what extend this is just marine or aquaculture  
16 more broadly?

17 If it's aquaculture more broadly, it's  
18 easier to bring in all of these economic  
19 development issues because USDA has got a lot of  
20 these tools. Some of which are available to  
21 aquaculture now; some of which could be available  
22 with some legislative changes; some of which

1       could be available if the USDA agents in the  
2       field were more familiar with how aquaculture  
3       works in terms of loan guarantees, risk  
4       insurance, crop insurance, and disaster  
5       assistance and so on.

6                   CHAIR BEIDEMAN: Harlon and then Randy  
7       and then Bob.

8                   MEMBER PEARCE: Thank you.  
9       Understanding Sebastian's concerns, I still would  
10      like to see Julie and her aquaculture group this  
11      afternoon discuss the development of a letter of  
12      support from this group to the Secretary. And I  
13      do understand where you're coming from,  
14      Sebastian, but I do think it's important that we  
15      -- if we so choose, to get this letter to help  
16      him understand better where we stand.

17                   CHAIR BEIDEMAN: Randy?

18                   MEMBER FISHER: Yes, I hadn't really  
19      thought about this before. But I'm assuming  
20      then, depending on what the future looks like,  
21      that the Agency yourself would have different  
22      responsibilities, meaning, if success walked

1 through the door and it had a bunch of  
2 aquaculture facilities, then are you required to  
3 inspect those? Or I mean, have you thought about  
4 what it would look like in terms of the Agency's  
5 responsibility in the future?

6 DR. RUBINO: In terms of federal  
7 waters, yes, the Gulf Rule and the permit process  
8 and the memorandum of understanding with six  
9 federal agencies that's in place looks through  
10 all of that. So I think we're ready there, both  
11 on the permit side as well as on the follow up,  
12 monitoring, evaluation, reporting. I even had a  
13 meeting last week with the IT people on how do  
14 you sort of put this all together in terms of  
15 database management.

16 On the state water side, because there  
17 are federal agencies and state agencies, it gets  
18 more complicated in terms of NOAA playing a lead  
19 role or a coordinating role or a facilitating  
20 role in terms of permitting. But we can  
21 certainly provide our expertise, our science  
22 knowledge.

1           We're already involved in all the core  
2 permits in terms of consultations on some of the  
3 key environmental questions. How can we do a  
4 better, more efficient, faster job on that, which  
5 would help where most of the U.S. marine  
6 aquaculture is still in state waters? And  
7 there's huge potential in state waters still too  
8 if we could resolve some of that.

9           MEMBER BEAL: Okay. Thank you, Terri.

10           Michael, thanks for the effort you  
11 have put in and your staff has put in to work  
12 with the three interstate commissions to get the  
13 RFPs to where they are. And I think we can  
14 release them later this week is what it sounds  
15 like. So thanks for that.

16           Following up on Pam's comment on kind  
17 of who wants to go first and then there's folks  
18 lining up to be second. Along the East Coast,  
19 I'm aware there's two efforts or two investment  
20 groups looking into do finfish projects in  
21 federal waters. And one is for Atlantic sturgeon  
22 and one is for Atlantic striped bass.

1                   And as you presented and everybody  
2 know here knows, the regulatory hurdles are high  
3 enough already. And it seems like those two  
4 groups are really setting themselves up to have  
5 even higher hurdles.

6                   Both of those species are illegal to  
7 possess in federal waters right now. The  
8 Atlantic striped bass has been illegal since  
9 1990. Atlantic sturgeon is protected under the  
10 Endangered Species Act or is listed as endangered  
11 under the Endangered Species Act.

12                  And it just seems like selecting those  
13 two species make these sort of test cases as hard  
14 as possible, impossible as possible, whatever you  
15 want to call. It just doesn't seem like those  
16 are the best sort of test balloons here for  
17 offshore aquaculture in the northeast or sort of  
18 southern New England area.

19                  So I don't know how you get the word  
20 back to those folks to maybe consider a different  
21 species. But it seems like those are going to be  
22 tough ones to sell coming right out of the gate.

1 Maybe down the road a little bit they'll work  
2 out. And I understand why they're picking those,  
3 and it's a potentially lucrative species if you  
4 figure it out. But just getting -- the first go  
5 out, it may not be the right group of species,  
6 along the East Coast anyway.

7 DR. RUBINO: As you might imagine,  
8 we've provided that advice to at least the  
9 company doing striped bass. I'm not aware of the  
10 sturgeon company.

11 CHAIR BEIDEMAN: Well, thank you very  
12 much. The presentation is excellent. And the  
13 ask, I'm going to toss over to the Committee for  
14 this afternoon, if they're interested in drafting  
15 up a letter. That would be something that MAFAC  
16 could vote on by the end of the meeting. That  
17 would be excellent.

18 But you can have that conversation in  
19 that Commerce Committee meeting today and follow  
20 on. But I certainly think that this body has  
21 done a lot of work on this topic and is  
22 interested in having it move to the next step if

1 we can be helpful in any way with what they're  
2 planning.

3 So anyway, we are just a tad over our  
4 break time, and we're going to continue trying to  
5 be punctual. So thank you very much. I'm going  
6 to give it to Jennifer.

7 MS. LUKENS: Thank you. Heidi, do you  
8 want to talk about what the logistics are --  
9 we're going on a break right now until 11:45 and  
10 coming back -- the logistics for lunch and the  
11 working session, please.

12 MS. LOVETT: Sure. So I have to check  
13 if lunch is here. It should be delivered to that  
14 room, and your names should be on sort of the box  
15 lunch for everybody.

16 From the West Coast Regional Office,  
17 Barry Thom, our Regional Administrator, is going  
18 to be kicking off the presentation about the  
19 Columbia Basin Partnership Task Force. And then  
20 you met Kristin Meira this morning, and we have  
21 Urban Eberhart who has joined us. Two of our  
22 Task Force members are here, and their

1 presentations are embedded into the single  
2 presentation that's on the website and that  
3 you'll be seeing.

4 Also, from the West Coast region,  
5 Katherine Cheney and Michael Tehan are staff who  
6 support the Task Force, and they'll be on the  
7 phone with Barry. Barry has a short time window,  
8 so we'll try to start promptly. Actually, we're  
9 going to make sure the sandwiches are delivered  
10 because they were supposed to be here at 11:20.

11 So the reason we scheduled it as a  
12 working lunch is because Barry has other time  
13 constraints and he has to get to Sacramento, if  
14 I'm not mistaken. So he's going to be the first  
15 presenter.

16 MS. LUKENS: Okay. So break until  
17 11:45.

18 (Whereupon, the above-entitled matter  
19 went off the record at 11:34 a.m. and resumed at  
20 11:51 a.m.)

21 CHAIR BEIDEMAN: All righty. Well, we  
22 have most of the tables seated, so we're going to

1 go ahead. And thank you, you folks on the  
2 telephone, for bringing us information on the  
3 Columbia Basin Partnership Task Force. I'm very  
4 interested in what's happened since I was out  
5 there and found out and we were tasked with this.

6 So I'm going to turn it over to the  
7 Regional Administrator for the West Coast, Barry  
8 Thom.

9 MR. THOM: All right. So hi again,  
10 everybody. I think the last time I talked to  
11 this group was probably sometime in 2016 in  
12 Portland when we were trying to establish this  
13 Columbia Basin Task Force under MAFAC.

14 So the first part of the presentation  
15 today is going to be just a little bit of a sort  
16 of review and some background for the new MAFAC  
17 members who weren't part of the 2016 discussion  
18 on the Task Force. And then we have the pleasure  
19 of having a couple of our stakeholders, Kristin  
20 Meira and Urban Eberhart. Hopefully, they're in  
21 the room there this morning.

22 MR. EBERHART: We are.

1 MR. THOM: So I want to allow plenty  
2 of time for them to give their perspectives on  
3 the Partnership Task Force. And then Katherine  
4 Cheney is on the phone as well and is going to  
5 give a little sort of update on where we are to  
6 date for what was accomplished so far and where  
7 we're headed over the next few months with the  
8 Task Force.

9 So with that, I'll get started with  
10 slide 2 and just start talking through just a  
11 little bit of the scope and background for those  
12 that aren't familiar with either the Columbia  
13 Basin or the Partnership Task Force itself. So  
14 just a little bit of the magnitude and issue  
15 we're dealing with.

16 The Columbia Basin is about the size  
17 of France, so that's the landscape we're trying  
18 to work on. In terms of the Columbia Basin  
19 itself, it's quite a diverse landscape and the  
20 lower river, really Bonneville Dam and below,  
21 it's highly urbanized. You've got the urban  
22 areas around Portland and Vancouver, Washington.

1 That land is mostly in private land ownership, a  
2 lot of private forestry as you get into the coast  
3 range of Oregon.

4 As you get above Bonneville Dam, it's  
5 largely agricultural landscape, and that's really  
6 that mid-Columbia is a lot of where the focus of  
7 this partnership tends to be on. And then when  
8 you get into the upper parts of the watershed,  
9 you're dealing with a lot of historical salmon  
10 habitat that's currently blocked by hydropower  
11 projects such as the Hell's Canyon in Idaho or  
12 the Chief Joseph-Grand Coulee project up in  
13 Northeast Washington.

14 People probably don't know this, but  
15 nearly half of all the ESA listed stocks on the  
16 West Coast are in the Columbia Basin. And also,  
17 there is a significant number of non-listed  
18 stocks in the Columbia Basin. And those stocks  
19 boast the healthy stocks within the Columbia  
20 Basin currently drive most of the West Coast  
21 salmon fisheries from California to Alaska.  
22 That's really the lifeblood of the West Coast

1 fisheries right now in the system.

2 I'm jumping over to Slide 3. So from  
3 a no fisheries perspectives, we've got a couple  
4 different responsibilities we're trying to deal  
5 with. I think the big focus tends to be on the  
6 Endangered Species Act and given the litigation  
7 that's been ongoing since the '90s related to the  
8 operation of the Federal Columbia River Power  
9 System.

10 But we also have responsibilities  
11 under the Magnuson-Stevens Act where management  
12 of those salmon stocks and ocean fisheries for  
13 helping sustainable stocks that aren't ESA  
14 listed. We've got a large treaty and trust  
15 responsibility, the tribes of the Columbia Basin  
16 that signed treaties in 1855, and they have a  
17 right to half of the harvestable fish in the  
18 system.

19 And then we've got responsibilities in  
20 working in management-related mitigation for the  
21 federal hydro system itself. A lot of the  
22 hatchery production in the system is a mitigation

1 responsibility as part of the development of the  
2 hydro system.

3 Like I mentioned, there's several  
4 stocks. There's 24 total salmon stocks in the  
5 Columbia. Only half of those stocks are listed  
6 under the ESA, and so I think that's one thing.  
7 People tend to think about salmon in the West  
8 Coast as an ESA issue. But really, in the  
9 Columbia, only about half of those stocks are  
10 listed under the ESA.

11 And that actually provides us some of  
12 the flexibility when we talk about developing  
13 goals in the partnership. Some of the  
14 flexibility and the balancing we're talking about  
15 is balancing that ESA and non-ESA perspectives  
16 and resulting goals in the system.

17 We've also got a lot of different  
18 plans and processes in the Basin, and I think  
19 that's been part of the struggle we've dealt with  
20 other time. Those plans and processes relate to  
21 all the different places we have in the system --  
22 the habitat, hydro, harvest, hatchery systems --

1       whether they're land management plans through the  
2       Forest Service, BLM, or whether they're harvest  
3       agreements under the U.S. v. Oregon harvest  
4       agreements or what you call the Federal Columbia  
5       River Power System or the FCRPS. So there's a  
6       lot of different processes in place in terms of  
7       how to manage the system.

8                       Part of the goal of this partnership  
9       is actually to try to figure out how to bring all  
10      of that together and do a little bit more  
11      comprehensive envisioning of what we actually  
12      want to do related to salmon and recovering  
13      goals.

14                      And then just lastly, I'll just  
15      mention the different -- and this is how we  
16      really comprise the stakeholder group that we're  
17      talking to right now. We've got four states in  
18      the system that have an involvement out there.  
19      We've got 13 different sovereign tribes that  
20      we're working with. And then we've got  
21      stakeholders which you'll hear a couple today.

22                      But we've got commercial and

1 recreational fishing interests, agricultural  
2 interests, irrigation, navigation in ports,  
3 utilities, environmental groups, recreation. So  
4 a lot of folks that have an interest in what goes  
5 in the Columbia Basin.

6           Jumping over to Slide 4, just a little  
7 bit about the Task Force itself. So we started  
8 working on developing some sort of stakeholder  
9 group and thinking about it back in 2012. So  
10 this has been a long time in development.

11           So we pulled together an assessment  
12 that was conducted by the Ruckelshaus Center out  
13 of Washington and then the Oregon Consensus  
14 Center out of Portland State University to  
15 actually go out and interview in excess of 200  
16 different stakeholders and participants in the  
17 Columbia Basin to talk to them about what we  
18 could do related to salmon recovery and goals in  
19 the system and moving that forward.

20           A couple of things that came out of  
21 that were just this need for a more coherent,  
22 integrated, and efficient means of addressing the

1 complexities of salmon recovery and really trying  
2 to pull things together, given all these  
3 different disparate plans and systems out there.  
4 But it also pointed to actually having someone  
5 actually convene a larger regional sovereign  
6 stakeholder group to work on that integration of  
7 those goals and pulling that together.

8 So we started establishing this last  
9 fall. Last January was our first meeting. We've  
10 got 28 members of the stakeholder task force from  
11 state, tribes, and the stakeholders.

12 So in terms of what we're trying to  
13 accomplish at a pretty general level -- I'm  
14 hitting slide 5 -- was taking a look at all the  
15 different recovery, planning, management efforts,  
16 goals, and plans that are out there and trying to  
17 pull some of that together.

18 So the task force idea isn't actually  
19 just go out and recreate salmon goals from a  
20 whole cloth, but to actually start to look at  
21 what we've developed across our ESA recovery  
22 plan, what we have in management plans -- either

1 through U.S. v. Oregon or other things -- and how  
2 we can actually start to pull that together and  
3 integrate those efforts and come up with a  
4 comprehensive set of goals that covers both ESA  
5 listed, non-ESA listed stocks, wild and hatchery  
6 in the system.

7           And so it really helps us to think  
8 about -- in terms of integrating those -- how can  
9 we use our resources more efficiently and  
10 effectively and by actually having a shared and  
11 common interest and a shared set of goals that  
12 we're working on? How do we actually measure  
13 success in the system?

14           So right now, there's different  
15 measures of success, both in terms of fish  
16 numbers, whether that's total fish number across  
17 Bonneville Dam or population-specific wild fish  
18 recovery targets under ESA recovery plans. I  
19 don't actually have a comprehensive idea of what  
20 we're actually trying to measure for success.

21           And then like I mentioned at the  
22 beginning, it's really just somewhat of a

1 balancing act. And how do we actually look at  
2 what people's interests are in the system, both  
3 from an ESA listed fish recovery where we can  
4 recover ESA listed fish? What's the possibility  
5 of getting the habitat back to a condition that  
6 can actually support the recovery of these wild  
7 stocks? And also, how we can effectively use  
8 hatchery management, either to rebuild and  
9 conserve these stocks but also provide mitigation  
10 of responsibilities and harvest opportunities in  
11 the system.

12 So those are just some of the -- I  
13 think the questions that we're actually trying to  
14 get at as we go through this goal setting process  
15 and really trying to take advantage of a lot of  
16 the good work that's already been done and  
17 actually how can we focus that and make better  
18 use of that work into the future.

19 I'm just jumping onto slide 6 to  
20 finish up my session. Just a graphic there to  
21 talk about where were sort of the reins that  
22 we're trying to look at. So if you look at this

1 graphic, it's just a generalized graphic with  
2 salmon status on the left, going from extinct  
3 where there are several stocks that have been  
4 extirpated from the system -- endangered and  
5 threatened, really the realm of the Endangered  
6 Species Act -- to getting to delisting and more  
7 healthy and harvestable levels.

8           And that's really that goal setting  
9 piece that we're talking about. And sort of the  
10 floor of our goal setting process for any given  
11 stock is delisting under the Endangered Species  
12 Act for those most limiting stocks whereas the  
13 high end is up into that healthy and harvestable,  
14 sustainable, pristine level.

15           And that's that range of abundance  
16 goals that we have to work with in between the  
17 ESA listed and non-ESA listed stocks so that  
18 those goals could vary for any given population  
19 or stocks. But on the whole, the broader  
20 endangered evolutionary significance, even if  
21 it's on the ESA listed stocks, are actually they  
22 can be delisted and recovered.

1                   And the other piece, the flexibility  
2                   that comes through and the partnership and  
3                   discussion is this time element and the fact that  
4                   we may be able to achieve different levels for  
5                   different stocks over various time scales. And  
6                   so that should be factored into the goals.

7                   In some cases like the mid-Columbia,  
8                   steelheads, that issue is actually closer to what  
9                   we'd consider a high delisted level or  
10                  approaching a delisting status. So there's more  
11                  that can be achieved in terms of viability in  
12                  that shorter time frame, where some of the other  
13                  stocks that are more highly endangered like a  
14                  Snake River sockeye where we have very few  
15                  individuals left, it's going to be decades before  
16                  we can actually get to a recovery level in that  
17                  stock.

18                  So that's just the sort of realm or  
19                  that universe, that green zone in the grass is  
20                  sort of the area that we're talking about in the  
21                  partnership in terms of a goal setting process  
22                  itself.

1                   So I'll stop there. I don't know,  
2 Heidi. You can certainly let me know if there  
3 are any questions now for what I've talked about  
4 so far, or if we want to jump into the  
5 presentation by Kristin and Urban.

6                   MS. LUKENS: Yes, so Barry, this is  
7 Jennifer. We're going to do some questions now  
8 for you, and we have Bob Gill. And I don't know.  
9 If you can't hear the question, I can repeat it  
10 for you.

11                  MR. THOM: Okay.

12                  MEMBER GILL: Thank you, Jennifer. So  
13 Barry, my question is this broad goal of trying  
14 to attain the historical potential for any  
15 species. Regardless of whether you're talking  
16 salmon or other, we're talking about a vastly  
17 different ecosystem than existed historically.

18                         And why is the goal not just for  
19 healthy and harvestable rather than try to attain  
20 something which, one, we don't know a whole heck  
21 of a lot about, and hence, the potential impact  
22 may be the wall of unintended consequences?

1           MR. THOM: Yes, so let me retry. I  
2 think to summarize the question, the question of  
3 the graphic is, why is the goal to get to  
4 historical potential versus being at a slightly  
5 lower level at healthy and harvestable given the  
6 changes of the ecosystem and the landscape that  
7 occurred, correct?

8           MS. LUKENS: Correct.

9           MR. THOM: And yes, so in terms of the  
10 graphic, so the goal -- just to be clear, the  
11 goal right now is not to get every stock to its  
12 historical potential. I think there is some  
13 potential in the system that there's probably  
14 some stocks that may be able to get there. But  
15 in most likelihood, almost all the stocks  
16 probably can't.

17                   And so that's a part of the analysis  
18 is trying to keep them at a healthy and  
19 harvestable level. But part of the component  
20 we're trying to work through is habitat capacity.  
21 And what is the most current capacity of the  
22 habitat to produce fish as well as what's the

1 potential capacity of the habitat to produce  
2 fish? And it's a very difficult thing to get at.  
3 That's something we're trying to tackle, both  
4 from a science center side as a habitat  
5 evaluation but also looking at the landscape out  
6 there.

7 So given the Columbia Basin, the one  
8 benefit we have is that the entire basin is in  
9 different states of development or recovery and  
10 repair. And so places like the Middle Fork of  
11 the Salmon River or something, the Salmon River  
12 area is actually wilderness and probably a high-  
13 quality habitat, a highly viable habitat whereas  
14 in other areas, downtown Portland, those  
15 tributaries are not.

16 And so that is actually factored into  
17 what is possible and what we're thinking about in  
18 what's possible as far as a habitat and factoring  
19 that into the goals of the process.

20 MEMBER GILL: Thank you, Barry. Well,  
21 I think my question -- and I agree with that  
22 approach. But I think my question is more

1 broadly philosophical.

2 Do we want to even consider trying to  
3 go back to a historical potential under the  
4 current set of conditions? It's kind of  
5 perfection is the enemy of good, but it's, are we  
6 going beyond where we ought to be even trying to  
7 get to?

8 Certainly, achieving the healthy and  
9 harvestable levels, that's a goal that we can  
10 consider. But I would question the desirability  
11 of even going back to reestablish ranges of  
12 species, reestablish perceived populations, et  
13 cetera. We haven't got the slightest idea of,  
14 one, how to do it, but two, the impact on the  
15 ecosystem that currently exists today.

16 So my question is more philosophical  
17 than practical and is why do we try to achieve  
18 that at all?

19 MR. THOM: Yes, that's an interesting  
20 question, Bob. And one of the things that I  
21 pointed out is actually what we've seen in the  
22 Columbia of actually exploring what some of the

1 possibilities are. And some of the possibilities  
2 for salmon production in the system actually  
3 relates to reintroduction of some salmon where  
4 they have been extirpated.

5 So as an example, Coho salmon above  
6 Bonneville Dam were extinct for several years.  
7 And mostly from the Columbia Basin tribes worked  
8 to reintroduce Coho salmon above Bonneville Dam  
9 and achieved remarkable success. Given that some  
10 of the factors that led to their extinction has  
11 been removed, there's actually the capacity to  
12 grow those fish and to actually get numbers of  
13 Coho salmon as well in the Clearwater-Nez Perce  
14 area as well as in the Yakima, in that area.

15 So I think it is worthwhile to  
16 actually explore and see what the possibilities  
17 are, but then also have that sort of realistic  
18 assessment of what is possible and not be too  
19 sort of pie in the sky in other words.

20 CHAIR BEIDEMAN: Rai?

21 MEMBER ESPINOZA: Yes, not to kind of  
22 beat the dead horse with a stick here. I kind of

1 agree with the -- is it just the term, historical  
2 potential? That's a shifting baseline. So to  
3 what point in history? Is it the point of  
4 history of the highest catch? Because the  
5 historical potential could actually be below  
6 healthy and harvestable. So it's one of these  
7 things that, like you said, philosophically, just  
8 the term is -- it doesn't really provide enough.

9 I understand what the purpose of it is  
10 on the slide but just from the perspective of --  
11 for example, from restoration side. On the  
12 restoration side, there's been many cases that  
13 you want to restore a prairie, and you've been  
14 trying to do it because 100 years ago was a  
15 prairie. But then if you check it out, 200 years  
16 ago, it was a forest.

17 And so the historical potential,  
18 basing it on the point of history really depends  
19 on what your perspective is of what history is.  
20 So that can really affect on the biology of every  
21 species that you want to do this. So again, this  
22 is just the semantics here maybe. But the term

1 "historical potential" could play a role into  
2 what healthy and harvestable means actually is my  
3 point. Thank you.

4 MR. THOM: Sorry, Rai. I didn't  
5 really hear that question very well. I don't  
6 know if someone could --

7 MS. LUKENS: I'll try to say what --  
8 this is Jennifer. He was questioning the use of  
9 historical potential, the definition of that, and  
10 that you could go back 100 years, and then in 200  
11 years, it would be a very different type of  
12 historical potential. It could be a different  
13 type of ecosystem. Many changes may have  
14 occurred.

15 So I think the point of Raimundo's  
16 question is, is how much are you using this  
17 definition or the kind of -- I don't want put  
18 words in your mouth. But is it more of a  
19 reference point is kind of what I heard when you  
20 were responding to Bob's question.

21 MEMBER ESPINOZA: Yes, it's just that.  
22 It's just the historical potential. The word

1 "historical" isn't the point. It's just --

2 MS. LUKENS: Yes, the word  
3 "historical" isn't the point because it shifts.  
4 So can you address that, Barry?

5 MR. THOM: Yes, so maybe based on the  
6 two questions, I just want to clarify. So in the  
7 graphic itself, the broad sense goals we are  
8 talking about are in that green zone on the  
9 graph. So we recognize there could be a set of  
10 goals from listed all the way up to historical  
11 potential. But the goal of this project is not  
12 to get all of these stocks to historical  
13 potential. The goal is to get in this green  
14 zone.

15 And the historical potential is a  
16 useful reference point to know what's out there.  
17 But we're also trying to look at actually how  
18 that capacity can be in the system. And so what  
19 ability is there to go from current habitat to  
20 some better habitat or what that other habitat  
21 actually really is? The base that we're looking  
22 at from a productivity side could actually set

1 the process goals as opposed to 100 years or 200  
2 years ago.

3 MS. LUKENS: Thanks, Barry. We have  
4 one more question.

5 CHAIR BEIDEMAN: Pam?

6 MEMBER YOCHER: This is Pam Yochem. I  
7 had a question on Slide number 5, the questions  
8 about salmon goals and plans. On a previous  
9 slide, you mentioned there were four Hs in the  
10 salmon landscape. And I noticed on Slide 5,  
11 there's harvest opportunities, habitat  
12 conditions, and optimizing hatcheries. But I  
13 don't see a question about goals or plans  
14 associated with hydro. And I wondered if that's  
15 something that's on the list.

16 MR. THOM: Yes, it is on the list, and  
17 I'm sorry, that's just that list. Yes, so all of  
18 the Hs are actually a part of the discussion as  
19 we move forward in terms of goals. We tend to  
20 think about hydro as part of the Federal Columbia  
21 River Power System but also recognizing the  
22 private non-federal hydro systems as well.

1 CHAIR BEIDEMAN: Liz?

2 MEMBER HAMILTON: I'm going to save  
3 for this for a MAFAC discussion, but I will  
4 address your points later from some of the -- I'm  
5 working on some of the pilot projects, the pilot  
6 species and how we address the historical versus  
7 where we want to be in the green. So I'll talk  
8 about that later.

9 MEMBER OKONIEWSKI: Thank you, Barry.  
10 This is Mike Okoniewski. I guess I'm a little  
11 bit -- I just have a question on if there's any  
12 focus or discussion on the tribal interest and  
13 the rights that have been granted, as far as how  
14 this Task Force dealt with that or just how it  
15 plays into the overall goals and plans that you  
16 guys are doing. Because I would suspect that  
17 they have some historical and treaty rights to at  
18 least think that they're going to get a  
19 substantial amount of fish that's returned at  
20 some point from what's been a much diminished  
21 resource for them.

22 So is this even on the table in this

1 study? Or I think there were tribal interests  
2 that were involved or were going to be  
3 originally, but I kind of lost track of that.

4 MR. THOM: So Mike, I think I'll try  
5 to answer your question and see if I can. So in  
6 terms of this tribal engagement, we have wanted  
7 to have a strong tribal engagement in the  
8 partnership.

9 So we do have representatives from  
10 both the tribal fish commissions. There's a  
11 tribal fish commission. There's an Upper Snake  
12 Commission and Upper Columbia United Tribes as  
13 well. So they all have representatives as well  
14 as the individual tribes like the Spokane Tribe  
15 at the table.

16 And I think that getting into this  
17 from the tribal perspective and having them  
18 participating in this process is that there's an  
19 interest in going and doing more and doing better  
20 than just minimum delisting under the ESA because  
21 they don't feel that that is going to satisfy  
22 them.

1           And so prior to participating in this  
2 process, there's a better chance that we're going  
3 to actually get above that level and a have a  
4 better chance of obtaining a more robust and a  
5 healthy harvestable, and harvestable from a broad  
6 sense, both from the large production hatchery  
7 fish in the system as well as the more  
8 sustainable wild side.

9           I think they're happy to engage, and I  
10 think we've seen just over the past couple of  
11 meetings, especially with the pilot that Liz just  
12 mentioned. When we get into the details, we've  
13 actually really started with much greater tribal  
14 engagement and buying into the process more.

15           CHAIR BEIDEMAN: This is Terri. I  
16 have a question. I haven't read the recovery  
17 plans for all the salmon species. But how many  
18 of the delisting requirements are something that  
19 has nothing to do with really the population?

20           I know in some -- my more expertise  
21 is, like, sea turtles. They have a certain  
22 amount of nesting beach availability that's

1 required under the control of the government in  
2 order to delist. So I was curious. My ignorance  
3 on that, I'm sorry. But I wondered how many of  
4 them are things that are not achievable by actual  
5 the population status.

6 MR. THOM: I'll try to get into that.  
7 So yes, there probably is a slight difference  
8 between, I think, some of the details. So the  
9 recovery goals, there's two pieces. I think one  
10 of the recovery goals that people tend to think  
11 about is the population status and the population  
12 liability.

13 We tend to mostly talk about  
14 abundance, but it's also spatial structure of  
15 those populations across the landscape, the  
16 diversity of those populations across the  
17 landscape that play into those factors.

18 In addition, there's the listing  
19 factors that need to be evaluated. And so one of  
20 the things we face kind of on the same page is  
21 the adequacy of existing regulatory mechanisms  
22 tends to be the -- so first off, that tends to be

1 -- just to use a little with the Oregon coast  
2 that I'm more familiar with -- where in that  
3 case, we have a liability and sort of abundance  
4 of those populations and official structuring to  
5 actually improving and by reaching rather close  
6 to a delisting abundance status on the Oregon  
7 coast.

8 But right now, we don't have any  
9 information on the habitat side or on the  
10 existing -- the existing regulatory mechanisms  
11 will be able to maintain the habitat over time to  
12 maintain that liability to get that crucial  
13 initiative. So that seems to be from the ESA  
14 side. We're just making sure that is federal  
15 land management or forestry management that are  
16 adequate to support this.

17 CHAIR BEIDEMAN: Any other questions  
18 around the table? I see none. Thank you for  
19 your presentation and onto Kristin.

20 MS. MEIRA: Okay. Can you all hear me  
21 okay? All right, great. Well, first, I just  
22 want to thank NOAA leadership and all of you here

1 on -- is it MOFAC or MAFAC?

2 MS. LUKENS: We say MAFAC.

3 MS. MEIRA: MAFAC? Okay. Just want  
4 to thank you all for supporting what we're doing  
5 out in the northwest, this Columbia Basin  
6 Partnership Task Force.

7 It was mentioned earlier this morning  
8 that salmon recovery in the Pacific Northwest is  
9 quite the rabbit hole to go down as far as an  
10 issue. It's something we've all been working on  
11 for decades and decades. There's lots of  
12 litigation around it.

13 It's been really refreshing to be a  
14 part of this Task Force. I've seen people across  
15 the table who maybe you wouldn't normally see --  
16 unless you're in a courtroom, on the other side  
17 of the courtroom -- all coming together to try to  
18 work constructively on long-term recovery goals.  
19 It's, I think, long overdue. And it's, again,  
20 been a really wonderful venue, and we're hoping  
21 to have some concrete things to report out in the  
22 next couple of years.

1           Barry talked about how there's lots of  
2 different stakeholders at the table, and that's  
3 reflective of all the different ways that we rely  
4 on the Columbia River and its tributaries in the  
5 Pacific Northwest. You're going to hear from  
6 Urban in a little bit about how they rely on  
7 water in their area. Liz, of course, I'm sure,  
8 has told you a lot about the sport fishery and  
9 the way her members rely on the Columbia River to  
10 produce the fish that they need.

11           I'm here to talk to you a bit about  
12 Ports and Navigation. That's the group that I  
13 represent. So we recognize that we're one of  
14 many voices in the Columbia River Basin, but we  
15 think we're important too and we have a role to  
16 play.

17           So Barry showed you the picture  
18 before, and I know we've got some maps up on the  
19 wall showing the sheer size of the Columbia  
20 Basin. When it comes to commercial cargo  
21 navigation on our rivers, it's actually in a  
22 smaller area. It covers just this section here,

1 draining cargo out of primarily Washington,  
2 Oregon, and Idaho.

3 And so the Columbia Basin, of course,  
4 goes up into Canada, and it covers many, many  
5 states. But the commercial part of navigation is  
6 just on the Columbia and Snake and goes as far as  
7 Lewiston, Idaho. So I'm going to orient you a  
8 little bit to what we do on the rivers when it  
9 comes to moving products.

10 We essentially have a two-part system.  
11 We have the part where ocean-going vessels are  
12 moving about and filling up with U.S. products to  
13 take them overseas. And that's what you see  
14 here, roughly, 105 river miles long from the  
15 mouth of the Columbia where it empties out into  
16 the Pacific Ocean inland, all the way to  
17 Portland, Oregon. And that's Vancouver,  
18 Washington, USA across the river there.

19 And this is considered a major cargo  
20 gateway for the United States, so over 50 million  
21 tons of cargo last year valued at over 24 billion  
22 dollars. And we think that jobs estimate is

1 actually a little low. That's an old figure, but  
2 at least 40,000 jobs directly tied to just the  
3 cargo and the navigation that's taking place on  
4 the Lower River, even more indirect and induced  
5 and then even more once you go upriver.

6 So connected to that deep draft part  
7 of the system, you have the inland barging part  
8 of the system. So once you get past Portland,  
9 then the channel becomes shallower. It's only 14  
10 feet deep. This is where our barge tows are  
11 operating, and a typical barge tow is a tow boat  
12 that is pushing four barges latched to the front  
13 of it.

14 And so that goes another 365 miles  
15 inland, again, all the way to Lewiston, Idaho.  
16 They refer to themselves as the U.S.'s most  
17 farthest inland seaport. And then along the way,  
18 you have eight dams. And at each dam, there is  
19 one navigation lock. And I have a picture of --  
20 this is the downstream gate at the Dalles Dam at  
21 the navigation lock there.

22 We have one lock at each location. We

1 have one chance to get it right, and these are  
2 the highest lift locks in the United States. If  
3 you haven't experienced them, we invite you to  
4 come out and take a tour. They are quite a feat  
5 of engineering, and it takes a lot to keep them  
6 up and operating.

7           Essentially, if you're familiar at all  
8 with the Mississippi River system and the way the  
9 barges there drain product out and take them down  
10 to the Lower Miss for eventual export, we're kind  
11 of similar in the way that we operate. And so  
12 you can see here, four dams on the Columbia River  
13 and then linking up with the Snake River. This  
14 is up into Washington State and then concluding  
15 at Lewiston, Idaho.

16           And just a quick bullet on the barge  
17 system. It is the most efficient way to move  
18 cargo, especially bulk cargo like wheat and other  
19 grains. It's the best way to move that cargo  
20 because you can move 538 trucks' worth of product  
21 for every barge tow.

22           And so why is this river system

1 important when it comes commercial navigation?  
2 First and foremost, we're known for grain  
3 exports. This is the top wheat export gateway in  
4 the United States. We're now number two for soy  
5 as well. Those products are -- the wheat is  
6 arriving -- roughly, half of it comes by barge.  
7 The other half comes from the upper Midwest by  
8 unit trains. And the soybeans, virtually all of  
9 that is coming by unit trains from the Midwest  
10 for eventual export out of our river system.

11 We're also tops on the West Coast for  
12 mineral bulks. This is a product like pot ash  
13 and soda ash. We're a huge gateway for cars, a  
14 lot of auto imports and now some exports as well.  
15 Tops on the West Coast for wood exports. That's  
16 a lot of whole logs but also lumber.

17 And so I'll just wrap up about talking  
18 about why, again, we're at the table for this  
19 Columbia Basin Partnership. This can be a  
20 challenging area when it comes to doing work in  
21 the water, adjacent to the water. It can be a  
22 tough place to be a port and try to get things

1 going for your community.

2 We know that our ports view themselves  
3 as stewards of their waterfront. Everything that  
4 they do, of course, has to be permitted. But  
5 they're doing other good works as well that are  
6 not necessarily required as mitigation. And it's  
7 hard to see, but hopefully you get the picture.  
8 This is just the in-water work that the Port of  
9 Portland is doing.

10 If you were to look at any of our  
11 ports on the Columbia Snake River system, they  
12 are all doing good works in and around the river.  
13 And what they want is certainty. They want the  
14 opportunity to, first of all, have some input in  
15 these long-term goals but then have some  
16 recognizable targets that we are all pulling  
17 together to shoot for. We have really great  
18 things that can happen in our region when people  
19 pull together.

20 I included one item there, and it's  
21 just a policy issue for now until we get some  
22 actual funding behind it. But out in our area,

1 we recognize that the Columbia River Basin was  
2 the only major watershed in the U.S. that did not  
3 have dedicated funding to get after known toxic  
4 hotspots. So you had it for the Chesapeake. You  
5 had for lots of other areas. We didn't have it  
6 in the Northwest, not for the Columbia River  
7 Basin.

8 So a number of folks got to together  
9 who maybe normally wouldn't, and that's our  
10 tribal partners, ports, folks doing work down in  
11 the estuary. We all pulled together to tell  
12 Congress that we wanted dedicated funding out in  
13 our region to be able to get after these known  
14 toxic hotspots. And so we finally got this  
15 program authorized last year. Now, we need the  
16 appropriations. That's another story. We need  
17 the actual money now.

18 But this is something where,  
19 basically, business and environmental groups and  
20 tribes and all the folks who rely on the river  
21 and want it to be clean for a variety of reasons  
22 all got together and used one voice and really

1 made an impact here in D.C. to try to get  
2 something going.

3 That's what we're hoping will result  
4 from the Columbia Basin Partnership is some  
5 overarching goals for our listed species, things  
6 that we can all work toward together. With that,  
7 I'll wrap up and I'll give it to Urban, unless  
8 you want to do questions now, or --

9 CHAIR BEIDEMAN: Yes.

10 MS. MEIRA: Okay.

11 MR. OLIVER: Show how far down I'm  
12 still on the Pacific Northwest salmon learning  
13 curve by asking a question. But the eight locks,  
14 dams, when were those put in and who owns and  
15 operates those?

16 MS. MEIRA: Sure. So the U.S. Army  
17 Corps of Engineers constructed them. So they  
18 built the dams. They built the navigation locks,  
19 and now, they operate them as well. When it  
20 comes to the power side of things, the power that  
21 is generated at the dams is then marketed by the  
22 Bonneville Power Administration.

1           But the locks, that's all the Corps of  
2 Engineers, and so that's annual appropriations  
3 now to maintain them. And they were built from  
4 the 1930s until the last one was finished in -- I  
5 believe it was 1975. And so no new ones are  
6 being proposed. Everything is built that needs  
7 to be built. We're now just in an operations and  
8 maintenance scenario.

9           CHAIR BEIDEMAN: Julie?

10           MEMBER BONNEY: So basically, the  
11 committee is under our authority for FACA. And I  
12 noticed you said that you're hoping for regional  
13 consensus. And because you're going to report to  
14 us and then we'll send on our recommendations to  
15 the Secretary of Commerce, are you only a  
16 consensus-based decision-making body, or could  
17 there be a possibility that you would make a  
18 recommendation to us that's not consensus-based?

19           MS. MEIRA: So we have some wonderful  
20 facilitators who've been working with us from the  
21 beginning helping us get to consensus so far  
22 every step of the way. I do remember at the

1       outset, though, they said that there is a  
2       possibility that we won't achieve consensus on  
3       particular items. It's possible we won't achieve  
4       consensus in the final product and that that is  
5       fine. That will all be noted before it is pushed  
6       up to MAFAC.

7                   I'm going to stop there and defer to  
8       Heidi and Jennifer and folks on the phone, if  
9       they have a different understanding. But I know  
10      we're driving toward consensus, but I don't  
11      believe we are required to achieve it to have a  
12      final product to you.

13                   MS. LOVETT: Hi, this is Heidi. I  
14      would say that how Kristin described it is  
15      accurate. And I think, if I may speak for you  
16      all, there's a lot of trust building that's been  
17      going on. And as Kristin noted, she's really  
18      happy to see all the different players at the  
19      table.

20                   So I think there's a hope that what  
21      this group brings forward might be shared with  
22      other agencies or entities that might have

1 different responsibilities. It's not who they're  
2 targeting. It's targeted towards MAFAC and NOAA.  
3 But there's the hope that this will build other  
4 bridges, if that's, I think, a good way to say  
5 it.

6 Would you agree?

7 MS. MEIRA: Absolutely.

8 MS. LOVETT: Okay.

9 CHAIR BEIDEMAN: No other questions?

10 Then we'll move along to Urban Eberhart, the  
11 Secretary Manager -- how do you say that --  
12 Kittitas?

13 MR. EBERHART: Kittitas.

14 CHAIR BEIDEMAN: Kittitas Reclamation  
15 District.

16 MR. EBERHART: Thank you, Terri. How  
17 does that work? Can you do that since you've  
18 already been through it? Good grief.

19 MS. MEIRA: It fell out.

20 MR. EBERHART: It did fall out. All  
21 right, details.

22 So I'm Urban Eberhart. And thank you,

1 everybody, for letting us have the time to talk  
2 today. I am the manager of the Kittitas  
3 Reclamation District. That's in Ellensburg,  
4 Washington and right in the center of the state.

5 I'm also a farmer. I grow apples and  
6 pears and some hay. The apples are -- now, we've  
7 grafted the trees over to honey crisp. They're  
8 more valuable. So honey crisp apples, if you see  
9 those. Also, we have some galas and some red  
10 Anjou pears and Bosc pears that we grow right  
11 there in Central Washington.

12 So if you think of Washington State,  
13 you think, oh, that's the evergreen state and  
14 it's all green. But really, there's Seattle.  
15 There's the Cascade Mountain Range, and then  
16 there's a rain shadow. And we actually are  
17 desert where we are as we transition over.

18 I was talking to Mike earlier, and in  
19 1969, he was at the history department at Central  
20 Washington University in Ellensburg. And I was  
21 telling him my dad was teaching there and also  
22 Secretary Mattis was in the history department at

1 the same time at Central.

2 Liz is on our Columbia Basin  
3 Partnership team with us, and Barry talked about  
4 the 23 stocks in the Columbia River system and  
5 showed the map of all the states that that  
6 covers. It's an expansive area, and I'm going to  
7 focus just a little bit -- where's that pointer -  
8 - on this piece of Washington State.

9 So here's Washington State way over  
10 there in the northwest corner of the country, and  
11 there's Seattle right there. And our Yakima  
12 Basin is a tributary to the Columbia River system  
13 obviously, so they're top of the Cascade. If  
14 you're right on the ridge, the water goes towards  
15 Seattle. If you're going this way, it goes all  
16 the way down to the Tri-Cities near the Hanford  
17 Reservation which is at the bottom of the basin  
18 and then hits the Columbia River and then heads  
19 on out.

20 The Yakima Basin is a highly developed  
21 agricultural area now. The United States came  
22 in, in the early 1900s, and designed. And in

1 1905, the state granted all of the un-  
2 appropriated water in the basin to the United  
3 States government or all the water that wasn't  
4 already being called on in a prior appropriations  
5 way which is really the First in Time, First in  
6 Right.

7 And they built five reservoirs in that  
8 basin. And those five reservoirs, when they were  
9 constructed, it just was not a priority for the  
10 United States to include fish passage at  
11 reservoirs. They knew about it, but it was a  
12 conscious decision not to do that.

13 Therefore, we have blocked a  
14 significant amount of habitat in our basins. So  
15 when Barry was mentioning earlier about the  
16 opportunities that you have to reestablish  
17 extirpated areas, it is where we can go into  
18 areas like this and find ways to open up a  
19 habitat that has been blocked.

20 So in this basin, again, where the  
21 agriculture is a very vibrant agricultural  
22 economy. Seventy percent of the hops in the

1 United States are grown right there in the Yakima  
2 Valley, a lot of wine grapes that are produced  
3 there, a lot of apples, as mentioned, a lot of  
4 pears, different types of produce.

5 So it's producing about four and a  
6 half to five billion dollars annually of the  
7 agriculture products. Or as it says on the  
8 slide, the historic contribution to the salmon  
9 runs in the Columbia River system -- before all  
10 of the development that occurred -- was second  
11 only to the Snake River in production.

12 So we had, historically, been  
13 producing about 800,000 fish annually into the  
14 Columbia system, and that went down to -- all  
15 combined species, like, within the last 20 years  
16 -- to about 9,000 fish. And I'm going to stick  
17 with the map.

18 So what we're doing in the Yakima  
19 Basin is we've had this longstanding  
20 adjudication, which adjudication is where the  
21 State of Washington decided that there's  
22 something going on in the Yakima. We had a

1 drought in 1977 that was really a surprise to  
2 everybody because the whole Columbia River system  
3 was operated on a flood control basis for about  
4 30 years.

5 From about 1945 until the mid-70s,  
6 nobody even knew what a drought was. It was if  
7 people were talking about building storage, they  
8 were talking about it for flood control, not for  
9 water supply. And all of a sudden, that  
10 switched.

11 And that started getting the interest  
12 of the state, and they said, well, okay, we've  
13 got to see who's got what rights. And then after  
14 the 1977 drought, that really switched things.  
15 It was really about the time that things changed  
16 to multiple drought cycles.

17 What we did in '77 was then start the  
18 discussions with the United States, again, passed  
19 a bill in Congress, the Yakima River Basin Water  
20 Enhancement project. And in that legislation, it  
21 was, again, to take a look at, well, what's the  
22 problem here?

1           And as that was developing, we started  
2           implementing fish passage because the fish runs  
3           were so bad. We started putting in updated fish  
4           passage at the irrigation diversions, updated  
5           fish passage at these little smaller diversions.  
6           So that was going on through the 1980s.

7           In 1994, there was a major  
8           conservation bill that was passed at the federal  
9           level. We started implementing conservation.  
10          And at the same time, all sides were fighting it  
11          out.

12          So as Kristin said -- it was true in  
13          our instance -- if we were talking with members  
14          of the environmental community or the tribal  
15          governments or the irrigators or each other, if  
16          anybody was talking about anything, it was  
17          usually with a couple of attorneys present and it  
18          was in state court and it was in federal court.  
19          And we went through 40 years of trying to define  
20          what -- 35 years of what everybody had by arguing  
21          through the court system.

22          And finally, all of us on all sides

1 got together and said this isn't working. We're  
2 seeing what we all have, but we're not really  
3 solving the problem. The problem is still here.  
4 And we actually put together a group and started  
5 meeting and coming up with solutions and  
6 developing relationships.

7 Relationships came up earlier on how  
8 can we really solve this problem and set this  
9 ecosystem, this whole region up for survival into  
10 the next couple of centuries? And how will fish  
11 survive? How will wildlife survive? But also,  
12 how will people survive? How will agriculture  
13 survive?

14 And consequently, as we were going all  
15 through that, we didn't come up with a way to get  
16 everybody everything they wanted. But we were  
17 coming up with ways that everybody could survive  
18 as we move forward.

19 So we came up with, well, things are  
20 changing pretty rapidly. Things that really  
21 started continuing to motivate us was that when  
22 we first had one drought and then pretty soon we

1 had two droughts, two in a row, then they were  
2 coming back to back. We had three year in a row.  
3 Fish were just getting hammered. The economy was  
4 really getting blasted.

5 And we started looking at all these  
6 different models and saw that we were quite  
7 vulnerable because we have a dependency on a  
8 snowpack that's at about 3,000 feet in elevation  
9 which is pretty low elevation snow. When that  
10 snow comes, it comes almost as rain anyway. So  
11 if we see a little uptake in temperature of about  
12 one or one and a half degrees, where most of our  
13 snowpack storage is, it comes as rain instead of  
14 snow.

15 What happens then is all that water  
16 flashes off in the winter months and you don't  
17 have anything later in the season. That's bad  
18 news for agriculture. It's bad news for  
19 municipalities, and it's terrible news for fish.

20 In 2015, nobody had seen anything like  
21 it in the state of Washington. So there's the  
22 Olympic Mountain Range. There's the Cascade

1 Mountain Range. And what we got in that winter  
2 was normal precipitation. We had a normal  
3 rainfall precipitation total through the winter  
4 months, and we had one of the worst summers that  
5 we'd ever had as it relates to water supply  
6 because it came as rain, it didn't come as snow.

7 So we were seeing tributaries to the  
8 Yakima system that were flowing in the month of  
9 April and May, which usually, those would be  
10 pretty high months. You'd have a lot of snow  
11 melt that would be flowing out of there. They  
12 were flowing at levels that they normally  
13 would've been flowing in October before the fall  
14 rains started.

15 And what that was doing was drying up  
16 creeks. We were seeing pools of several  
17 steelhead -- several listed in the Columbia  
18 system. Just three different life stages of  
19 water going down in the pools, predators getting  
20 in as the water was going subsurface.

21 So getting back to this discussion.  
22 So fighting for decades. The group gets together

1 and saying, this isn't working. That started in  
2 2009. We started figuring out how to solve the  
3 problem, came up with a plan. Actually, came up  
4 with the first basin-wide integrated plan in the  
5 United States that's gotten to this level. But  
6 we created the relationship.

7 So when that 2015 drought came along,  
8 we found ways that we could pull water out of the  
9 irrigation canals that were intersecting  
10 tributaries that had historically been separate  
11 and put the water into those tributaries, pass it  
12 through. That water then saved countless species  
13 and then went back to the river and was later  
14 used by its downstream users. So we just  
15 borrowed it for a little while.

16 But what we're doing in this Yakima  
17 project is taking former adversaries, creating  
18 partnerships, friendships -- truly friendships --  
19 and finding ways to utilize the existing  
20 infrastructure -- in our instance, major  
21 infrastructure -- that was constructed for --  
22 that was just for irrigation.

1           We're using it to adapt to the lack of  
2 snowpack to keep the ecosystem alive. Then as  
3 part of that, then we're finding ways where we're  
4 actually going to be running the canal systems  
5 that were created for irrigation. Running the  
6 systems later in the year, times when they'd  
7 historically been off and carrying that water,  
8 that flashy water that is no longer snowpack, out  
9 away -- far away from the river and soaking it  
10 into the ground and have those molecules go down  
11 through the ground and work their way back to the  
12 river. So implementing groundwater storage.  
13 We're also creating additional surface water  
14 storage.

15           So back through the '70s and '80s, if  
16 you talked about building new dams, it was a bad  
17 thing. Dams are bad. You'll never build another  
18 dam in the United States. Well, that's not the  
19 case anymore. We actually, in our instance, have  
20 support from major environmental groups and our  
21 whole team that we have to build dams because  
22 we're building dams for fish to make up for the

1 lack of snowpack and those runoff events.

2           The other thing we're actually doing  
3 is building fish passage at all of the  
4 reservoirs. So we have five major reservoirs.  
5 This Cle Elum reservoir is one of those that it's  
6 not like in the main stem of the Columbia where  
7 that's a run of the river dam where you have  
8 pretty constant levels. In this reservoir, it's  
9 moving up and down annually, like, by 65 feet in  
10 elevation.

11           And there was a sockeye run that was  
12 up here. And when that dam went in, in the early  
13 1900s, that sockeye population got wiped out.  
14 And that was really important to our partners,  
15 the Yakima Nation. That sockeye population was  
16 gone. It didn't even come back to the Yakima  
17 anymore.

18           They were able to make a deal, the  
19 Yakimas were, with the Okanagans up in Canada.  
20 And they were able to get some of the sockeye  
21 from that run, haul them up, and then start  
22 reestablishing them into the Columbia River -- or

1 into the Cle Elum River system up above that dam  
2 that didn't have any passage on it.

3 About three, four years ago, we had  
4 the very first born and raised sockeye in the  
5 Yakima Basin that went out to the ocean and came  
6 back, back up into that system. There was quite  
7 a ceremony, but it had been a century since that  
8 had occurred.

9 In this instance, we're now  
10 constructing. It's about 130-million-dollar  
11 facility to get fish out of that reservoir. It's  
12 the first of its kind design anywhere in the  
13 world that we have found which is a multilevel  
14 intake facility helix model design that will have  
15 pipes going out into that reservoir with the  
16 lowest elevation being the longest one out and  
17 then they'd be stacked up on top of each other.

18 If you imagine driving up into an  
19 airport parking garage, you go up that helix  
20 design circle to get higher from floor to floor.  
21 It's the same thing. We're digging about 130-  
22 foot hole in the ground right at the dam, and

1 it's about 120 feet across and 100 feet the other  
2 direction. And they put that airport parking  
3 garage right down inside of that.

4 Those pipes come out of that reservoir  
5 at different elevations. Whatever the elevation  
6 of the water is in the lake, then that's where  
7 the gate will be opened. The fish will go into  
8 that. They go into that helix, and they work it  
9 down, ride it down, and then out they go. And  
10 they end up at the Cle Elum River down below.  
11 That will get them out of the reservoir.

12 We did a ten percent scale model,  
13 built it in the Technical Service Center building  
14 in Denver, Colorado and ran the little brook  
15 trout through a little computer and fished  
16 through. And at first, it didn't work. It was  
17 spinning them around like they were in the spin  
18 cycle in the washing machine. And so I had to  
19 change the shape a little bit to slow it down.  
20 And they oriented themselves, tail first, going  
21 down backwards like they do, and worked their way  
22 out.

1           So that facility is under construction  
2 right now. We're working on both a trap and haul  
3 system to get them back up in there. And then  
4 also, we've been doing some really interesting  
5 research and some testing of that whoosh system  
6 which is a pressurized system.

7           We're actually using apple sorting  
8 technology to test getting the fish come into a  
9 box. They get flipped over into whatever the  
10 right size tube is. And then there's a little  
11 spray inside the tube, and you put positive  
12 pressure behind them. And you can whoosh -- for  
13 lack of a better word -- those fish 1,500 feet in  
14 distance, 150 feet in elevation in 40 seconds up  
15 over that dam and into that reservoir. There's a  
16 little barge out there.

17           It's really promising, but we've got  
18 more work to do on it. So we're setting up for  
19 trap and haul. But as we're building this  
20 facility for trap and haul, we're also making  
21 sure that it can accommodate that whoosh  
22 technology, if we can get that perfected. And

1 then there'll be all kinds of applications  
2 throughout the world if that is successful.

3 Another thing that we've done is -- as  
4 I had mentioned about those tributaries -- we're  
5 dealing with flow to get the little alluvial  
6 fans. So you can picture the water coming out of  
7 the mountains, and usually, that's pretty --  
8 coming down out of this basalt primarily. The  
9 water is flowing pretty well, and it goes down  
10 into these valleys and gets into these alluvial  
11 fans. And if there's not enough flow, it'll go  
12 subsurface and then go out that way.

13 We're working on ways to keep that  
14 water flowing at the surface. But then in the  
15 late 1800s, even before the United States came in  
16 and made the big dams, the first settlers would  
17 come in and build smaller dams.

18 So we have a really good habitat that  
19 is blocked by these smaller diversion dams.  
20 There's a little creek. Recently, Manastash  
21 Creek was one of them where we'd spent about 25  
22 million dollars over the last decade on

1 consolidating diversions and putting in fish  
2 passage and finding ways to cooperatively work  
3 with the landowners so that they could get better  
4 irrigation systems, and at the same time, getting  
5 barriers out.

6 This last Thanksgiving, so almost  
7 exactly 12 months ago, we got this last barrier  
8 finally out of this Manastash system. There's  
9 about 28 miles of mid-Columbia steelhead habitat  
10 up above it. We got the barrier out and then did  
11 a rough-in channel and got it all fixed up and  
12 ready to go. That was Thanksgiving of last year.

13 By April of this year, we got the very  
14 first mid-Columbia steelhead in a century, which  
15 we tagged her down below, followed her, watched  
16 her, watched her. She headed on up there, then  
17 pretty soon, she was followed by two other  
18 adults. And then, much to our amazement, about  
19 five little juveniles headed up that way too.  
20 And then there were a couple more adults that  
21 headed up there.

22 So what we did in that instance, so we

1 had been focusing on that little spot, that  
2 little tributary. We reestablished in that case  
3 a lot of habitat, good high mountain cool habitat  
4 for mid-Columbia steelhead that they had been  
5 blocked from for a century.

6 As Barry said, that's how we're going  
7 to be meeting these goals. It's one at a time.  
8 You go in there. You open it up. We're working  
9 on the passage on this dam. We'll be putting  
10 passage into all five of the systems up there  
11 that we have the big reservoirs. But we're also  
12 working on ways to get up into these canyons that  
13 have a lot of production potential but they've  
14 just been blocked.

15 But the way that we're making it work  
16 is we're not going in and saying with a heavy  
17 hand, you can't do that anymore because you're  
18 killing those fish and so stop making your money,  
19 you bad farmer. We're not doing that.

20 We're saying, how can we work  
21 together, come up with a way to get your  
22 irrigation system better? You get a pressurized

1 system. You don't to have to use a pump. We'll  
2 put in some pipes for you. We'll help you put in  
3 sprinklers. And then instead of having just this  
4 blocked tributary, we'll have a place for that  
5 fish to swim up the hill to go.

6 So Barry had mentioned about the Bill  
7 Ruckelshaus Center. You may recall who Bill  
8 Ruckelshaus is. He was the first, actually, head  
9 of the Environmental Protection Agency, the first  
10 EPA. He has a collaborative center in the state  
11 of Washington.

12 But it's really -- this model that I  
13 was talking about is related to -- the  
14 Ruckelshaus Center is also continuing to promote,  
15 which is the way that we solve these major  
16 ecosystem problems is figuring out, how do we get  
17 everybody together and come up with a way where  
18 everybody survives and it's in everybody's best  
19 interest to get it done?

20 So it's working in the Yakima. We're  
21 now overlaying. As Kristin said, we're starting  
22 to overlay that into the Columbia Basin

1 Partnership. There's a lot of energy there in  
2 the Columbia Basin Partnership.

3 I also have a high confidence that  
4 we'll be able to come up with an agreed upon  
5 recommendation for your all's consideration. And  
6 one of the things we're looking at, in the mid-  
7 Columbia steelhead population, one of the  
8 questions was about dealing with the Native  
9 American community.

10 In our instance, the Yakima Nation,  
11 Liz is working on a different prototype team.  
12 I'm working on the mid-Columbia steelhead team.  
13 And that's in the Yakima Basin, but it's also in  
14 other tributaries to the Columbia River system.  
15 And we're working very closely with the experts  
16 at the Yakima Nation, also the Umatillas, which  
17 is another tribe in Oregon, actually, in the same  
18 area.

19 So we're bringing in all the expertise  
20 we can to get the information that we can, and  
21 we're not looking at delisting numbers. And  
22 obviously, we're not thinking we're going to get

1 to historic either. But we are looking at ways  
2 to come up with sustainable, harvestable amounts  
3 of fish in a way that the water is available for  
4 municipalities, industry, agriculture, and fish.

5 So before I go on for four hours, I'm  
6 ready for questions.

7 MS. LUKENS: I'm just going to pop  
8 that slide up. I thought that was good. You  
9 skipped over it.

10 MR. EBERHART: I know.

11 MS. LUKENS: That's okay. Not that  
12 you have to talk to it, but just some of the  
13 things that you --

14 (Simultaneous speaking.)

15 MR. EBERHART: Okay. This is the  
16 Kittitas Valley. That's where Interstate 82  
17 leaves the Kittitas Valley right there. I live  
18 right over there. This is clear over on the  
19 north side of the valley. This is Mark  
20 Charlton's farm. These are actually sunflowers.

21 This is an example where we're putting  
22 in sprinklers. These historically have been with

1 the ditches. And again, I didn't touch on this,  
2 but those five storage reservoirs that the United  
3 States put in, those five reservoirs hold one  
4 million acre feet of water, but we're using two  
5 and a half million acre feet annually. And the  
6 difference is the snowpack. If the snowpack  
7 doesn't materialize, then everything crashes.

8           So we are restoring the ecosystem.  
9 We're becoming more resilient to that lack of  
10 snowpack. Whatever you want to call it, whatever  
11 the right words are of the year or of the  
12 administration, but we're working on coming up  
13 with a reliable water supply.

14           Oh, and we have the hearing in the  
15 U.S. House Oceans and whatever it is Committee  
16 coming up on Thursday. So we've been working  
17 closely with both the U.S. Senate and the U.S.  
18 House on actually taking that initial legislation  
19 that I talked about in 1979. It was amended in  
20 1994. And now, we're mapping this whole process  
21 out over the next 30 years in ten-year  
22 increments.

1           But again, what we're doing there is  
2 important for what we're doing here in the  
3 Columbia Basin Partnership which is Washington,  
4 Oregon, Idaho, Montana, a little bit of Wyoming,  
5 a little bit of Nevada. But it's also relevant  
6 in all 17 western states because the issues are  
7 the same we are seeing.

8           In that 2015 thing that I was  
9 explaining in the Olympic Mountain Range and the  
10 Cascade Mountain Range occurred throughout the  
11 western United States. We've got to deal with  
12 this because there are multiple models that  
13 clearly show that that's really where we're  
14 headed.

15           And really, all we have to do is look  
16 at that 30 years, '45 to '75, and then we start  
17 seeing just how real gradually things start  
18 changing. So we're really doing this because not  
19 for something that we think is going to happen in  
20 the future. It's for what's happening right now.

21           Yes, sir?

22           MEMBER MOORE: Yes, thank you. That

1 was really interesting. Could you go back one  
2 slide --

3 MR. EBERHART: Yes.

4 MEMBER MOORE: -- or whatever that  
5 slide was?

6 MR. EBERHART: That one?

7 MEMBER MOORE: No.

8 MR. EBERHART: That one?

9 MEMBER MOORE: Yes, so is the  
10 adaptation very capital intensive?

11 MR. EBERHART: Yes.

12 MEMBER MOORE: I mean, I see -- right,  
13 I see three to five billion dollars in projects.  
14 So what you were just describing in that upper  
15 picture is one of a number of projects you're  
16 working on?

17 MR. EBERHART: Yes. Again, so on the  
18 agriculture side, we're producing four and a half  
19 to five billion dollars annually. If you throw  
20 in all the recreation, all the industry, and all  
21 that other stuff, it's probably really closer to  
22 13 billion dollars annually.

1                   This three to five billion is spread  
2 out. That's our estimate over about 30 years to  
3 do all of the things that we need to do. I had  
4 mentioned that we had historically contributed  
5 800,000 fish to the Columbia system. It had gone  
6 down to less than 9,000, all species.

7                   We want to, pretty rapidly, get that  
8 up to about 300,000 fish. And again, the way  
9 we're going to do that is reopen the habitat that  
10 has been blocked and get those fish out of that  
11 continually increasingly hot water at those lower  
12 elevations in the summer and get them up into  
13 that cold mountain water where they can hang out  
14 and thrive and do what they need to do to make it  
15 through those hot times and get back out. So  
16 yes, very expensive.

17                   MEMBER MOORE: So I guess the question  
18 is, where is that money coming from? And if we  
19 ever did see another infrastructure spending bill  
20 from the government, could you find your way into  
21 that?

22                   MR. EBERHART: Yes. So thank you for

1 that actually. So where the money is coming from  
2 is, first of all, this is how people, fish,  
3 wildlife, industry, everybody survives. This is  
4 nonpartisan.

5 So at the state of Washington,  
6 actually, in 2013, we went through the state  
7 legislature and our state passed a policy bill in  
8 support of this project. And so you know how  
9 they have House and Senate.

10 And in the Washington State Senate,  
11 the vote was unanimous in favor of this policy  
12 bill in support of this with one excused absence.  
13 And then in the Washington State House, I think  
14 there were two people that vote "no" on  
15 everything that voted "no", but the rest of them  
16 voted in favor of it. And that was committing  
17 the state of Washington to fund up to 50 percent  
18 of this project's cost.

19 The other money comes from on the  
20 irrigation side. The old way was the United  
21 States would fund and build the reservoir and  
22 then they would -- zero percent interest and base

1 it on ability to pay. That's not going to work  
2 anymore. You couldn't get that through a  
3 Congress now. So if the irrigation entities are  
4 benefitting from storage project, then the  
5 irrigation entities are paying for it.

6 So we've got one called the Kachess  
7 Project. It's a 200-million-dollar project.  
8 That's all coming out of irrigation district  
9 assessments. The farmers are paying for that.  
10 The fish stuff, the farmers aren't paying for the  
11 fish stuff, the infrastructure.

12 So there was a recent conference in  
13 Denver on P3s, public-private partnership  
14 processes. So there are a lot of -- we think the  
15 private money can come in to help fund that, like  
16 that 200 million dollars I mentioned on that.

17 There definitely are opportunities in  
18 an infrastructure package, if we can get one  
19 through, that will really work for this because  
20 we're coming up with new ways to creatively  
21 finance. It's just not going to the government  
22 and getting money. That doesn't work, except for

1 in the case of the Yakima Nation where they have  
2 dilapidated system. That kind of funding will  
3 undoubtedly still occur. But if it's going out  
4 and it's benefitting industry or agriculture, I  
5 think the funding sources are different.

6 So the answer is, yes, this fits.  
7 This will fit and does fit into infrastructure  
8 funding packages.

9 CHAIR BEIDEMAN: Liz?

10 MEMBER HAMILTON: Yes, if I could  
11 follow up on Peter's point. And it's on your  
12 slide, but we're thinking about fish here. But  
13 in the Northwest, we're suffering from 100-year  
14 droughts and 100-year floods almost every other  
15 year -- at least every five years. And if we  
16 don't think about water storage differently,  
17 there won't be any for cities, farmers, fish.

18 And so we don't have that snowpack  
19 that used to be our water faucet in the past. We  
20 can't rely on it. So infrastructure is really  
21 costly. But now that we're doing it in modern  
22 days, we're thinking about fish which wasn't done

1 when they were first built.

2 MR. EBERHART: So Liz, you sparked  
3 another thought. So one of the things that we  
4 did was worked with our state legislature, and  
5 there was an investment broker from New York that  
6 had bought 50,000 acres of some former Boise  
7 Cascade timber company property. And he was  
8 going to develop it and put in little small  
9 villages and then do some of those larger size,  
10 mega branches kind of thing out there.

11 We were able to get the state of  
12 Washington to support us and come up with 100  
13 million dollars to buy that forest. It's called  
14 the Teanaway Community Forest. And then we've  
15 been partnering with the Yakima Nation, and  
16 they've been going up.

17 And in this area where historically  
18 way back, the first time it was logged, they went  
19 up into this beautiful fish habitat way back in  
20 the late 1800s, early 1900s. And they actually  
21 would build these dams, log the trees, fill the  
22 ponds full of water, and then set the dynamite

1 off, and then send the logs on down and get them  
2 down to where they'd made these little railroads  
3 coming up. It was pretty standard practice, but  
4 it's really tough on habitat.

5 So now, we have all these incised  
6 creeks that were from this practice from a  
7 century ago. And we're up there now working on  
8 forest health -- which is another big issue --  
9 forest health.

10 In certain parts of the forest,  
11 thinning the trees out, and then taking them in.  
12 And then putting that woody debris down into  
13 those incised tributaries that are in these nice  
14 mountain valleys where the water is just flashing  
15 out and getting those to fill back up. And then  
16 reclaiming those valleys so that that can soak  
17 the water out into those valleys, keep it cool  
18 and keep that water flowing longer. That makes  
19 cooler water more for fish and wildlife, but it  
20 also make more water for everybody else down the  
21 system.

22 So we're working on restoring small

1 tributary habitat and getting it back to the way  
2 that it historically was. And again, doing this  
3 all cooperatively. So it's a combination of  
4 groundwater storage, surface water storage,  
5 conservation, habitat improvement, but then  
6 everybody moving forward together.

7 CHAIR BEIDEMAN: Next in the queue is  
8 Harlon.

9 MEMBER PEARCE: Thank you for the  
10 presentation. That's enjoyable. In New Orleans,  
11 it's said that the mighty Mississippi River has  
12 to go through 13 people before I get my shot at  
13 it. And maybe that's why we're so wild and crazy  
14 down there, but --

15 (Laughter.)

16 MEMBER PEARCE: Yes, that's right.  
17 But the thing that we also have is a major  
18 problem with agriculture runoff with the dead  
19 zones that we have in the Gulf. Do you have a  
20 problem with that, and how do you handle it?

21 MR. EBERHART: Thanks. Great  
22 question. So that was part of our conservation

1 element. So we actually implemented a really  
2 strong water conservation program but also a  
3 water quality program there.

4 So if you could imagine deep valley  
5 soils and then hops, for instance, that were  
6 historically irrigated with just open ditches,  
7 then the water would run down. And the river  
8 used to be pretty darn muddy.

9 But then what we started to do was  
10 implement the drip irrigation and making it so  
11 that there wasn't any runoff. They were getting  
12 more production. That was the same with grapes.  
13 It was the same with the different fruit crops.  
14 So as we put in these state of the art drip  
15 irrigation, micro-sprinkler, sprinkler type  
16 irrigation systems, the runoff doesn't occur the  
17 same as it did before.

18 And we have targets, total maximum  
19 daily load targets on runoff where we actually  
20 have employees of the irrigation districts that  
21 serve the farmers that the farmers are paying for  
22 that help go around and do self-policing and

1 education. And if somebody is having some  
2 trouble, we have funding sources for them to go  
3 to, to help solve the problem, and it usually  
4 involves changing irrigation practices.

5 So if someone looked at our river  
6 system 20 years ago and looked at it now, they  
7 wouldn't even recognize it. Yes, historically,  
8 it was a problem. Now, our water is pretty darn  
9 clean.

10 MS. LUKENS: I think Kristin wanted to  
11 answer it as well.

12 MR. EBERHART: Okay.

13 MS. MEIRA: I'll follow up just a  
14 little bit from the port perspective for runoff.  
15 Runoff and stormwater management are huge issues  
16 for ports and terminals. So when you think about  
17 where the ports are operating right there on the  
18 waterfront, your docks, everything is a hard  
19 surface. It's all paved. So stormwater  
20 management is huge for our northwest ports, and  
21 they're on the leading edge of innovation with  
22 all of this.

1           The Port of Vancouver USA has done a  
2 lot of work that's received a lot of awards. The  
3 Port of Portland, when it came time to repave  
4 where the Toyotas land. So Toyotas are just one  
5 of the car lines that are imported through Port  
6 of Portland, and there's this many-acre lot where  
7 they come off of the roll-on roll-off ships. And  
8 they get onto the lot before it's time to go get  
9 finished and head off to the U.S. to all the  
10 dealerships.

11           This huge lot needed to be repaved.  
12 And so rather than using traditional asphalt, at  
13 huge expense, they used a water permeable asphalt  
14 replacement, thus almost completely eliminating  
15 runoff from this enormous waterfront facility.  
16 So every single one of our ports is also having  
17 to manage stormwater runoff.

18           MR. EBERHART: Thanks. So it's  
19 technology is really what we're working with to  
20 help solve those problems.

21           CHAIR BEIDEMAN: So Erika is next in  
22 the queue.

1                   VICE CHAIR FELLER: You can skip me.  
2 My question got answered. Thanks.

3                   CHAIR BEIDEMAN: Then Mike is next.

4                   MEMBER OKONIEWSKI: Thanks. You  
5 stirred up a lot of memories. Before I was  
6 teenager, I fished on the American, the Naches,  
7 Yakima. I pronounce it Teton. That might not be  
8 the right pronunciation.

9                   MR. EBERHART: Tieton.

10                  MEMBER OKONIEWSKI: Icicle and  
11 Wenatchee all flowing into the Columbia and all  
12 in that area. And then later, as a college  
13 student, I spent a lot of time on the Yakima  
14 fishing, so I know that area fairly well.

15                  And then after that, when I came back  
16 down Alaska the first time -- in '86, I think --  
17 we started a small fish company in Astoria and  
18 bought salmon in the Columbia River, got involved  
19 and became president of Salmon for All. And we  
20 got involved in salmon restoration and had quite  
21 a few talks with EPA. Their predictions for  
22 increased salmon runs went the other way, and I

1 got out of that company.

2 But this is pretty exciting stuff  
3 because none of it was -- a lot of what you're  
4 talking about, just the collaboration itself, was  
5 really lacking. I think desperation sometimes  
6 forces people together for a common cause.

7 And I think some of the things you're  
8 bringing up here I have never heard mentioned  
9 before, and it's pretty exciting to me because  
10 that whole area has so much potential. I mean,  
11 it was, at one point, they figured there might be  
12 22 million to 30 million fish going up that  
13 river.

14 Most of those were king salmon, and  
15 they probably averaged over 30 pounds when you  
16 think about it, maybe 40 pounds is closer. So I  
17 mean there was a huge biomass supported out of  
18 that river or in the tributaries all the way up  
19 into Canada, I'm not sure about Wyoming, but  
20 Nevada, Montana, Idaho. So it was something big.

21 Is there any thought or chance or has  
22 it ever been discussed about attempting to get

1 over Grand Coulee or any of the other dams where  
2 there's no more fish going anymore?

3 MR. EBERHART: So first of all, we're  
4 focusing on what is incrementally achievable in  
5 the short term to get the biggest bang for the  
6 buck. And those are very controversial and very  
7 expensive prospects.

8 And so some of the folks on the Idaho  
9 side where they're working on the prototypes over  
10 on that side, that is not something we quite know  
11 how to do just yet. But we're hoping that as new  
12 technology is developed, it may be possible.

13 This whoosh system seems to be pretty  
14 promising, but again, it has to go through some  
15 more testing. It may be possible to get them up  
16 and over, maybe not the big dams but some of the  
17 moderately high ones.

18 CHAIR BEIDEMAN: Bob?

19 MEMBER GILL: Thank you, Madam  
20 Chairman.

21 Thank you, Urban, for making a cross  
22 country trip to tell us that, and I appreciate

1 the presentation. Really interesting. So a  
2 couple of questions. One is sparked by Harlon's  
3 question.

4 You attributed all the runoff problems  
5 to irrigation problems. But is not part of the  
6 runoff problem just a rainstorm comes down and  
7 water runs off and creates a problem there? Is  
8 that a part of it, or am I mistaken?

9 MR. EBERHART: Sure. Yes, I was just  
10 addressing the question as it was asked which was  
11 that there was agricultural runoff that had  
12 occurred that you were having some troubles with.  
13 And then that was one of the things that we're  
14 focusing on.

15 But you're right. I mentioned that  
16 forest. One of the things that what we're doing  
17 again is trying to help out or work on ways to  
18 make it so that that water can soak into the  
19 ground rather than flash off.

20 With this whole forest health issue up  
21 in our area, which is throughout the country also  
22 where the forests are, as we're seeing the

1 temperatures change, we're seeing the forests  
2 catch on fire. They're burning up, and these  
3 fires are becoming much more intense for a number  
4 of reasons. That causes a terrible water quality  
5 problem as well.

6 So yes, there certainly are other  
7 influences. And as part of our system, every  
8 year, we're always checking on what the water  
9 quality is coming into the agricultural area and  
10 going out of the agricultural area. And we use  
11 what's coming in or what you're describing as the  
12 baseline so that the farmers are not held  
13 responsible for that water that's coming down  
14 that way.

15 So we watch that quite closely, but  
16 we're also trying to work on forest health in  
17 those waterways so that we can improve water  
18 quality. But you're right. It is not all  
19 agriculture. Thank you for that.

20 MEMBER OKONIEWSKI: And second  
21 question. I think your people-to-people approach  
22 is dead on. It's exactly right, and I applaud

1 your success so far in that.

2 But from a practical standpoint, do  
3 you think that's expandable to any significant  
4 size realistically? I'm from the Gulf. Let's  
5 say Gulf of Mexico and all the folks that deal  
6 with that. Is the model that you're using,  
7 practically speaking, expandable significantly?

8 MR. EBERHART: Yes, I do firmly  
9 believe it is, if there are areas like ours where  
10 infrastructure was built like the irrigation  
11 ditches when they were first constructed. One of  
12 the reasons our farmers support this is because  
13 they can get outside funding to improve their  
14 water systems. They can get better delivery as  
15 those systems are expanded, and those improved  
16 systems then have an additional capacity for  
17 other water to ride on top of their water.

18 So they're still getting their water,  
19 but the system has been improved. That new  
20 expanded system then has the ability to help  
21 fish. So that can be done anywhere if you have  
22 old infrastructure that needs improvement.

1                   So yes, I do believe it's expandable.  
2           Where a lot of the irrigation occurred was in the  
3           17 western states. There's irrigation all over  
4           the country actually. So yes, it is expandable.

5                   CHAIR BEIDEMAN: Julie?

6                   MEMBER BONNEY: Thank you, Madam  
7           Chair. I'm trying to put this in an Alaska  
8           context, and the partnerships that you're working  
9           on.

10                   So, in Alaska, that we had a Chinook  
11           salmon crisis up in the Yukon that, and there are  
12           many of the native peoples that were dependent on  
13           those fish for subsistencies, and also commercial  
14           harvest.

15                   And so, there was a big, it was really  
16           a failure because of environmental conditions,  
17           but there was a big focus on commercial harvest  
18           and by-catch of Chinook in the commercial harvest  
19           of other species.

20                   And they built the very complicated  
21           by-catch management system for the largest food  
22           fishery in the world, the Bering Sea pollock

1 fishery, and, which their harvest is usually  
2 about 1.5 million tons a year, and they're  
3 allowed to catch no more than the, what, the  
4 standard is 50, or 45,000 Chinook for the, to  
5 harvest that amount of fish in annual cycle.

6 And they've showed that data, science,  
7 that 2 percent of the impact on Chinook is  
8 because of by-catch, and the other 98 percent is  
9 other, either those users or the environment and  
10 all of the other things.

11 And so, I guess my first comment to  
12 both industries is it sounds like you've stepped  
13 out and really bought a lot of money and  
14 technology to try to minimize your footprint, and  
15 I'm just wondering on the other side of the table  
16 whether you're getting appreciated for that, or  
17 if you're just getting beat up more saying it's  
18 never enough.

19 So, do you feel like you're building  
20 collaboration where people are appreciating the  
21 money and the effort that you're doing, and  
22 they're contributing to a good solution, or are

1 they just demanding more from you as a group?

2 MR. EBERHART: Yes, that's always the  
3 risk. But in our particular instance, yes, it's  
4 like, well, so, once you get here that day, then  
5 I want 10 more, and then the next day you want 10  
6 more. No, we're not really seeing that as how  
7 it's going, at least in our area.

8 It seems to be, what we did was,  
9 again, early on, talked to everybody and just  
10 said, okay, what do you really need? What can  
11 we, what do we think we can achieve here, and how  
12 are we going to get that accomplished? And  
13 everybody's been sticking with it.

14 MEMBER BONNEY: This sounds like you  
15 might get consensus after all.

16 MS. MEIRA: I would say that from a,  
17 from the port's perspective, there's, there is  
18 some frustration at the goalpost shift.

19 What was good enough for either, you  
20 know, mitigation work, et cetera, a couple of  
21 years ago, is no longer good enough. And the  
22 answer is usually, well, the science has evolved,

1 and now the science is telling us that this is  
2 what we need.

3 So, I don't think there's any way  
4 around that, especially where we are with the  
5 number of listed species that we have.

6 I think it's just part of operating on  
7 the waterfront in the Pacific Northwest. But it  
8 is a, it's a constant challenge for those folks.

9 CHAIR BEIDEMAN: Randy.

10 MEMBER FISHER: Sort of to get to  
11 Bob's question, when he asked why, whether you  
12 could do this somewhere else, I can guarantee you  
13 that if it weren't for the Treaty Tribes and  
14 Bonneville Power Administration paying for this  
15 stuff, a lot of this would never happen.

16 So, if you look at the Mississippi,  
17 you don't have any Treaty Tribes, I don't think.  
18 So, that's what Bonneville is worried about.

19 They're way more worried about the  
20 Treaty Tribes than they're worried about any of  
21 our other, us, I can tell you that.

22 And I'm not a firm believer that

1 you're ever going to get total agreement on this  
2 thing when it comes down to the very end, because  
3 of the point that just was made. The goalpost  
4 changed.

5 The upriver tribes have a certain idea  
6 of what they think they're eligible for. All of  
7 the Treaty Tribes are eligible for half of the,  
8 half of the surplus fish that are, that we  
9 produce, basically, harvestable surplus.

10 So, I'm, what they're doing is great.  
11 I hope they come to an end because MAFAC's going  
12 to be sitting here trying to decide whether or  
13 not you should cut more water or what you do.

14 CHAIR BEIDEMAN: Bob.

15 MEMBER GILL: Thank you, Madam, Chair.

16 And that raises another question in my mind.

17 What sort of, you know, there's 23 million  
18 varieties of consensus, and what kind of  
19 consensus are you using and trying to achieve?

20 Consensus means a lot of things, and  
21 your definition may be one way. Another group  
22 may be a totally different way. So, I'm trying

1 to see where, what level you're trying to get to.

2 MR. EBERHART: Okay. So, going back  
3 to our earlier meetings, we went around the table  
4 and we were talking about, as we worked through  
5 things, we were going to do everything we could  
6 to get everybody in the room to agree with  
7 whatever direction we were going.

8 But I don't know if there was a  
9 specific label for the type of consensus that we  
10 had. We are going to do everything we can to  
11 make a recommendation to this Committee that is  
12 going to be the Columbia Basin partnership's  
13 recommendation.

14 And we maybe, so we've broken it up  
15 into these initial prototypes. Of the 23 stocks,  
16 we've taken, say, 5 of them, and then we're going  
17 to do little pilots, or not pilots, prototypes  
18 of, on a specific species.

19 So, like mid-Columbia steelhead. I'm  
20 confident that we're going to get to a mid-  
21 Columbia steelhead prototype recommendation that  
22 makes sense that everybody in that mid-C, mid-

1 Columbia steelhead unit agrees to. Heidi?

2 MS. LOVETT: Yes. I was just going to  
3 see, there are actually a few more slides, and  
4 some staff in the northwest have a little bit  
5 more to add to this conversation, and I think  
6 they'll describe a little bit, at least the  
7 process that's been undertaken so far, and where  
8 they're at. So, it might answer your question a  
9 little bit more.

10 MR. EBERHART: And Terri, how are we  
11 doing with the timing with, speaking of that?

12 CHAIR BEIDEMAN: It's, I think, a good  
13 time to get back on the phone and have the, and I  
14 don't know who's scheduled to, Katherine or  
15 Michael?

16 MS. CHENEY: Yes, this is Katherine.  
17 I'm here to walk through the last couple of  
18 slides. I apologize that I haven't weighed in on  
19 some of the questions and answers. It's a little  
20 hard to hear in there, but I will do my best.

21 So, what I want to do is reference the  
22 last couple slides that talks about the progress

1 and the product to date. We're about halfway  
2 through our two-year effort, and just picking up  
3 on, I guess it's Slide 21 there.

4 Keeping our desired outcomes in mind,  
5 what we're hoping to achieve, our goals that  
6 bring together the conservation and the heart of  
7 operations in the Columbia Basin. And we want  
8 those goals to be supported by the various users  
9 and interest in the Columbia Basin.

10 And as you've heard from Kristin and  
11 Urban, there's quite a bit of economic  
12 significance associated with salmon and  
13 steelhead. But I don't want to lose sight of the  
14 cultural and even spiritual aspects of salmon and  
15 steelhead, and their iconic nature, and the  
16 importance of all of those citizens, really, of  
17 the Columbia Basin.

18 And that, I think, is what binds us  
19 all around the table, is really the love of the  
20 fish, and the importance of the river.

21 So, more specifically for our task  
22 force, what we intend on working towards are

1 quantitative adult abundance goals for both  
2 listed and non-listed stocks.

3 And there's a lot in this sentence in  
4 that adult abundance is one of many metrics that  
5 we use to measure salmon and steelhead recovery  
6 and success.

7 But one of our challenges is you look  
8 across the Magnuson Act or ESA, and some of the  
9 mitigations planned, is that many of those plans  
10 use different metrics.

11 And so, one of our outcomes is that we  
12 would like to have common aligned goals that  
13 everybody can use and work towards.

14 Once we have those, it's our hope that  
15 we'll have better coordination, more effective  
16 use of resources, and alignment of strategic  
17 priorities.

18 And you heard about the great work  
19 that's going on in the Yakima Basin, but we have  
20 similar challenges and similar collaborative  
21 efforts in the many other parts of the Columbia  
22 Basin as well, in the lower river, in the upper

1 river, and the Snake.

2 So, while we're trying to build on the  
3 momentum of those local, more localized efforts,  
4 we still have the challenges of having a common  
5 metric and a common way to measure our success.  
6 And that's one of our desired outcomes of this  
7 partnership.

8 And certainly, along the way, we're  
9 hoping for enhanced relationships, trust, and  
10 understanding of each other's interests, and all  
11 of the complexities that go along biologically  
12 and technically with salmon and steelhead  
13 recovery.

14 So, keeping those in mind and moving  
15 to the next slide, this is a graphic of the logic  
16 steps in our process and the various products  
17 that we're working on.

18 So, starting at the top left, our  
19 engagement, initially, involved working on a  
20 common framework, a set of operating principles,  
21 we have our terms of reference with you guys, and  
22 coming up with our work plan that, I believe, was

1 a handout, along with the other materials.

2 And then, what we've been working on  
3 is, in the policy realm, a vision, a common  
4 vision for all of us to work towards, a set of  
5 guiding principles for our work, as we work  
6 together, a set of qualitative goals, which are  
7 descriptions of what we want to achieve.

8 And then, the quantitative goals,  
9 which we're starting out with these five pilot  
10 species, which are the numerical representations  
11 of those healthy and harvestable ranges that  
12 Barry talked about in that green zone.

13 And the qualitative and quantitative  
14 goals really go back and forth as iterative  
15 products.

16 And then, once we have them for the  
17 individual species, we'll work on integrating  
18 those species across the Basin to come up with  
19 Basin-wide goals. And then, we'll turn them all  
20 into recommendations for your consideration.

21 And throughout all of these  
22 discussions, all of our values that are

1 represented by the broad interests around the  
2 table are just an integral part in this work.

3 They're ecological, social, cultural,  
4 economic, and all of the people around the table  
5 just speak to those all along.

6 Going to the next slide, our specific  
7 work products and progress, we have subgroups for  
8 each one of those products, made up of task force  
9 members.

10 Right now, as we're working through  
11 these five prototype species, we have teams. For  
12 each one of them, they're collecting relevant  
13 data. We have a template.

14 The data involves everything from  
15 current status to habitat capacity, to where are  
16 the hatcheries, to where are the fisheries.

17 Looking at all of the existing goals  
18 and the various plans that are out there in any  
19 given area, we could have as many as half a dozen  
20 to a dozen different plans that address those  
21 specific species.

22 And those prototype teams are now

1 collecting those data and providing options for  
2 the quantitative goals that the task force is  
3 going to start considering in December.

4 We're hoping then to complete the  
5 information and the data collection for the rest  
6 of the species by our February meeting.

7 And then, in our February meeting,  
8 we'll start to integrate those goals and look at  
9 the Basin-wide level, and start working through  
10 that, through the rest of the year.

11 So, our last slide, we look forward to  
12 providing you guys with recommendations that  
13 would involve both the qualitative goals, what  
14 we're trying to achieve, and the quantitative  
15 goals, which is how we'll measure those goals.

16 We envision that the quantitative  
17 goals will be recommended at both the individual  
18 species level and integrated across the Columbia  
19 Basin.

20 We'll also be providing  
21 recommendations and additional supportive  
22 information regarding our vision, guiding

1 principles, assumptions, all the supporting data.  
2 And we don't quite know the specific format yet.

3 We are envisioning a report with all  
4 these various chapters based on the products.  
5 And we're going to start working on that soon.

6 So, with that, I guess I'll take  
7 questions or invite my partnership colleagues  
8 there, Urban, Kristin, Liz to add anything I may  
9 have missed.

10 CHAIR BEIDEMAN: Bob.

11 MEMBER GILL: Thank you, Madam Chair.  
12 I've got a basic question, and it stems from  
13 being a newbie, so it's a newbie question. What  
14 is the, it's hard. What is the relationship  
15 between the task force and MAFAC?

16 It seems to me, at the base, it's,  
17 they're going through an extraordinary effort and  
18 would like our support, positive support to the  
19 Secretary confirming that. Is it, there any more  
20 to it than that?

21 MS. LUKENS: That's a good question,  
22 Bob. I think one of the, this is Jennifer

1 Lukens, for those of you on the phone.

2 It's, the reason, one of the reasons  
3 that we were using MAFAC as a whole, is its  
4 ability to get stakeholder input to the Secretary  
5 of Commerce. It's with the, it adheres to the  
6 Federal Advisory Committee Act.

7 And as the Basin partnership has a lot  
8 of folks that are non-federal representatives  
9 that, as Urban was talking about, a wide amount  
10 of stakeholders that, in order to get their input  
11 and provide that, it needs to fall underneath  
12 that umbrella.

13 So, the task force is a subset  
14 underneath of MAFAC. It's specific. It's  
15 regionally-specific and unique, and they have a  
16 particular task.

17 One of the reasons why I wanted to  
18 spend so much time at this meeting on this issue  
19 is, I went to the task force meeting, what was  
20 it, in September, and I was fascinated by the  
21 level of complexity of this issue, the amount of  
22 stakeholders, the amount of baggage that had been

1 checked at the door to sit down, for the most  
2 part, to sit down and have these conversations.

3 And these people are doing a  
4 significant amount of work to really get to a  
5 mutually beneficial goal for everyone; everybody  
6 has a different interest who's at the table.

7 But in the fact that, them coming up  
8 with recommendations, MAFAC is the ultimate FACA  
9 entity that they need to report up to. And MAFAC  
10 needs to have a very intimate understanding of  
11 what went into those recommendations, the process  
12 that folks went into, and the balance that, the  
13 sticky wickets they had to go through in order to  
14 get those goals and those recommendations to  
15 MAFAC.

16 And that MAFAC isn't asking questions  
17 that would cause them to have to go back to start  
18 because they haven't been informed on regular  
19 intervals and aren't understanding the process.

20 So, sorry, I kind of went off on my  
21 own little tangent there, but that's a point I  
22 had wanted to make at some point today.

1                   So, they are reporting to MAFAC, and  
2 MAFAC does deliver those recommendations to the  
3 assistance administrator and to the Secretary of  
4 Commerce. Yes, Bob?

5                   MEMBER GILL: Thank you, ma'am. They,  
6 one quick follow-up. It sounds to me, from the  
7 way you're describing it, that when they do  
8 provide the results, their recommendations, it's  
9 going to take some time for MAFAC to wade through  
10 those, given the depth of detail and complexities  
11 that they've dealt with.

12                   Now we've kind of got this huge chunk  
13 of, well, here's the recommendations, but guess  
14 what? Here's the supporting documentation.  
15 Trying to understand the whole context, it's  
16 going to take some time for this group.

17                   MS. LUKENS: So, that's exactly why we  
18 want to make this a large focus of the meetings  
19 going forward, so that you all feel that you're  
20 informed enough when you get a product in order  
21 to be able to evaluate it and speak to it.

22                   I don't expect for you to go down into

1 the details and the weeds of these folks that, of  
2 what they've been, some of them have been  
3 spending their entire careers on.

4 But I think that's, they're doing that  
5 hard work and presenting it forward to you all as  
6 a body to evaluate and make recommendations based  
7 upon that. They are the subject matter experts,  
8 so to say. So --

9 CHAIR BEIDEMAN: Sebastian.

10 MEMBER BELLE: Thank you, Madam Chair.

11 I have to say, this all sends a shiver up my  
12 spine, given what I've been through on the east  
13 coast with only one species of salmon and a few  
14 dams.

15 (Laughter.)

16 MEMBER BELLE: So, I think the work  
17 that you guys are doing is really quite amazing,  
18 and I'm very impressed by the level of being  
19 willing to check the baggage at the door, as you  
20 say.

21 I have just two kind of process  
22 questions, and that is, are the recommendations

1 coming out of this group going to be arrived at  
2 by consensus? And will there be opportunities  
3 for minority reports if there isn't consensus?

4 MS. CHENEY: Yes, this is Katherine.  
5 We are certainly striving for consensus, but  
6 should there be a need for minority reports, I  
7 think we would, of course, recognize and respect  
8 those.

9 MEMBER BELLE: Great. Okay.

10 MS. CHENEY: We hadn't talked about  
11 that, per se, as a task force, but I'm guessing  
12 we would be okay with that. We need to talk  
13 about it. That, I guess, would be my view.

14 CHAIR BEIDEMAN: Did you want to speak  
15 to that, Liz?

16 MEMBER HAMILTON: I actually had about  
17 four points, but I'd rather save them until the  
18 end, and that's one of them.

19 CHAIR BEIDEMAN: Something else?

20 MEMBER GILL: Thank you, Madam Chair.  
21 Well, that goes back to my question to Urban.  
22 And sounded like how you're defining consensus is

1 100 percent, or as opposed to a simple majority  
2 or something in between.

3 I guess one of the things I'd like to  
4 understand, nobody else, would be what kind of  
5 consensus are they going to get, and just because  
6 they have a dissenter, or more, you know, are  
7 they going to allow three dissenters, or whatever  
8 the numbers are? But how that's, how they arrive  
9 at their conclusion, and what the makeup of that  
10 is. Thank you.

11 CHAIR BEIDEMAN: Julie.

12 MEMBER BONNEY: So, I think we're kind  
13 of beating a, the horse over the head on this  
14 issue of consensus, because I think we have to  
15 let them do their work.

16 I guess one of the process questions  
17 though, to kind of follow up on is, we had John  
18 Shelley that was on the Committee, and then Liz.  
19 And John was not, is not, no longer on --

20 Or Peter. Okay. And then, Liz is  
21 terming out, I think, in February, so we're kind  
22 of losing, I don't know if she can stay on or how

1 you build the bridge between having some members  
2 of MAFAC on the Committee, and then to kind of  
3 deal with the consensus issue and what's  
4 happening at the meeting, since we are not all  
5 there.

6 COMMISSIONER LAWSON: So, that's  
7 actually one of the things that, at this meeting,  
8 that we do need to determine, I was going to  
9 mention today, is that since Peter is, has left  
10 MAFAC, we do, and Liz will be leaving us, that we  
11 do need to identify a liaison representative from  
12 MAFAC to be attending those meetings and helping  
13 to get those answers to those questions that  
14 MAFAC has asked, and posing those to the task  
15 force.

16 So, Heidi attends every single one of  
17 those meetings. I'm trying to get to as many as  
18 possible, but we do need to have a MAFAC  
19 representative identified to attend those  
20 meetings and participate, and remind folks that,  
21 about MAFAC and be a liaison for those questions  
22 and issues, much as what Bob has asked there. So

1 --

2 MEMBER BONNEY: So, that would be  
3 decided when?

4 COMMISSIONER LAWSON: At this meeting.

5 (Laughter.)

6 COMMISSIONER LAWSON: That's one of  
7 the things that we have to talk about, that we  
8 need to identify. So, at this meeting, Julie.  
9 Heidi, can you expand on anything I missed  
10 please?

11 MS. LOVETT: No, I just wanted to say  
12 that Liz applied amongst the pool of applicants  
13 that we got who wanted to be on the task force,  
14 and I don't know if you recall, but MAFAC  
15 reviewed, there was a small team of MAFAC  
16 individuals who reviewed all of the individuals  
17 that had an interest in serving on the task  
18 force, and you all helped identify the whole  
19 makeup of the task force, and made, that was a  
20 recommendation to NOAA, who appointed them.

21 Liz, then, is actually a member of the  
22 task force, and will continue in that role, even

1       though her role on MAFAC ends at the end of  
2       February. I just wanted to clarify that.

3               CHAIR BEIDEMAN: I believe, this is  
4       Terri. I believe we have one more individual on  
5       the phone. Michael Tehan, who's the assistant  
6       regional administrator for the interior Columbia  
7       Basin area office.

8               MS. CHENEY: This is Katherine.  
9       Michael was not able to join us today.

10              CHAIR BEIDEMAN: Strike that.

11              (Laughter.)

12              MS. CHENEY: He's actually, most  
13       unfortunately, is at corporate right now.

14              CHAIR BEIDEMAN: Yes. So, now we have  
15       general comments from anyone around the table,  
16       and I will start with Liz.

17              MEMBER HAMILTON: Thank you. I  
18       appreciate it. It's been interesting sitting on  
19       both sides, listening to MAFAC, that almost  
20       didn't do this. Remember the discussion? MAFAC  
21       almost said no to this task force approach.

22              And then, on the other side of the

1 table, listening to all the distrust about what's  
2 MAFAC and what will they do with our  
3 recommendations and all that?

4 (Laughter.)

5 MEMBER HAMILTON: So, there's some  
6 trust and relationship building that needs to  
7 happen between the task force, and I don't know  
8 quite how to fix that with the distance in all of  
9 it. You know, that's important that we, like you  
10 say, keep the bridges going between the two.

11 As for the consensus issue that kept,  
12 oh, that kept coming up, I think it was the first  
13 meeting where the state of Idaho pounded the  
14 table and said, there will be no re-introductions  
15 above closed areas.

16 And the tribes who sit above closed  
17 areas where they used to have fish are saying  
18 we've got to do this. This is not fair. Our  
19 culture is based on fish, and these dams blocked  
20 it.

21 So, I do believe there will be some  
22 reports. I don't know that you could call them

1 majority/minority, but I don't know that we're  
2 going to get the complete consensus, so be ready  
3 for some things where there will be some  
4 different viewpoints that the great staff of NOAA  
5 will reflect for this, well, we've got some  
6 really good people in the, in the building, or in  
7 the room, and a good facilitator process.

8           The historical question that came up  
9 earlier, I'm working on two of the prototypes out  
10 of five. And a lot of the pristine that was at  
11 the top, we don't have that information, so we  
12 can't really do that.

13           But what you've heard several times  
14 today in the couple hours is that in many of our  
15 lifetimes, we're all, a lot of us are older,  
16 working on this.

17           I've had my whole career working on  
18 Columbia River salmon recovery. We remember what  
19 it was like to have all those fish in our  
20 streams.

21           And a lot of the declines have been  
22 precipitous over the last 20, 30 years. So, for

1 most, for many, the historical place that we're  
2 working from was when there was this abundance  
3 that sustained commercial and sport fisheries.

4 Right now, most fisheries are deeply,  
5 deeply constrained. People won't talk about  
6 wanting certainty, I'd long for, our businesses  
7 would long for one year of certainty, much less  
8 25 or 30 year contracts. That would be  
9 fantastic.

10 So, when you're thinking about  
11 certainty, remember the fish and the communities  
12 that are dependent on that.

13 The other thing is that almost every  
14 time, when a big agreement came together where  
15 many different stakeholders checked their guns at  
16 the door and came into the room, there was  
17 usually a forcing mechanism, and it was usually  
18 courtrooms or treaty rights.

19 So, you know, I hope we're at that  
20 process where the forcing mechanisms get us to a  
21 good place, as the communities.

22 And then, finally, to Urban and to the

1 rest of you who will be here when I'm not here, a  
2 lot of how we measure success in the Basin  
3 currently, the yardstick is how many baby salmon  
4 get from one piece of concrete to another piece  
5 of concrete?

6 And while that's a great, easy,  
7 measurable yardstick, the real yardstick is smolt  
8 to adult returns. And some of the best  
9 scientists in the Basin have told us this over  
10 the years.

11 So, remember that when you're looking  
12 at the report is, it's about adult returns, and  
13 it's great if the fish whooshed through your  
14 piece of concrete, but if those babies aren't  
15 resulting in adult returns, then the whoosh  
16 didn't work.

17 So, I hope it does, but I hope that's  
18 a yardstick that we take up in the northwest for  
19 these fish. So, they're iconic. They're worth  
20 fighting for.

21 I don't know anything else in any  
22 other part of the world that is so meaningful to

1 so many people in a moral way, in a recreational  
2 way, in a spiritual way, to tribes, to  
3 commercial, to sport.

4 They're significant and they're worth  
5 doing, and I appreciate that MAFAC adopted this  
6 process.

7 And maybe it's a template for other  
8 things that we can do through NOAA in other  
9 regions in the future if we do it right.

10 CHAIR BEIDEMAN: Mike.

11 MEMBER OKONIEWSKI: Thank you, Madam  
12 Chair. I'm glad Liz could, can continue. I'm  
13 getting a sense that she can, because I almost  
14 felt compelled to volunteer if she couldn't, and  
15 I simply don't have the time. So --

16 (Laughter.)

17 MS. LOVETT: Okay. So --

18 MEMBER HAMILTON: Heidi, clarify that  
19 again, please.

20 MS. LOVETT: Yes, I'll clarify this  
21 one more time.

22 MEMBER OKONIEWSKI: Okay.

1 MS. LOVETT: So, the task force has 28  
2 members --

3 MEMBER OKONIEWSKI: Right.

4 MS. LOVETT: -- and one of those  
5 members includes, is Liz.

6 MEMBER OKONIEWSKI: Right.

7 MS. LOVETT: In addition, Peter  
8 Shelley had served as a direct liaison and was  
9 reporting back here from, and he had been  
10 attending all of the meetings.

11 So, he is not on MAFAC anymore. We  
12 still need someone to step up and volunteer and  
13 be the liaison to help this Committee be familiar  
14 with --

15 (Laughter.)

16 MS. LOVETT: -- to be familiar with  
17 the ongoing process. And we put a lot of time on  
18 today's agenda to bring everybody up to speed,  
19 and obviously next year we're going to have  
20 additional new members.

21 So, it's important to have someone  
22 who's here now, potentially, that can serve as a

1 liaison. And there might be a need to have, you  
2 know, a second person as a backup. But I think  
3 that is a goal right now, is to have someone step  
4 up and offer to participate.

5 MEMBER OKONIEWSKI: Through the Chair,  
6 in that case, does it have to be a MAFAC member,  
7 or could somebody like more qualified than of us,  
8 Randy Fisher, do it?

9 MS. LOVETT: It seems incumbent that  
10 MAFAC have a liaison and --

11 MEMBER OKONIEWSKI: Okay.

12 MS. LOVETT: -- because you, the task  
13 force itself are those more qualified  
14 individuals.

15 They are, they are all super qualified  
16 in the fields that they work in and the folks  
17 that they represent.

18 MEMBER OKONIEWSKI: I think I see the  
19 writing on the wall here.

20 (Laughter.)

21 MEMBER OKONIEWSKI: Just one comment I  
22 did want to make also, that this is a hotbed

1 area, and it could, you know, what I've heard  
2 here is pretty amazing stuff.

3 I would hate to feel, or find out it  
4 fell apart and then there's a whole bunch of  
5 courtroom battles going on, which could easily be  
6 the case.

7 And there's, I think, no doubt that  
8 tribal supremacy is going to be probably the rule  
9 of the day in the end. But that could tie up a  
10 lot of NOAA fisheries' resources, and be a bad  
11 deal all the way around.

12 So, I guess that, what I've seen here  
13 so far is, went way beyond what I, my  
14 expectations were. So, with that said, I'll just  
15 leave it at that, and --

16 (Laughter.)

17 MEMBER OKONIEWSKI: Oh, boy. Okay.

18 (Laughter.)

19 CHAIR BEIDEMAN: Liz.

20 MEMBER HAMILTON: I think it would be  
21 awesome if Mike jumped in with both feet. If it  
22 doesn't fit into his schedule, to me, it makes

1 sense for the Ecosystem Chair because, as Urban  
2 pointed out, you know, if we don't solve this  
3 from an ecosystem basis, it isn't going to work  
4 for the stakeholders that need it to work, which  
5 is all of us.

6 MEMBER YOCHAM: Thanks, Liz. I'm the  
7 Ecosystem Chair, and --

8 (Laughter.)

9 MEMBER YOCHAM: -- I'm terming out  
10 though, and, but I would certainly echo what Liz  
11 says.

12 I think that even if the Ecosystem  
13 Subcommittee Chair is not the official MAFAC  
14 representative, I think it's very important that  
15 that person sit in on as many meetings as  
16 possible.

17 So, I participated in the webinars of  
18 several of the meetings, and I'm on the mailing  
19 list for all of the information so that I can be  
20 better informed, and I would, my understanding is  
21 that any member of MAFAC who wants to do that, be  
22 part of the process, unofficially, if you will,

1 to make sure that they're well-educated when it  
2 comes to, before MAFAC, can certainly do that.

3 COMMISSIONER LAWSON: Another thing  
4 that Heidi and I were discussing was in terms of  
5 keeping this interface between the task force and  
6 MAFAC more regular is considering the next in-  
7 person MAFAC meeting to be out in this general  
8 region.

9 We were trying to sync it up with  
10 actually meeting the same time that the task  
11 force would, and I don't think that's going to  
12 work, but trying to get it in the region so that  
13 maybe other members, we would love to have both  
14 Kristin and Urban back to talk to us, but maybe  
15 other stakeholders for, that are participating in  
16 the process could come and meet and speak with  
17 us.

18 So, that's one of the ideas that Heidi  
19 and I are tossing around right now. So, I'd like  
20 to hear if you all, you know, we don't have to do  
21 it now, but that's something that maybe the  
22 Subcommittee can talk about if they want to weigh

1 in on that. And --

2 CHAIR BEIDEMAN: And it is something  
3 discussing potentially the Subcommittee meeting  
4 that's tomorrow afternoon, could be discussed  
5 there.

6 Who would be, firstly, who would be  
7 taking over the Chair, and who might be  
8 interested in participating on that. So, that's  
9 tomorrow afternoon. So, a little time to twist  
10 some arms. Okay.

11 Are there any other questions for  
12 anyone on the phone or anyone else who's here? I  
13 have to say that, you know, from my perspective,  
14 that I think they've come a very long way in a  
15 pretty short amount of time, considering the  
16 complexity of the entire issue.

17 And I think we'll just have to let it  
18 play out and see how it works. But so far,  
19 they've made it quite a ways through their  
20 decision making, goal making, and just trying to  
21 have folks trust each other starting off is the  
22 hard start.

1                   So, I think they've done a fabulous  
2 job, and I appreciate the update. I think it's  
3 good for us to know on a regular. So, thank you.

4                   MS. CHENEY: This is Katherine. I  
5 just want to say thank you for your support and  
6 attention to our beautiful part of the country  
7 and the challenges that we face, and thank  
8 everyone for their involvement. So --

9                   CHAIR BEIDEMAN: Do you have something  
10 to add, Heidi?

11                   MS. LOVETT: Yes. I just wanted to  
12 add, we didn't, we didn't note this at the very  
13 start, but on the MAFAC meeting website, in  
14 addition to this presentation, there is a copy of  
15 the work plan.

16                   There's a list of those species that  
17 were discussed, that Barry noted at the front  
18 end, the 24 different steelhead and salmon listed  
19 and non-listed, as well as, just to refresh for  
20 those who were here in the past, a list of the  
21 members, and the, you know, the groups that they  
22 represent.

1 CHAIR BEIDEMAN: Thank you, Heidi.  
2 And I think we're actually caught up and a little  
3 ahead. So, we can take a little break. I think  
4 our next presentation or report is not until  
5 2:15, so we have a break.

6 COMMISSIONER LAWSON: So, it's Rear  
7 Admiral Gallaudet will be here. He's actually in  
8 the building now, so please try and come back  
9 promptly at 2:15. Oh.

10 (Whereupon, the above-entitled matter  
11 went off the record at 1:58 p.m. and resumed at  
12 2:17 p.m.)

13 COMMISSIONER LAWSON: Okay, everybody.  
14 Thank you so much. That was a long discussion  
15 that we had, and thank you for being patient and  
16 eating and working through lunch. We appreciate  
17 it.

18 Barry Thom appreciated you all  
19 accommodating his schedule. Right now, I'm  
20 really excited to introduce Real Admiral Tim  
21 Gallaudet.

22 He is, as Paul described this morning,

1 he is the assistant secretary at NOAA, but right  
2 now, he is acting under Secretary for Commerce  
3 until we have a NOAA administrator that is  
4 appointed and confirmed.

5 He recently retired from the Navy, and  
6 I think he's going to tell you a little bit about  
7 his background, but he does have his Bachelor's  
8 and a PhD in Oceanography, both from the Naval  
9 Academy, and from Scripps.

10 So, I'm hoping he'll talk a little bit  
11 about his background there, but we're really  
12 excited to have him onboard.

13 And we were very fortunate, two weeks  
14 ago, on his fourth day on the job, he came to  
15 speak to the NOAA Fisheries leadership team that  
16 was coincidentally in town from across the  
17 country, and I left, for one, feeling inspired  
18 with his positive attitude, and his remarks and  
19 excitement for working at NOAA.

20 So, I'm sure you will too, feel a  
21 little excited after hearing from him. So, thank  
22 you so much, sir, for being here today.

1 We planned that, so --

2 RDML GALLAUDET: You're right. I  
3 tried to go improv on you here.

4 COMMISSIONER LAWSON: Well, if we're  
5 going to blame it on the FACA Committee Act, and  
6 the requirement that we have a court reporter the  
7 whole time.

8 RDML GALLAUDET: Okay.

9 COMMISSIONER LAWSON: So thank you,  
10 Admiral.

11 RDML GALLAUDET: Here we are. All  
12 right. So, thank you for that kind introduction,  
13 and good afternoon, everybody.

14 So, just as a byway of introduction,  
15 you know, it's, I have three little kids, and  
16 this time of year, you know, the only thing on  
17 their mind is Christmas and Santa Claus, and it  
18 made me think a bit about this whole aspect of my  
19 job.

20 And it's an area I'm not too deep in,  
21 fisheries. I have a lot of the oceanography and  
22 meteorology and hydrography.

1                   And so, I was considering, you know,  
2                   this, the two together, and it made me realize  
3                   there was a great analogy here with fisheries.

4                   And one of my favorite movies is The  
5                   Year Without a Santa Claus. And who's, raise  
6                   your hand if you've seen this epic Christmas  
7                   story. It's as old as I am, 50 years old this  
8                   year.

9                   And it's, for those who don't know,  
10                  there's this great storyline where the town of  
11                  Southtown wants to know, and they go and ask  
12                  Santa Claus to help make it happen.

13                  And the heat, Freeze Miser makes the  
14                  snow, but his brother, the Heat Miser, you know,  
15                  he's, he controls the weather in the south and  
16                  won't let it happen.

17                  So, Mother Nature gets in the middle  
18                  of it all and intervenes, and it really made me  
19                  think a lot about what we're doing in fisheries  
20                  right now. And --

21                  (Laughter.)

22                  RDML GALLAUDET: -- so, but there's

1 more. If you've ever seen Rudolph the Red-Nosed  
2 Reindeer, I had to expand a little bit more  
3 because there's --

4 (Laughter.)

5 RDML GALLAUDET: -- no better  
6 character for the IUU fishing than the Abominable  
7 Snow Monster. Of course the NGOs are just like  
8 Santa Claus. They want everybody to feel good.

9 (Laughter.)

10 RDML GALLAUDET: And you know, there  
11 are a lot of scientists that work for me that are  
12 a lot like that nerdy dentist, but I love them  
13 because I'm like them.

14 And of course, Rudolph is nobody  
15 better than what we're trying to protect and  
16 conserve. So, anyways, there you go. I  
17 lightened it up.

18 (Laughter.)

19 RDML GALLAUDET: About me, a little  
20 bit briefly, just as an introduction. As  
21 Jennifer said, I've been in the Navy for 32  
22 years.

1                   Just retired in September, and there,  
2                   that young lad on the upper left is me, and my  
3                   father swearing me into the US Naval Academy.

4                   And I decided to go to the Academy  
5                   because I was just, growing up in southern  
6                   California, I loved everything about the ocean.

7                   It wasn't so much that my dad was in  
8                   the Navy. It was more that I just wanted to work  
9                   on the sea.

10                  And here it was, the Naval Academy  
11                  afforded me an opportunity to work on the sea  
12                  right away, upon graduation, and study it,  
13                  because it had a great degree program in  
14                  oceanography.

15                  And it was free, so that helped a lot  
16                  too, and convinced my parents a little bit. But  
17                  it started a journey which I've just been really  
18                  privileged to have.

19                  I have three degrees on the Navy's  
20                  dime. That middle picture there on the top is  
21                  the Institute of Oceanography's pier.

22                  So, I spent a good deal of my career

1 getting educated there, and thankfully, it's  
2 really paid off. It paid off for me in the Navy.

3 I ultimately assumed a job as  
4 Oceanographer for the Navy. Got me to do some  
5 good gigs, like ride a submarine in the Arctic,  
6 and also, take on this current position, which I  
7 view, at NOAA, as really coming back to what I've  
8 always loved first, and that's studying earth  
9 sciences and applying them for the good of our  
10 country.

11 I did that in the Navy primarily with  
12 a national security focus, and it's just great to  
13 be here and have the focus expanded because I, we  
14 work with the Navy for a national security  
15 emphasis, but we also work for the country for an  
16 economic security piece.

17 There's a homeland security piece with  
18 respect to natural disaster response. And then,  
19 there's natural resource security, which  
20 everybody in this room clearly has a piece in.  
21 So, it's been great.

22 And I won't talk all about my career.

1 There's elements there. I worked on aircraft  
2 carriers, worked with Navy SEALs.

3 I just had a chat with Urban about  
4 that, and all really rewarding, and it taught me  
5 a lot about the practical aspects of applying  
6 earth sciences, and I'm working, I'm hoping that  
7 I can bring all that to bear in this position I  
8 have at NOAA.

9 So, what I'd like to do is just talk a  
10 bit about the priorities NOAA has for this  
11 administration, and what's behind them, some of  
12 the strategic drivers or imperatives. And then,  
13 and then, a little bit about going forward.

14 So, first off though, a couple of the  
15 sort of mega trends that are shaping where we  
16 want to go.

17 There clearly, there is an amazing  
18 advancement in technology, information  
19 technology, autonomous systems, machine learning,  
20 and genomics, bioengineering. It's just, it's  
21 incredible.

22 The left hand side here is a depiction

1 of something you might've heard of, the Kurzweil  
2 Curve, and it's sort of like Moore's law, but to  
3 another exponential. And it's not a, it's not a,  
4 like a hypothesis. We are rapidly approaching  
5 the capability.

6 So, this slide depicts, for \$1,000,  
7 what kind of computing capacity do we have and  
8 will we have as we grow in information technology  
9 capabilities?

10 And by 2050, we'll not only have, for  
11 \$1,000 on any, on my iPad, or a pad-like device,  
12 not only the ability to just, of one human brain,  
13 in terms of computational capacity, but actually  
14 every human brain on the planet.

15 That's the kind of computing capacity  
16 we're going to have, you know, in our generation.  
17 And that's, and then, along with these other  
18 advances in technology, which I use a book that I  
19 recently read that I advise you to look into.

20 Have you, anybody, raise your hand if  
21 you've heard of this author or read his work.  
22 So, you probably read his first book, Sapiens: A

1 History of Humankind. And a really insightful  
2 author, quite objective.

3 And this really paints the story for  
4 the future, best futurist book I've ever read in  
5 terms of really capturing the potential and  
6 possibilities.

7 Some are, I would say even  
8 frightening, but there's great opportunity as  
9 well.

10 And so, this is something, it's not an  
11 if, it's when, and it's happening fast, and we  
12 really need to harness it to stay ahead.

13 And so, it offers all sorts of  
14 opportunities for us as we move forward in terms  
15 of data collection and really optimizing our  
16 yields in our commercial fisheries, and really  
17 improving our stock assessments, and everything  
18 else we're doing as a, as an agency, in terms of  
19 weather and ocean prediction.

20 And so, that's one. The second piece  
21 that I've been watching in the Navy is the rapid  
22 expansion in our maritime domain of everything,

1 of all sorts of activity.

2 In the last 25 years, global shipping  
3 has increased by 400 percent. And that's just  
4 extraordinary. And with that, national economies  
5 like China, like ours.

6 And so, there's a lot of activity  
7 happening in the ocean and the coast, and then,  
8 more people are moving to the coast.

9 I mean, just within the last, I think,  
10 10 years, we've increased our coastal populations  
11 by about five million.

12 So, if you just keep on projecting,  
13 we're going to have a lot more people on the  
14 coast, and our coasts are getting more  
15 vulnerable, and we need to really look at  
16 resilience of our people and our fisheries with  
17 respect to that.

18 So, that's something I watched in the  
19 Navy, and it clearly affects NOAA in terms of our  
20 ocean prediction, mapping, exploration, our  
21 coastal zone management, and our resource  
22 management.

1           Another piece that we're watching is  
2 that, and I saw this in the Navy, is our  
3 competitors are catching up.

4           We don't have, as a nation, the  
5 absolute superpower status that we had, let's say  
6 25 years ago.

7           We, this country, China, this shows  
8 their Belt and Rod Initiative, where they're,  
9 they are, they say they're not trying to rule the  
10 world, but their actions say something different.

11           And this is a, they're, they've  
12 installed a base just a few miles from our base  
13 in Djibouti in Africa, and they're putting them  
14 all around that continent. And so, they're  
15 rapidly expanding trade.

16           They have investments over \$1 trillion  
17 this year in infrastructure in this region, and  
18 the Belt and Road, the first two is the Silk  
19 Road, so the land route for commercial trade.  
20 And the Belt is the ocean route.

21           But, not to pick it here, is they're  
22 also targeting the northern sea route in the

1 Arctic to expand their shipping and trade.

2 So, they're clearly going after us,  
3 and they're catching up quickly. Now, some  
4 people think, what's, you know, is that a bad  
5 thing?

6 In some ways, it is, because they're  
7 robbing from us all of our intellectual property  
8 across every discipline to achieve this status.

9 So, there's a competition going on  
10 here, and this administration's goal, which I  
11 applaud, is to retain our global leadership in  
12 all areas. Specifically for NOAA, resource  
13 management and environmental prediction.

14 But, so, this, that's just one area  
15 that aligned with where we're going after, where  
16 the administration is going after with respect to  
17 this.

18 It's also happening in a national  
19 security piece, which was the biggest imperative  
20 for me in the Navy, but it, again, it affects a  
21 lot of what NOAA does because we partner with our  
22 DoD. So, that's a big trend that's shaping our

1 direction.

2 So, here are the three priorities that  
3 we've articulated at a very high level, a lot of  
4 stuff below them. We're working on some of those  
5 details right now.

6 But the first one is, regards earth  
7 system observations and prediction. With a real,  
8 and it's just to retain our world leadership.

9 And in fact, for the weather modeling,  
10 we don't have a global leadership position. It's  
11 well-known that we're pretty much second or third  
12 to the European models, the ECMWF and UKMET for  
13 our weather model, our weather global model.

14 And so, that is a, our Secretary has  
15 clearly directed us to regain our world  
16 leadership in weather modeling.

17 I've kind of expanded that direction a  
18 little bit because it's, you can't, it's just not  
19 a weather model.

20 To have the best weather model, you  
21 have to have a couple ocean, earth, ice,  
22 atmosphere or system model, and that's what we're

1 moving towards, with the observation systems  
2 behind it.

3 You know, we've just launched our  
4 joint polar, our newest polar-orbiting satellite.  
5 It was a great accomplishment for the whole  
6 organization and for the nation.

7 That's going to really, it's going to  
8 rapidly improve our three to seven-day forecasts.  
9 Used by our nation, all sectors, as well as our  
10 military.

11 And we also launched a, previously,  
12 our geostationary satellite, the GOES-16. We'll  
13 have another GOES satellite launch in March. And  
14 so, really great advances.

15 And that's just the, kind of the  
16 flashy things. We also have this great network  
17 of ships, aircraft, buoys, unmanned, underwater,  
18 and aerial vehicles, all contributing to the data  
19 that's driving our model and our model  
20 improvements.

21 So, we are, for those local or even  
22 just, you can get online, but I'll have a piece

1 in the Washington Post in op-ed this week, that's  
2 going to talk about regaining our world  
3 leadership in this area.

4 And I'm excited about it because our  
5 experimental model already outclassed the  
6 European model for tracking Hurricane Maria, and  
7 we're going to transition that to operations as  
8 soon as we can and look to upgrade that to a next  
9 generation model suite.

10 Our political appointee for the  
11 assistant secretary for earth observations and  
12 predictions, so my counterpart for the dry side,  
13 is a guy named Dr. Neil Jacobs, a real expert in  
14 numerical modeling from the University of North  
15 Carolina. Works at Panasonic now.

16 And he's confirmed out of Committee.  
17 We'll see if the Senate can get him a full vote  
18 soon. But he's going to come on and lead this  
19 effort and do just terrific things.

20 So, very exciting, and I think we  
21 couldn't be at NOAA at a better time. Next off  
22 is related to it.

1           So, the first priority talks a bit  
2 about our modeling and prediction capability and  
3 the observations behind it.

4           This talks about that sort of last  
5 step, and that is working with decision makers to  
6 minimize the impacts of extreme weather and water  
7 events.

8           And a lot of this is driven by a  
9 recently passed law, the Weather Research and  
10 Forecasting Innovation Act, a mouthful, signed by  
11 the President in April.

12           And it's a law that really provides  
13 specific authority and direction for us to do the  
14 things it takes to improve our modeling and the  
15 decision support.

16           And I tell you, our weather service  
17 just had a home run year this year. In 2017,  
18 we've gotten to a point, you know, in 10 years,  
19 you know, like during Hurricane Sandy, we did not  
20 do well. Our model didn't perform well.

21           And we were more in a mode of what I'd  
22 call in the Navy fire and forget forecasting.

1 Right, we would just, here you go, good luck with  
2 it.

3 And that really didn't do a lot for  
4 emergency managers and first responders. But we  
5 are at this point now where we have  
6 institutionalized processes where a week or more  
7 out, we're embedded, our forecasters are embedded  
8 with emergency managers in their operation  
9 centers, and they're getting the whole population  
10 engaged, either preparing or sheltering or  
11 evacuating on time.

12 So, take this statistic. In 2005,  
13 Hurricane Katrina hit the Gulf Coast, along with  
14 Rita and several others, and the statistics for  
15 that year, it was a pretty heavy year, we had  
16 about \$159 billion in damages, and a loss of life  
17 of about, nearly 1,300 people.

18 So, take that this year. We had  
19 hurricane damages that doubled that. The damage  
20 to property doubled it. But the loss of life was  
21 a fifth of what we saw in 2005.

22 So, here we had this great excessive

1 property damage, but we actually saved a lot of  
2 lives because people were more prepared.

3 And we're going to keep doing that and  
4 keep getting better, all with the goal to  
5 minimize, and actually really have zero loss of  
6 life, if possible. And we're on a trend to get  
7 there.

8 We can't prevent the storms, but  
9 through resilience actions, preparedness, we can  
10 certainly minimize the damage and loss of life.  
11 So, great opportunities here. Again, exciting  
12 time for NOAA.

13 The third piece is something you're  
14 all interested in, and that's about looking at  
15 all our ocean and fisheries resources, and really  
16 maximizing the sustainable economic contributions  
17 of them. And that's sort of depicted here.

18 The sort of different sectors on the  
19 right is sort of recreation and tourism. Our  
20 National Marine Sanctuaries are a great avenue  
21 for that.

22 One statistic I read, I think it was a

1 Thunder Bay sanctuary, pulls in like \$100 million  
2 in tourism.

3 I know, I'm a scuba diver, and every  
4 time I've gone on a trip, I've paid a pretty  
5 penny to do that. But, so, that's great.

6 And so, we're increasing local,  
7 helping local economies through tourism,  
8 recreation, things like that.

9 On the right, I've depicted all the  
10 different sort of industrial sectors that we are  
11 working to promote, because they all depend on  
12 our data.

13 So, it's shipping, our U.S. ports,  
14 it's energy opportunities, it's, you know,  
15 potential commercial opportunities in terms of  
16 resource extraction. All, though, done  
17 sustainably through our advisement and  
18 information.

19 And I mean there's great things  
20 happening already. U.S. ports pull in something  
21 like, or they see trans-shipment of over \$1  
22 trillion worth of goods every year.

1           It's a pretty huge piece, when you  
2 think that our whole entire U.S. GDP is about \$18  
3 trillion, that's a large part of that.

4           So, something we can increase through  
5 our information to optimize, for example,  
6 carriers. Not aircraft carriers.

7           Carriers of shipping and trade, and  
8 optimize their routes and, because they're all  
9 about time. Time is money. And so, we have, we  
10 have a great opportunity here.

11           And in the middle, of course, is what  
12 we're, this day is about, and tomorrow, and  
13 that's our fisheries, and really maximizing the  
14 potential there through wild caught, commercial,  
15 recreational, as well as aquaculture, which, I  
16 believe, you'll talk about tomorrow, Paul. Yes.

17           DR. DOREMUS: We also covered some of  
18 that this morning.

19           RDML GALLAUDET: Good. So, really  
20 excited about that. Now, couple specifics about  
21 fisheries now, and just to share with you.

22           First off, and I think you're just all

1 well-steeped in this, but something that I come,  
2 as a newcomer, is how pleased I am to see where  
3 we are compared to when I entered the Navy in the  
4 '80s, and our fisheries were in steep declines.

5 It was really a, kind of sad time for  
6 our nation in terms of our natural resource  
7 position or posture. But we've gotten smart over  
8 time, and I've enjoyed watching that.

9 That's why it's so terrific to come to  
10 NOAA right now is I've seen us rebound, our  
11 stocks rebound, and a lot of the conservation  
12 work we do just really take off, and our whole  
13 public is behind it.

14 And so, these are the reports that  
15 Chris's team has released. And what this  
16 administration and this Secretary, Secretary  
17 Ross, who is worth \$2.5 billion, by the way, he's  
18 very keen on the economic impacts of our  
19 fisheries.

20 And they're significant. You know, I  
21 think we, job creation, economic growth. Huge  
22 priority for this administration. And so, our

1 fisheries can contribute a big piece to it. And  
2 then, there we go.

3 So, Chris, you own this, and I'm sure  
4 this will be, elements of these will be  
5 discussed. Just, I want to highlight the success  
6 of you and your team.

7 Then, a part of this, our whole  
8 approach though, and it's a priority for the  
9 administration, that three of the top priorities  
10 of the administration are national security,  
11 which is a challenge for NOAA right now because  
12 even though we support it, the President's budget  
13 submission was \$1 billion less than last year.

14 But, why? Because we're paying, we're  
15 paying some long overdue bills that DoD needs to  
16 pay. So, their budget submission was higher.  
17 And I, you know, I agree with it.

18 I told you about our competition. I  
19 didn't address North Korea, Iran, China, and  
20 Russia, in terms of their militaries, but they're  
21 countering us every day out forward, and we don't  
22 want them to do that on our shores. So, that

1 money will be well-spent.

2 So, we just need to find ways to do  
3 what we do better and smarter, for less cost.  
4 Now, granted, if Congress steps in and decides to  
5 restore some of those funding, you know, programs  
6 for us, I won't complain. I'll happily execute  
7 them. But that's sort of where we stand.

8 I support the President's budget, and  
9 we're going to do the best we can with what we  
10 have. But here we go.

11 Part of this, the second priority is,  
12 national security is first, and it's  
13 deregulation. And the third is economic growth,  
14 and they're really all equal.

15 So, the deregulation piece of this is  
16 not, like, we don't want to go wild west again  
17 and return to where we were in the '80s for our  
18 fisheries.

19 It's, what I know, well, we'll be  
20 talking about here more, and that's improving our  
21 data collection and science to optimize our  
22 yields of every stock so that we can most

1 sustainably move forward and keep the economy  
2 thriving in those industries. And so, this is  
3 allowing for it.

4 It's very science-based database, kind  
5 of paring down of the current regulatory  
6 framework.

7 And so, Chris's team, I've been  
8 following this. You know, he's got like 60  
9 actions every day, and I'm tracking on various  
10 rules being made, and it's great work just to  
11 really make more informed decisions. Okay.

12 Also, aquaculture, as I talked about,  
13 the Secretary, and you may have mentioned this,  
14 Paul, but you know, he, something just doesn't  
15 sit right with him, and I can't blame him, is  
16 that we have this \$14 billion trade, seafood  
17 trade deficit.

18 But we have the second largest EEZs in  
19 the world. And you know, the most expertise and  
20 capability. It just doesn't sit right. So, we  
21 have an opportunity here.

22 We have some of the world -- we have

1 world leaders in the industry and in the science,  
2 and we can bring that to bear to really eat into  
3 that deficit through increasing our aquaculture  
4 capabilities.

5 I know many of you in the room -- I've  
6 looked through all your bios, and we have a  
7 number of, I think, Maine and Washington  
8 aquaculture representatives.

9 So, thank you, in advance, for your  
10 help in advising us on how to move forward as  
11 swiftly as possible.

12 Then, lastly, two things that are in  
13 these reports, and I'm just sort of repeating  
14 myself here, but we've got \$200 billion worth of  
15 an industry here that we can clearly grow, along  
16 with a million and a half jobs.

17 But again, as more people move towards  
18 the coast, this, these are numbers we can, we  
19 can, we can punch up.

20 And so, that's what I'm kind of  
21 looking for your help in is advising us how to do  
22 that while conserving the resource.

1           So, lastly, I want to just share a  
2 thought with you. Thank you for your report, by  
3 the way. It was all, everything we're trying to  
4 do.

5           So, to have you send that to the  
6 Secretary carried a lot of weight because he's  
7 looking to, he's looking for expert advice  
8 outside of the government, because that's where  
9 he came from, and so, this was valuable for us in  
10 our efforts.

11           And so, this whole thing, this idea  
12 that I've been pitching within NOAA, I call it a  
13 National Marine Moonshot, in terms of just the  
14 big idea.

15           Don't confuse it with a, you know, a  
16 \$100 billion program to get someone to the moon.  
17 We don't have that money.

18           The moonshot idea though is that it's  
19 going to be a large, integrated across NOAA and  
20 the government, effort to find ways to rapidly  
21 accelerate our Blue Economy.

22           You know, one, a statistic I'll share

1 with you. You've got all the fishery statistics.  
2 Our national ocean observing industry is about a  
3 \$7 billion effort, and mostly servicing the  
4 offshore sector, but somewhat, we leverage some  
5 of that commercially for our fisheries and ocean  
6 observations.

7 And that's, again, more people getting  
8 near the cost, more people start engaging in  
9 marine-related activities. That is, those are,  
10 those are industries that can expand.

11 And so, I want to think about a real  
12 targeted way that we can expand the various  
13 economic sectors I talked about, tourism,  
14 shipping, trade, defense, energy, substantially  
15 within the next few years by informing them and  
16 giving them better information about the ocean  
17 and coast.

18 And so, we're going to be developing  
19 this as we move forward, and we'll be looking  
20 forward to your help in executing this. All  
21 right.

22 So, with that, I want to thank you all

1 for what you do for NOAA fisheries. And yes,  
2 that is me. I have a 19 foot Bayliner. I love  
3 to get out on the water and I live right on the  
4 western shore of the Chesapeake.

5 And so, if not just for my position of  
6 authority, certainly my position, geographically,  
7 I thank you all for what you do. And with that,  
8 I'll take any questions.

9 CHAIR BEIDEMAN: Okay. Julie.

10 MEMBER BONNEY: So, knowing that  
11 you've been involved with the oceanographic  
12 issues for a long time, and all the weather  
13 patterns and whatnot, and then seeing the  
14 administration's view on climate change, I was  
15 wondering how you reconcile those differences.  
16 And I'm going to give you an example of what  
17 happened in my region. I --

18 RDML GALLAUDET: Alaska, right?

19 MEMBER BONNEY: Yes. I live in the  
20 Gulf of Alaska on Kodiak Island, which is the  
21 size of New Jersey, which I just learned the  
22 other day.

1           But we had a major collapse in our  
2 Pacific cod stocks because of the warm blob on  
3 the Pacific coast that entered the Gulf.

4           And so, the actual quota is going from  
5 88,000 metric tons down to 18,000 in one calendar  
6 year.

7           So, the management structure is  
8 adapting to the result for the fish stock, but in  
9 terms of what the carbon footprint and all the  
10 other things on a national level, it seems to me  
11 that that needs to be part of the strategy for  
12 NOAA and NMFS, in terms of how we move forward  
13 today. So, I was just wondering if you could  
14 respond to that question.

15           RDML GALLAUDET: I sure can. So,  
16 that's, so, my last job, I was oceanographer for  
17 the Navy.

18           I also directed a task force the Navy  
19 had established when I was a Captain, and it was  
20 the Navy's task force Climate Change. And our  
21 main purpose was to address changes in the  
22 Arctic.

1                   And you saw that picture of me in the  
2                   Chukchi Sea, and I was on a submarine there in  
3                   March of 2016, and the submarine officers -- just  
4                   as an anecdote -- are kind of flipping out right  
5                   now because they have never seen such dramatic  
6                   changes in the Arctic after operating there for  
7                   50 years.

8                   You know, the ice is much more  
9                   dynamic. It's thinner, and so it creates the ice  
10                  keels -- kind of like inverted mountains of ice -  
11                  -- that they have to sort of maneuver around, and  
12                  it's tough, because it's shallow water there.

13                  And so, they're, and then, we're, the  
14                  Navy and NOAA are helping advise them on that ice  
15                  movement in our models, and we have a national  
16                  NOAA center that's a joint effort in Suitland,  
17                  Maryland, by the way.

18                  If you're interested in that, you  
19                  should go visit. Have you been there? Oh, it's  
20                  definitely relevant to your area. So, that was  
21                  just a quick introduction on that.

22                  But, so, I understand and accept

1 climate change as being real, and that there's a  
2 human contribution to it.

3 And NOAA will continue its climate  
4 monitoring and assessment missions. We have a  
5 climate program office, and there are research, a  
6 line office. And they're going to keep doing  
7 great work.

8 They just released a, helped release a  
9 climate science special report. They're working  
10 on the National Climate Assessment, and all  
11 valuable information our nation needs to inform  
12 future plans.

13 As far as, and NOAA will continue it,  
14 and I do expect fisheries to factor in those  
15 anticipated changes in their management, and  
16 you're already doing it actually, because you're  
17 seeing different stocks migrate, like off the  
18 east coast especially. They're having trouble  
19 with that.

20 So, all that said, now, when you, when  
21 say, oh, okay, the administration is, there's  
22 really no, that's just not a priority to them.

1 They have prioritized, they have prioritized, or  
2 we have prioritized that weather forecasting out  
3 to two years. So, seasonal and sub-seasonal.

4 Climate monitoring is, we'll still do.  
5 But the priority, and I'll go back to this,  
6 because I have to say, with my experience and  
7 observations of climate, climate change, and  
8 impacts. Let me go back here.

9 They're important, but it's the  
10 weather, the near term weather forecasting  
11 capability that's going to save lives.

12 Now, granted, there's a climate piece  
13 to that. You know, storm frequency increasing in  
14 certain regions, storm intensity, that is. Maybe  
15 not frequency. Roger that. That's important to  
16 know.

17 But I think, I personally believe the  
18 pendulum swift, shifted a little too far on the  
19 climate emphasis where we really need to focus on  
20 our near term weather.

21 That's why, let's just first get the  
22 best in the world weather model, and then we'll

1 start, and that will help improve the framework  
2 and the, all, the whole infrastructure to do  
3 better climate monitoring and assessment. So,  
4 both are underway.

5 They're parallel efforts, but you  
6 know, so I'm not disregarding it. The climate is  
7 wrapped up into this priority. Does that answer  
8 your question?

9 MEMBER BONNEY: Partially, I think.

10 (Laughter.)

11 MEMBER BONNEY: I guess the only  
12 comment I would add is forecasting climate, and  
13 you know, saving lives is important, but also  
14 climate affects economies.

15 And so, I don't know how we preserve,  
16 for the Gulf participants, whether the fish is  
17 migrating up the coast or whether the fish is  
18 collapsing because of recruitment events that  
19 affects economy. And I don't know how we wrap  
20 that into a policy for NOAA.

21 RDML GALLAUDET: So, I acknowledge  
22 that, and that's why we're continuing our climate

1 monitoring and assessment work, because it,  
2 there's a clear economic impact. So, I'm not  
3 dismissing that at all.

4 I'm saying, I don't, we didn't  
5 articulate climate as a standout priority. We  
6 believe it's rolled up into this larger,  
7 minimizing the impacts of extreme weather. Okay?  
8 Thanks.

9 CHAIR BEIDEMAN: Harlon.

10 MEMBER PEARCE: Great presentation.  
11 I'm not as smart as my Naval graduate sitting  
12 next to me, so he went through the Academy as  
13 well.

14 So, I enjoyed the Kurzweil Curve that  
15 you put on this, you know, I just wish you could  
16 get that a little faster than it does right now.  
17 You know, because part of our problem here is  
18 data and understanding and knowledge.

19 And we're very big on MAFAC with the  
20 development of better data collection processes  
21 and things to measure our fisheries by so we  
22 understand what's going on.

1                   So, you would be, you would be  
2                   impressed with how we feel about that and how  
3                   we're going to work towards that.

4                   We've got meetings this afternoon that  
5                   are going to push it even harder at the council  
6                   level and different ideas to help you solve some  
7                   of those problems.

8                   And I really like your aquaculture  
9                   ideas and get through the bureaucratic mess that  
10                  we're in right now and get the permits easily  
11                  solved. Get people in the water and get things  
12                  done.

13                  So, the things that you're doing are  
14                  going in the right direction. Just that you've  
15                  got to get that Kurzweil Curve a little quicker  
16                  for me, okay?

17                  (Laughter.)

18                  RDML GALLAUDET: Aye-aye, sir. I got  
19                  that. And thank you. By the way, I lived in  
20                  your -- Harlon, Louisiana, right?

21                  I lived in your great state for two  
22                  years, and I very much appreciate their natural

1 resources there. And so, but yes.

2 We are working to get faster. I think  
3 one way we can do that is through partnering more  
4 with the private sector in terms of technology  
5 developments and transition.

6 You know, I, in previous versions of  
7 this brief, I showed a curve, and what's  
8 interesting about the pace of research funding  
9 and results is that federal funding for basic  
10 research is sort of, like, teeing off, whereas,  
11 the private sector, their funding for research is  
12 increasing exponential.

13 And so, you know, I think we need to  
14 really harness that. It's very clear to me, and  
15 it came from my defense experience that industry  
16 was outpacing the DoD.

17 They were much more agile. They were,  
18 and they were finding out things that we just  
19 were finding out after.

20 And so, that harnessing that, and the  
21 Navy, the Navy actually, or the Defense  
22 Department still have these things called Defense

1 Innovation Units.

2           There's one in Boston, Austin, Texas,  
3 and Silicon Valley. And they're these centers  
4 that were, whenever cutting edge technology was  
5 being developed in the private sector, they would  
6 capture what was applicable to the DoD, and  
7 basically vector it into a, our military  
8 programs. And so, we're going to look to do  
9 something like that.

10           MEMBER PEARCE: Just as a follow-up to  
11 that, you know, you're correct. And one of the  
12 things we're looking at clearly is to take  
13 advantage of that data that you're talking about  
14 right now that, not necessarily NOAA data.

15           And to integrate that into our thought  
16 process as we go, and make sure that we get all  
17 the knowledge that we can, ahead of Kurzweil's  
18 Curve, of course, so we can do our job in a  
19 better way.

20           And you know, we don't have, in the  
21 Gulf, I'm sure, we don't have a science and  
22 technology center in the Gulf.

1                   And we were looking at developing ways  
2 we might be able to do some of that so we could  
3 tie those better universities together into one  
4 thought process that feeds to the complimented  
5 process to help us get more data and put it  
6 altogether.

7                   So, we're thinking the same way as  
8 what you're talking right now. So, I'm glad to  
9 hear what you're saying.

10                  RDML GALLAUDET: Great. Thank you.

11                  CHAIR BEIDEMAN: Roger.

12                  MEMBER BERKOWITZ: Admiral, I very  
13 much appreciate your excitement about the new  
14 technology.

15                  And wondering a little bit as a  
16 follow-up on what Harlon said. I'm wondering if  
17 some of this new technology that's out there --  
18 either in the private sector or some of the  
19 technology developed by NOAA -- can be  
20 implemented in terms of a fish doc assessment, in  
21 terms of timeliness and accuracy.

22                  It seems that, you know, you know,

1       whether it's sonar, there's just so many  
2       different technologies coming onboard, and it  
3       appears to someone on the outside that the stock  
4       assessment process has sort of been the same,  
5       relatively speaking, for a long period of time.

6                 And if we want to sort of, you know,  
7       sort of jump start, you know, the fisheries, the  
8       economy, one of doing it certainly is better data  
9       so that we can nimbly act on it or not act on it.

10                I don't know if there's more fish or  
11       less fish, but the more we know, the better  
12       decision making we can do.

13                RDML GALLAUDET:  Yes, sir.  And by the  
14       way, I absolutely love your chain of restaurants.  
15       Legal Sea Foods, correct?

16                MEMBER BERKOWITZ:  Yes.  Thank you.

17                RDML GALLAUDET:  Our family are big  
18       fans.  How about that?

19                MEMBER BERKOWITZ:  Appreciate it.  
20       Thank you.

21                RDML GALLAUDET:  So, absolutely.  And  
22       my answer is why not?  I mean, you look at the

1 all the capabilities out there, in fact, I got a  
2 great report from our fisheries folks. Somebody  
3 on your team, Chris.

4 We were, we have to monitor marine  
5 mammals in various places, and we were able to  
6 demonstrate the use of unmanned aerial vehicles,  
7 or drones, to do these monitoring of, Lindsay,  
8 where are you? What kind of, leopard seals.

9 And it was, it was saving, you know,  
10 what would take six people on a boat hours, they  
11 were doing it in 20 minutes with two people. And  
12 so, this is, it's there. There's no research  
13 that needs to happen. It's there.

14 And with, you know, automation and  
15 machine learning, who here has written computer  
16 code? Okay, good. There you go. That counts.

17 (Laughter.)

18 RDML GALLAUDET: It better. Our  
19 experimental model is in FORTRAN. No, but you  
20 know, so, it's a -- the capabilities are endless.  
21 And so, and they're here now. So, absolutely.

22 And we're, Chris has working very

1 aggressively towards that. And you want to  
2 comment on that, Chris?

3 MR. OLIVER: I just, I did want to add  
4 a comment, and you might hear some of this more  
5 tomorrow from Cisco. I don't know if Cisco's  
6 going to speak to this.

7 Some of the eDNA work where they're  
8 actually measuring molecules in the water column  
9 that can actually give you presence.

10 Presence, absence, and perhaps even  
11 magnitude, or volumes of fish, different species'  
12 presence. That kind of thing.

13 We're not, it's not going to be  
14 tomorrow where that's perfected. But it's on the  
15 foreseeable horizon.

16 And I got a presentation, a couple of  
17 different presentations when I was in Seattle  
18 last week from some of our Science Center folks.

19 Some of the traditional acoustic and  
20 sonars that are done from the vessels shooting  
21 down where they're now mounting units on the sea  
22 floor that shoot up at a significantly lower cost

1 than would be involved in ship time.

2 And things like the sail drones that  
3 can literally cruise around in the Bering Sea in  
4 30, 40 foot seas, and take all kind of different  
5 oceanographic measurements.

6 And they're not free, but when you  
7 look at steady or declining budgets, the aging of  
8 our fleet, we've got to really spend a lot of our  
9 effort on realizing those opportunities for that  
10 kind of new technology, and being able to  
11 implement it on other platforms like our fishing  
12 vessel platforms to become a more efficient way  
13 to get some of our basic science and research,  
14 but also advance it into some of these more  
15 advanced technologies, too.

16 So, there's -- I hope Cisco's going to  
17 talk to you all about some of that tomorrow  
18 because it's really interesting.

19 RDML GALLAUDET: Yes. And I'll  
20 actually add, pile onto you piling on there,  
21 Chris, and that's, so I graduated from Scripps  
22 with a PhD in 2001, and I did my work using

1 multi-beam sonar to map the sea floor and other  
2 things, and fish. And that was -- that was  
3 almost two decades ago.

4 So, we had the techniques to estimate  
5 biomass then. So, and now we're, we advanced,  
6 and this goes to you, how do we move this fast?

7 We have the technology. We've just  
8 got to transition it and move it into operations.  
9 And so, we are targeted towards that. Great  
10 question. Thanks.

11 CHAIR BEIDEMAN: All right. We have  
12 quite a queue, and I'm told that we have five  
13 more minutes. So, we'll have --

14 RDML GALLAUDET: We have time. I  
15 mean, I think we have time, don't we? So, I have  
16 time --

17 CHAIR BEIDEMAN: Okay.

18 RDML GALLAUDET: -- if you do.

19 CHAIR BEIDEMAN: Additional five  
20 minutes. Okay. Rai was next in the queue.

21 MEMBER ESPINOZA: Thank you, Terri.  
22 Thanks for taking the time for being here. We

1 know you're very busy, and we really appreciate  
2 the presentation. It was really great. I really  
3 appreciated your response to Julie's climate  
4 question.

5           It's very rare that folks make the  
6 distinction between climate and weather, and  
7 that's something, you know, for folks that work  
8 in climate and resilience building, it sometimes  
9 becomes a pet peeve that we address that climate  
10 long-term weather, near-term, and how do, and  
11 your answer about minimizing the extreme weather  
12 affects the impacts and the water events is  
13 really important, how that affects coastal  
14 communities.

15           Fisheries as well because it's  
16 something that, from what I'm hearing, what you  
17 said, it really does address certain of the, of  
18 the concerns that folks in the NGOs and in  
19 coastal communities have on the long-term impacts  
20 of climate change, but today, of course. So, I  
21 really did appreciate your response.

22           I think that prioritization and that,

1 you know, outlining that climate is not the  
2 priority right now with modeling, and really  
3 pinning down the weather events and getting that  
4 a better precise scale in the modeling is really  
5 important because it does help out with planning.

6 So, and everything that's associated  
7 with planning for extreme weather events. So, I  
8 really appreciate that, and I think that's one of  
9 the best response I've heard from somebody in a  
10 high level position. So, you know, thank you  
11 very much for that.

12 RDML GALLAUDET: Thanks, Rai. I  
13 appreciate that. So, first, I have a question  
14 for you. So, in the bios that I read of  
15 everybody, you're holding a gator or a croc?

16 MEMBER ESPINOZA: Okay, that's  
17 neither. That's --

18 RDML GALLAUDET: Oh.

19 MEMBER ESPINOZA: That's a Cuban  
20 crocodile.

21 RDML GALLAUDET: What are they called?

22 MEMBER ESPINOZA: Well, it's a Cuban

1       croc, it's a crocodile, but it's an endemic  
2       species in Cuba.  So --

3                   RDML GALLAUDET:  Oh, that's great.  
4       So, when I lived in Louisiana, there was all  
5       sorts of gator farms there, and they're great to  
6       go to with your kids.  But thank you for your  
7       response there.

8                   You know, my heart goes out to your  
9       state.  Puerto Rico, correct?  And I'll tell you  
10      this.

11                   All the words I said about NOAA  
12      improving and getting better and saving a lot of  
13      lives, you know, don't get me wrong.  I  
14      acknowledge wholeheartedly the suffering that's  
15      occurred, especially in Puerto Rico, of hundreds  
16      of thousands, millions of people that were  
17      impacted by the hurricanes this year.  So, I'm  
18      not dismissing that in any way.

19                   In fact, my house was washed away  
20      during Hurricane Katrina.  I mean, and everything  
21      in it.  There was nothing left.  So, we lost it  
22      all.

1                   And, now, I'll tell you, I was, I  
2 think our family's better because of it. It made  
3 us grow stronger. We appreciate the things that  
4 really matter.

5                   But then again, I totally -- I  
6 sympathize with that kind of suffering. So, I  
7 wish, you live there still?

8                   MEMBER ESPINOZA: Yes.

9                   RDML GALLAUDET: Yes. So, you're  
10 living it. And so, I wish you all the best. I  
11 hope that NOAA's doing everything we can in the  
12 recovery efforts. I believe we are. If we're  
13 not, let me know.

14                   MEMBER ESPINOZA: Well, from my  
15 experience directly, NOAA has been doing a really  
16 wonderful job, especially where I live, it's been  
17 doing a really great job.

18                   All the agencies that I, U.S. Coast  
19 Guard, all the ones that I have seen personally,  
20 and worked with have done an amazing job. So, I  
21 really applaud it, and thank you for what they've  
22 done.

1 RDML GALLAUDET: Thanks. Well, best  
2 of luck to you and everybody you know. Okay.

3 CHAIR BEIDEMAN: Mike.

4 MEMBER OKONIEWSKI: Thank you. Two  
5 questions, actually. I'll just rattle them both  
6 off.

7 One is, with the advance of artificial  
8 intelligence, do you, there's been conjecture  
9 that I've heard on, from other people writing  
10 futurist type stuff, that at some point, we're  
11 going to be manufacturing a lot more, it'll be  
12 cheaper actually to manufacture without the  
13 transportation and the carbon footprint.

14 Do you see that the amount of shipping  
15 going down in the future because of that kind of  
16 factor, or just increasing because the exchange  
17 of raw resources and that kind of stuff?

18 RDML GALLAUDET: Shipping?

19 MEMBER OKONIEWSKI: And --

20 RDML GALLAUDET: Yes, go ahead. Next  
21 one?

22 MEMBER OKONIEWSKI: The second one is,

1 one environmental group, that I won't name, but  
2 has done a, more of a feed the world population  
3 type study, and actually been pretty active in  
4 that.

5 And they said in their projections,  
6 and using some scientists they have, that the  
7 wild fishery component could double the amount  
8 of, if they were managed like United States and  
9 New Zealand, in other words, if there wasn't, you  
10 know, all the, you know, the practices that there  
11 shouldn't be going on in the world, if we could  
12 recover those stocks in many of the countries.

13 But I know that's a pretty lofty  
14 projection, and I've heard 10 percent, I've heard  
15 50 percent, and you know, actually doubling.

16 But in your chart you had there, down  
17 at the bottom, it shows more or less a steady or  
18 even a slight decline in the wild fisheries  
19 resource production.

20 I think it's around 90,000 metric, or  
21 90 million metric tons now. And if you care to  
22 comment on that --

1 RDML GALLAUDET: Well, first let me  
2 talk about shipping and AI.

3 MEMBER OKONIEWSKI: Okay.

4 RDML GALLAUDET: We're kind -- we're  
5 kind of there already, I think. You look at the  
6 shipping industry here, you know, the bridge of,  
7 on ships like that usually are manned by like one  
8 person at sea, and then maybe they'll throw on  
9 two people during a, you know, in port. So, it's  
10 a, we're pretty much there.

11 And you know, I'm sure in the next, by  
12 the end of the century, we might be entirely  
13 automating global shipping. I mean, or some  
14 part of it.

15 I mean, I think things like fisheries  
16 are still going to have people in the loop. But  
17 yes, but I think we've already come a long way.  
18 We're about, we've kind of optimized there. Now,  
19 yes.

20 MEMBER OKONIEWSKI: To be clear, I was  
21 actually talking about manufacturing in the  
22 United States because of the artificial

1 intelligence --

2 RDML GALLAUDET: Oh.

3 MEMBER OKONIEWSKI: -- relieving the  
4 need for as much shipping as is going on  
5 presently.

6 RDML GALLAUDET: Oh, okay. Thanks.  
7 I, thanks to clarify. Well, there is great  
8 potential there. You're right.

9 A lot of people are sort of concerned  
10 that all this AI is going to remove jobs, but the  
11 reality is you, as technology is advanced, to an  
12 amazing degree, I graduated from the last Naval  
13 Academy class. What year were you?

14 MEMBER OKONIEWSKI: '66.

15 RDML GALLAUDET: Okay. A little  
16 before me.

17 MEMBER OKONIEWSKI: That's the last  
18 class.

19 RDML GALLAUDET: Okay, yes.

20 (Laughter.)

21 RDML GALLAUDET: Yes, sir. But to  
22 have, to not have a personal computer issued to

1       them.  Every class after me had a personal  
2       computer.

3                   And so, I went from typing on an IBM  
4       thing like that, my term papers, to now, you  
5       know, doing everything on my iPad, and it's just  
6       all, and the whole world's there.  The whole  
7       world's accessible.

8                   So, I think we'll be there in U.S.  
9       manufacturing, but it will create other types of  
10      jobs in terms of the design, the management, the  
11      engineering, and the, and the spinoffs that will  
12      occur in either recreation.  So, that's just, not  
13      really, you didn't ask me that question.

14                   So, the answer is, yes, I think that's  
15      going to happen, but I don't see that as job  
16      loss.  It's going to be job transition, if you  
17      will, or transfer.

18                   The other thing about, you were  
19      saying, was your question about wild caught fish  
20      and the fact that they're, is it this graph that  
21      you were asking about?

22                   MEMBER OKONIEWSKI:  I guess what I was

1 looking at is if we worked as a planet to manage  
2 our fisheries much more like we do in the United  
3 States, in some peoples' estimation, we could  
4 double, potentially, the world output of  
5 fisheries' products from wild fish alone.

6 RDML GALLAUDET: Right. So, do you,  
7 are you asking my opinion of that?

8 MEMBER OKONIEWSKI: Well, the chart  
9 doesn't exactly go that direction, so I was just  
10 curious.

11 RDML GALLAUDET: Oh, well, not our  
12 chart. I don't who, Chris, how credible is the  
13 World Resource Institute?

14 (Laughter.)

15 RDML GALLAUDET: No, but actually,  
16 that's a great point, Mike. I'd say though, and  
17 back me up, Paul, but I think we've been doing  
18 that in our international commissions, correct?

19 It's trying to get everybody to be  
20 like us so that we can raise the bar in terms of  
21 conservation and the yields in international  
22 fisheries, correct?

1 DR. DOREMUS: Yes, that's true. Then  
2 the highest number I've seen is 15 percent, in  
3 terms of increased use of wild capture fish  
4 stowed. So, even with, I'd be interested to see  
5 where you got that, what the source is.

6 Because we, you know, we want to  
7 understand what the potential is. But the trend  
8 has been fairly flat for decades using global  
9 fisheries data.

10 So, I think seriously bending it, and  
11 certainly anywhere close to doubling is pretty  
12 highly unlikely.

13 RDML GALLAUDET: Great questions,  
14 Mike. Thanks.

15 CHAIR BEIDEMAN: Peter.

16 MEMBER MOORE: Yes, hello.  
17 Congratulations. I'm really happy to have  
18 somebody who's got the ocean atmosphere interface  
19 at the helm.

20 RDML GALLAUDET: Thank you.

21 MEMBER MOORE: And I worked in the  
22 ocean observing business for about five and a

1 half years. Prior to that, I was in the  
2 commercial industry for almost 30.

3 And one thing that Roger brought up  
4 about moving the technology into stock  
5 assessments quicker, certainly it's happening.

6 But in addition to all the sort of  
7 technology, there are people involved in that.  
8 And there are some real leaders in the northeast.

9 I've been in the northeast now for  
10 about 20 years, who I see at the Northeast  
11 Fisheries Science Center really making a  
12 difference.

13 I know that Mike talks about Cisco all  
14 the time, and he's another one. But I just want  
15 to encourage you to keep an eye out for those  
16 leaders because they have a pretty challenging  
17 job, in my experience, to kind of move the  
18 institutional sort of stock assessment process  
19 from one of, you know, input output -- some could  
20 say garbage input output -- to more of  
21 integrating that information into the stock  
22 assessments.

1           And then, trying to get the management  
2 process to implement that is a whole other  
3 wicket.

4           And I will say that my experience has  
5 been that when there's trust on the part of the  
6 science -- on the part of the industry with those  
7 science people, when they become basically, you  
8 know, integrated, for lack of a better word,  
9 which you know is, you know, some people could  
10 construe as a conflict of interest.

11           But I really do believe that the  
12 fishing industry has the fine scale knowledge,  
13 that day-to-day experience on the water is very,  
14 very hard to come by, even with an instrument,  
15 much less a scientist.

16           And so, these cooperative research  
17 efforts that you guys support, I, 100 percent,  
18 think those are really important. Especially  
19 when the science side can bring some of that  
20 stuff to, like, the study fleet in northeast.

21           I don't know if you've heard about it,  
22 but the, it's part of the cooperative research,

1 and it's, you know, we're seeing some big changes  
2 for the better in that respect. So, I just  
3 wanted to thank you and keep an eye open.

4 RDML GALLAUDET: That's great, Peter.  
5 Thank you, and thank you for your service in  
6 NOAA. You were a federal employee with IOOS,  
7 right?

8 MEMBER MOORE: I actually have never  
9 been a federal or state employee, but I, it's a  
10 nonprofit association.

11 RDML GALLAUDET: Oh, okay.

12 MEMBER MOORE: Part of IOOS. I guess  
13 IOOS devolves it out to the regions.

14 RDML GALLAUDET: Yes.

15 MEMBER MOORE: One of the attractions  
16 for me was that I came out of the industry to  
17 work with the industry as a -- I guess I was a, I  
18 was part of a nonprofit at that point.

19 RDML GALLAUDET: Yes.

20 MEMBER MOORE: But yes, it's, we're,  
21 yes. So, we were, the idea is that IOOS gets the  
22 money out into the regions, supposedly where, you

1 know, you're down in the grass roots more. So,  
2 that's what that theory is. Yes.

3 RDML GALLAUDET: Well, thanks for your  
4 support.

5 MEMBER MOORE: Yes.

6 RDML GALLAUDET: That program is  
7 something I'm looking close at as a part of this  
8 Blue Economy initiative. And so, I appreciate  
9 the foundation you've established there.

10 But, and I haven't been up, the  
11 Science Center's in Gloucester, right? Is that  
12 what you're talking about?

13 MEMBER MOORE: In Woods Hole.

14 RDML GALLAUDET: Oh, Woods Hole.

15 Pardon me.

16 MEMBER MOORE: yes.

17 RDML GALLAUDET: Well, I will get up  
18 there soon, I hope. I've been up there before,  
19 but never to visit there and see exactly what  
20 you're talking about.

21 MEMBER MOORE: Yes.

22 RDML GALLAUDET: And I know that

1 overall it's something we want to embrace and  
2 move forward as quickly as we can.

3 And so, thanks, thank you for your  
4 confirmation on that. Looking forward to your  
5 advice on how to best do it.

6 MEMBER MOORE: Sure. Thank you.

7 CHAIR BEIDEMAN: Okay. Sebastian.

8 MEMBER BELLE: Good afternoon. Let me  
9 just start by saying thank you for your service,  
10 and thank you for your continued willingness to  
11 serve this country.

12 I'm not sure whether you deserve  
13 condolences, or -- but I take my hat off to you.  
14 And I just want to make a couple comments about  
15 aquaculture.

16 RDML GALLAUDET: Sure.

17 MEMBER BELLE: Not surprisingly, given  
18 my background.

19 RDML GALLAUDET: Maine, right?

20 MEMBER BELLE: Yes. So, we have 190  
21 family farms in the state, and we have 200 pre-  
22 revenue farms that have been started within the

1 last five years.

2 We've averaged about 8 percent growth  
3 over the last 20 years, even through a down  
4 economy.

5 So, there's a tremendous demand for  
6 domestically produced aquaculture products. And  
7 in our little part of the world, aquaculture has  
8 kind of become the new face of the working  
9 waterfront.

10 We're, many of, many of our members  
11 are the sons and daughters of commercial  
12 fishermen who haven't been able to get permits,  
13 and have used aquaculture as a way to continue  
14 that family heritage.

15 There are some great initiatives  
16 underway internally in the agency, and I want to  
17 particularly commend Paul and Michael Rubino for  
18 their leadership.

19 I think they've done tremendous work  
20 over the years, and are going to continue to do  
21 that.

22 And the one plea I would make is that

1 we are competing every day against producers in  
2 other countries that don't comply with the kinds  
3 of regulations that we do, that in many cases get  
4 very significant government subsidies, either  
5 directly for their business or for programs that  
6 support their business.

7 So, when you begin to think about  
8 aquaculture, don't just think about regulatory  
9 streamlining.

10 Think about it as your Moonshot  
11 program, and economic development. Think about  
12 water across departments, not just your  
13 department.

14 But in cooperation with all of the  
15 other federal departments, what are the ways that  
16 you can put programs together to reduce the risk  
17 for us, as domestic producers, and allow us to  
18 compete better in the international marketplace.

19 RDML GALLAUDET: That's a great point,  
20 Sebastian. In fact, I was just writing Lindsay -  
21 - who helped set up all this for me -- that, you  
22 know, I found of my slides around a date, and

1 they didn't include the seafood inspection and  
2 monitoring program efforts that we support.

3 And that, so that's a huge, huge  
4 element of what the, where the Secretary wants us  
5 to go. Because he's seeing the exact same  
6 problem in all sorts of other industries.

7 MEMBER BELLE: Right.

8 RDML GALLAUDET: And that it can now  
9 class us with their imports, and they're doing it  
10 unfairly. So, and we see fisheries in the same  
11 light.

12 And so, setting up the policies that  
13 will restrict that those, you know, unfair  
14 imports are things we want to prioritize. So,  
15 great contribution there.

16 CHAIR BEIDEMAN: Bob.

17 MEMBER RHEAULT: Welcome aboard.

18 RDML GALLAUDET: Thanks.

19 MEMBER RHEAULT: Thank you for your  
20 presentation here. I just, one of our jobs in  
21 the MAFAC is to make recommendations about the  
22 budget. And prior to 2010, a huge portion of

1 NOAA's budget was earmarks.

2 With the death of earmarks, one of the  
3 things that strikes us, strikes me every time we  
4 review the budget priorities and, you know, flat  
5 is the new normal.

6 We're not expecting any giant new  
7 money, but as someone from the private sector,  
8 I've always budgeted for trucks breaking down, to  
9 replace the computer, to fix the boat. And we  
10 don't have that in this budget.

11 It blows my mind that we don't budget  
12 for boats breaking and satellites ending their  
13 life span, and labs falling into the ocean.

14 (Laughter.)

15 MEMBER RHEAULT: And when these things  
16 happen, it's a crisis in NOAA's budget. And all  
17 the other groups that depend on NOAA funding take  
18 the hit.

19 RDML GALLAUDET: Yes.

20 MEMBER RHEAULT: I'm just curious how  
21 that's a sustainable model?

22 RDML GALLAUDET: It's not. It's not.

1 (Laughter.)

2 RDML GALLAUDET: And you know, so  
3 that's exactly correct. We want to do a couple  
4 things to address that. And really it is about  
5 allocation of resources.

6 Of course, everybody wants to do it  
7 all, and we really have to prioritize and see,  
8 what are we going to have to let go so we have  
9 the, we're more robust in these priorities?

10 Now, again, I mean, it'll be a sort of  
11 evolving dialogue with the administration and the  
12 Hill. And like it's happening now for the 2018  
13 budget.

14 What's nice is that some of the  
15 critical programs to these priorities are being  
16 supported on the Hill.

17 For example, we put together an  
18 aircraft and ship recapitalization plan for the  
19 reason you're saying.

20 We just had the Ron Brown, you know,  
21 blow out some generators, and she's going to be  
22 unavailable to do this really important cruise to

1 the Indian Ocean. Case in point.

2 But if we can recapitalize those  
3 assets that are being, you know, pushed beyond  
4 their service lives, then, and get the Congress  
5 to help us just like they helped us for hurricane  
6 forecast improvement.

7 After Sandy, we, it was a pretty  
8 strong signal that we had to get a lot better.  
9 And so, we got support from the Hill to increase  
10 the budget for our super computers.

11 And so, that's what we're going to be  
12 doing is taking the message forward. Personally,  
13 that whole Moonshot thing I put together, that,  
14 for me, is kind of strategic planning for our  
15 2020 and beyond budget submission.

16 I can't really do much to influence  
17 '18. We're already underway. We did get through  
18 a nice hurricane supplemental, which was helpful.  
19 But that mostly restores damage to our  
20 facilities.

21 2019, I think we're getting pass-backs  
22 today from OMB, and so there's not much more I

1 can do there.

2 But we have a real opportunity in 2020  
3 because unlike the '18 and '19 budgets, we can go  
4 to the Commerce Department and say, look, here's  
5 the economic case.

6 I won't say my predecessors didn't do  
7 a good job, but there's trust right now in the  
8 Commerce Department, and now, in their new  
9 political leadership, and so we're going to have  
10 that argument.

11 And I believe, after our aquaculture  
12 meeting, the Secretary's going to come around.  
13 It's going to be a tough one though.

14 He has to fund the 2020 census, which  
15 is already, you know, over-budget and behind  
16 schedule. So, that, you know, that's just one  
17 thing. And he was a former census taker, so  
18 we'll see how this goes.

19 But he gets the economic  
20 contributions, and that's what he's looking for.  
21 So, we're going to try to make the best case  
22 possible.

1                   Does that answer your question? Not  
2 entirely, I'm sure. What do you, well, there you  
3 go. All I can tell you is the truth.

4                   MEMBER RHEAULT: Well, you had a did a  
5 sustainable model, and the question is how do we  
6 get to a sustainable model, and I don't know that  
7 anybody has that answer. So, I wasn't really  
8 predicting that you would have the answer, so --

9                   RDML GALLAUDET: Well, I'll riff on  
10 that a little more. You know, but like I've  
11 alluded to, we have a lot going on in NOAA. And  
12 I'm pretty convinced that we can -- there are  
13 many efficiencies that can be made.

14                   I saw the DoD doing this for the last  
15 10 years. We were, we were having to do, you  
16 know -- we were budgeted for far less than we had  
17 to do.

18                   That's why we had two ship collisions  
19 that killed 17 sailors, is we were just not, our  
20 readiness levels were low. We weren't trained.  
21 We were just over task saturated.

22                   It's a sad story, but that's, you

1 know, at least I don't have to deal with that.

2 I'm, you know, I'm thankful.

3 I'm respectful for what the Navy has  
4 to deal with, but right now, I think our  
5 challenges are a lot less. Still, they matter,  
6 they're important.

7 And so, we're going to look to find,  
8 look at the data, the drones saving what six  
9 people had to do on a ship with only two.

10 That's the things we're going to be  
11 looking for for savings. All right. Sorry, Bob.  
12 I know you just wanted more money, but --

13 (Laughter.)

14 RDML GALLAUDET: Yes. Right. Right.

15 (Laughter.)

16 RDML GALLAUDET: Not the first  
17 conversation I've had about this.

18 (Laughter.)

19 CHAIR BEIDEMAN: So, I'm going to be  
20 next to last here. So, I just want to thank you  
21 very much for coming and spending extra time  
22 talking with us, and we look forward to seeing

1 you as often as possible at our meetings.

2 And you know, we have lots of  
3 questions, and I think we have some good ideas  
4 among the table.

5 We have a lot of good ideas on ways  
6 that we can utilize the public sector to be  
7 involved in helping do more with less, which has  
8 been the mantra for the past few years, and  
9 likely for a while.

10 But I appreciate your enthusiasm.  
11 It's rubbing off a little bit, and I appreciate  
12 it very much. And I'm going to give Chris next  
13 here, the last word.

14 RDML GALLAUDET: Thanks, Terri.

15 MR. OLIVER: I had an observation,  
16 Admiral. If you, can you go to your very last  
17 slide?

18 I, we were talking about your  
19 experience being, in your career, more on the,  
20 more in line with the dry side of NOAA, and  
21 perhaps a bigger learning curve on the wet side.  
22 But you're clearly a seasoned expert on how to

1 pose for a fish picture.

2 RDML GALLAUDET: That's right.

3 (Laughter.)

4 MR. OLIVER: You're holding that thing  
5 way out there.

6 RDML GALLAUDET: You caught me.

7 MR. OLIVER: The, it's a nice striper  
8 though.

9 RDML GALLAUDET: Yes, it is.

10 (Laughter.)

11 MR. OLIVER: No, I just, I wanted to  
12 say thank you on behalf of this group, and the,  
13 and your fisheries division for taking the time  
14 to come meet with us. And we really appreciate  
15 it.

16 And I have to confess, I have a new  
17 aspiration over the past few weeks, and that's to  
18 become near as good and engaging as a speaker is,  
19 that you are. So, thank you very much. It was  
20 great.

21 RDML GALLAUDET: Thank you, Chris. I  
22 enjoy it. I appreciate the opportunity. All

1 right. Well, thank you all. I hope you have a  
2 good afternoon.

3 CHAIR BEIDEMAN: So, we're going to  
4 take a 15 minute break and try to be back here at  
5 3:30, so it's not quite 12, I guess. Twelve  
6 minute break.

7 (Whereupon, the above-entitled matter  
8 went off the record at 3:18 p.m. and resumed at  
9 3:40 p.m.)

10 CHAIR BEIDEMAN: Okay. So, let's see.  
11 We have subcommittees and working groups, and  
12 because we have a lot of overlap, rather than  
13 doing them in two different rooms, we thought we  
14 might try to get them done.

15 But if it is the pleasure of the  
16 Commerce Subcommittee, and they don't want to be  
17 involved in the Resilience Working Group  
18 activities, then they can decide if they want to  
19 have the meeting in the other room.

20 Otherwise, yes. Well, we could  
21 actually vote whatever we want, and make Julie,  
22 she's going to wish -- do you have a preference,

1 any of you, or do you want to work on tasks? No?  
2 No, I was wondering if there was any, you know,  
3 if we're just going to go sequentially, or if  
4 people want to separate, and Julie isn't -- I  
5 mean, Julie isn't here.

6 MS. LOVETT: So, just one thing.  
7 Erika's making some final edits on the data  
8 report and needs a little bit more time before  
9 that is sent around.

10 I just sent the executive summary  
11 around. And I don't know if you would like to  
12 walk people through it, Terri.

13 That, you know, so we can see your  
14 thoughts and -- but the full question that you  
15 were asking is if the Commerce Committee would  
16 like to break out now, and it seemed there was  
17 agreement to potentially draft a letter related  
18 to aquaculture, and the aquaculture points that  
19 Michael Rubino raised earlier.

20 There's the option of doing that, and  
21 there is a second room that we can use, so we can  
22 split into two, or we can just work sequentially

1 through the various pieces.

2 CHAIR BEIDEMAN: So, I'm entertaining  
3 thoughts from members as to whether they would  
4 like to begin review of the executive summary  
5 document, which you just received the draft.

6 Or if the Commerce Subcommittee wants  
7 to separate, and I know that many of us are on  
8 the same. So, whatever's your pleasure on that.

9 MEMBER YOCHER: I'm personally  
10 interested in both, and so if you think there's  
11 time to do it sequentially, I think that would be  
12 great. But if Julie thinks she needs the working  
13 time, separate, you know, that's okay too.

14 MEMBER BONNEY: I guess my question  
15 is, and I haven't really looked at the agenda,  
16 are we going to get a second bite of the apple on  
17 these, or this our only opportunity?

18 COMMISSIONER LAWSON: Yes, there's  
19 breakout time for subcommittees and working  
20 groups. Tomorrow afternoon, we have on there for  
21 the Ecosystem Approach's Subcommittee, and the  
22 Recreational Fisheries Subcommittee.

1           You could have a small group dealing  
2 with aquaculture breakout at that time in  
3 addition to it, during that time.

4           MEMBER BONNEY: So --

5           COMMISSIONER LAWSON: Heidi, do you  
6 think that's a good idea?

7           MEMBER BONNEY: So, based on that, I  
8 think that we should, I'm fine with doing it all  
9 as a group. We'll make as much progress as can,  
10 and then we can circle back around tomorrow.

11          COMMISSIONER LAWSON: Okay. Everybody  
12 know what the plan is? You good? Erika missed  
13 it. Okay. So, I'm going to reiterate what our  
14 plan is for this afternoon.

15          On the agenda, we do have, since we  
16 only have two subcommittees that are scheduled to  
17 meet this afternoon, we are going to have them  
18 meet sequentially, which is open to all members.  
19 It's not just subcommittee members.

20          The first will be going over the  
21 Resilience Working Group Subcommittee work that  
22 you all have done, and towards the end of it,

1 Julie will lead out that discussion on  
2 aquaculture from today.

3 If there isn't enough time to complete  
4 the work of drafting an entire letter, that  
5 Subcommittee could meet tomorrow afternoon when  
6 the Ecosystem and Recreational Fishery  
7 Subcommittees are meeting. So, that is the plan.  
8 So, I will turn that over to --

9 CHAIR BEIDEMAN: Me.

10 COMMISSIONER LAWSON: -- you. You.

11 CHAIR BEIDEMAN: So, in your email,  
12 you should've received the message from Heidi.  
13 That would be --- I don't know, I'm assuming --  
14 which is a draft final report executive summary  
15 of the Coastal Resilience Working Group, which I  
16 drafted, but didn't get to send out until --

17 MEMBER BONNEY: So, Terri, can I just  
18 clarify what our task is --

19 CHAIR BEIDEMAN: Yes.

20 MEMBER BONNEY: -- for this breakout?  
21 So, we have the executive summary that deals with  
22 all the six tasks for the climate resiliency,

1 right? And so, that's one portion.

2 And then, the other portion deals with  
3 Task 6, which was Harlon's subcommittee, both the  
4 written text and then the data reporting  
5 requirements, I think, is the parts there.

6 So, we're going to do the executive,  
7 and then, the issue about the letter to the  
8 Secretary of Commerce for aquaculture.

9 So, we would do the executive summary  
10 first, in terms of review, and then move on to  
11 Task 6, and then the aquaculture. Is that the  
12 approach?

13 CHAIR BEIDEMAN: Yes.

14 MEMBER BONNEY: Yes.

15 CHAIR BEIDEMAN: That's the plan, and  
16 we're doing the executive summary first before we  
17 do Task 6 because there's still some work going  
18 on on that document.

19 So, we just are jumping ahead, but  
20 whatever, if it changes any of the  
21 recommendations, then this document would be  
22 conformed to it. So --

1                   MEMBER BONNEY: So, are you just going  
2 to give us a high level walkthrough of the entire  
3 summary?

4                   CHAIR BEIDEMAN: Yes. Just a real  
5 quick, this is -- and you can take a look at this  
6 at your leisure, because I know you're just  
7 getting it.

8                   But I didn't -- anyway, you'll see.  
9 It's a, it's a summary. It, oh, she's done.  
10 Okay. Okay. Well, let's see about doing this  
11 one first, and see.

12                  CHAIR BEIDEMAN: So, anyway, no one  
13 has had a chance to read this, but I worked on it  
14 quite a bit.

15                  And so, in addition to your tasks and  
16 your recommendations, I came up with some other  
17 ideas.

18                  They don't have, they're not written  
19 in stone, but they're ideas that I had on a  
20 couple of things that could be considered in  
21 addition to the work that we were assigned two  
22 years ago. So, yes.

1           So, the first part of it is, you know,  
2           pretty much, I guess, just, you know, repeated  
3           things that we have all described, and our  
4           concerns about having resilient communities and  
5           economies.

6           So, I don't know. I know this is  
7           difficult to read it and try to make an informed  
8           idea about what it is.

9           So, one of the things that I put in as  
10          a recommendation was a discussion about  
11          empowering communities to establish and maintain  
12          resiliency plans, you know, similar to recently  
13          released Northeast Fishery Science Center has  
14          some sort of working group and a website that has  
15          sources, and it's something that they just  
16          released in the last, you know, like week.

17          So, it wasn't included in our charge,  
18          but it certainly is down our alley. So, I put  
19          that in there.

20          And I feel like we have an opportunity  
21          with Puerto Rico to not just look at adapting to  
22          gradual changes, but how are we going to respond

1 to emergency extremes, such as hurricanes and  
2 floods and other things.

3 And that we might have an opportunity  
4 looking at Puerto Rico because it's pretty much  
5 going to be starting from scratch, about how we  
6 could actually use, you know, technologies and  
7 things to show a better resilience for, not just  
8 Puerto Rico, but other places.

9 And then, I have a placeholder, and  
10 then, just a recommendation to reconsider or  
11 consider it's resiliency goals regularly, and  
12 that we'd like to be involved.

13 So, then I have an introduction that  
14 describes, you know, how we got the charge, who  
15 we are, all of that.

16 Then, the tasks were numbered, and the  
17 first task was actually making the group, so I  
18 just kept it in there.

19 2, that comment that we did in  
20 November 2015. And then, all of the different  
21 tasks, and I kept them as they were originally  
22 worded in this particular place.

1           But, so then I go on to say what they  
2 were, and that they produced final reports, and  
3 you should read them for all of the details. And  
4 then I did a very brief description of them.

5           I utilized the information in the  
6 documents, and the tasks recommendations for  
7 each.

8           And then I went all the way, 6 had not  
9 been completed, so I took what was the most  
10 recent information, which may or may not be still  
11 current.

12           And then I didn't wrap it up very  
13 well, but I tried to tie it up with a little bit  
14 of a bow at the end. And so, that's what I have  
15 for an executive summary.

16           COMMISSIONER LAWSON: So, I think,  
17 Terri, since you had me review it, I know that  
18 the review that you did of the individual tasks  
19 essentially summarizes work that MAFAC had  
20 already agreed to, and has those final reports.

21           I think where you are looking for  
22 input from this group are these high level

1       overarching recommendations that sort of tie it  
2       all together.

3                   And that you laid out three, which you  
4       just reviewed, you laid out three individual  
5       recommendations, and you had a placeholder for  
6       more, and I think that's where you, that's where  
7       it would be beneficial for the group to focus on  
8       these high level recommendations that -- and if  
9       other people have some ideas about that, this  
10      would be the time to discuss that.

11                   CHAIR BEIDEMAN: So, that sounds like  
12      a good plan to me, and I'm going to yield to Rai.

13                   MEMBER ESPINOZA: Thank you, Madame  
14      Chair. Thank you very much for including the  
15      section for Puerto Rico and the U.S. Virgin  
16      Islands.

17                   This is something that's greatly  
18      needed, specifically for the fisheries sector.  
19      About two weeks ago, a coral reef conservation  
20      program announced their domestic rents, and for  
21      some reason, for Puerto Rico, fisheries was  
22      completely excluded while for U.S. Virgin

1 Islands, Florida, it was not.

2 So, it seems very odd how that impacts  
3 from hurricanes and from the weather events, for  
4 all the other places, was included for Virgin  
5 Islands, everywhere else, but for Puerto Rico,  
6 that one was specifically not included.

7 So, this inclusion here really  
8 addresses something that's very much at need, and  
9 it's appreciated.

10 And one suggestion I would make is  
11 that on the assessment for the plans, I say  
12 include the word actions.

13 So, let's see, where is it?  
14 Fostering, in the second paragraph, on the third  
15 line, it says organizations and fostering and  
16 implementation best practices and robust  
17 resiliency policies, plans and actions.

18 I would just include the word  
19 "actions" just so that things actually, okay.  
20 And that's it. Thank you very much.

21 CHAIR BEIDEMAN: Are you editing over  
22 there? Thank you. In the last line, where it

1 says and plans, I think it, he wanted to have a  
2 comma after the word "policies", and then, plans,  
3 comma, and then, and actions in the region.  
4 Columbus.

5 MEMBER BROWN: Instead of best  
6 practices, would it be more appropriate to say  
7 best management practices?

8 CHAIR BEIDEMAN: Does anyone have an  
9 objection to changing it to best management  
10 practice? No? Probably no hyphen. Sorry.  
11 Julie?

12 MEMBER BONNEY: I'm, I guess I'm  
13 struggling a little bit on terms of the bridge  
14 between the recommendations for the original six  
15 tasks, and then the high level recommendations  
16 that are in the executive summary.

17 And I almost think there needs to be  
18 one or two bullets in the high level executive  
19 summary that kind of captures the flavor of what  
20 we were trying to do within the tasks.

21 Now, I'm not a -- Pam is a better  
22 wordsmith than I ever am, but the concept that

1 developing regulatory frameworks allows fluidity  
2 in terms of changing fishery management to deal  
3 with what's going on in the system.

4 I mean, to me that seems like an  
5 overarching goal. The idea that we need to do  
6 more planning in Task 4, which was developing  
7 what, a planning processes to help communities in  
8 terms of resiliency planning in the near term and  
9 longer term, and having the, a capacity, in terms  
10 of the training and the finances to accomplish  
11 that.

12 Those are two that just kind of jump  
13 out at me right now. Aquaculture that was really  
14 about how we can use aquaculture to kind of  
15 mitigate some of the climate impacts in terms of  
16 storm surge and resources for communities.

17 I'm kind of paraphrasing. Bob would  
18 be better for that. But you know, so kind of,  
19 because these other things are kind of things  
20 that have been currently happening that we're  
21 making a statement about, versus trying to put  
22 out a, kind of a major policy goal in terms of

1 the work that we did over the time frame, with  
2 the idea that, the way you tied it in after the  
3 blast, this is where we are, this is where we are  
4 in a, you know, in a major way, and then, tying  
5 in all the other reports that we done for the six  
6 tasks, if that makes sense. And I don't know how  
7 you decide what those bullet points would be up  
8 front.

9 CHAIR BEIDEMAN: Well, that's what you  
10 guys are here for.

11 (Laughter.)

12 CHAIR BEIDEMAN: Anyway, Mike.

13 MEMBER OKONIEWSKI: Yes. I hate to be  
14 overly critical, but when I start reading this,  
15 it, you know, my first impression is, is this  
16 coming from the National Weather Service?

17 And so -- and I'm looking at coastal  
18 resilience, and the one thing I think about  
19 resilience in coastal communities is, whether  
20 we're talking about the physical habitat, that's  
21 something else, but for the communities  
22 themselves, it comes down to economics.

1                   And I think what, you know, we're --  
2   MAFAC is a fisheries advisory group, as it says  
3   in our title.

4                   So, I guess that connectivity that  
5   maybe Julie was expressing, to some extent, is  
6   something that I find lacking in here, or I'd  
7   like to see a little more closer connection to  
8   fisheries and economics.

9                   And because I don't -- I mean, we can  
10   give all the advice we want about changing  
11   climate or, you know, what's coming down the  
12   road.

13                   But in the end, it's, okay, if the  
14   climate is changing, okay, we can make that  
15   statement or -- but what does that mean, and how  
16   are we going to create that ability to adjust to  
17   be resilient in these communities?

18                   So, I -- now I'm an industry guy, so  
19   that's where I'm, my center is. But nonetheless,  
20   I've lived in a lot of these communities up and  
21   down the coast, and from California to Alaska,  
22   quite a ways out in Alaska.

1                   And I do know the importance of many  
2 of these communities, the fisheries that they  
3 have in those communities.

4                   So, what is the response? What is  
5 that, and I'm not saying this isn't good stuff,  
6 but I kind of think it maybe misses what our  
7 connection to the whole thing is, and that's the  
8 fisheries themselves and the economics in those  
9 fisheries.

10                  And I think Julie's maybe on the right  
11 track. If we could get some connectivity there  
12 that, I think it would be better suited to who we  
13 are, or at least what our title proclaims us to  
14 be.

15                  CHAIR BEIDEMAN: Erika.

16                  VICE CHAIR FELLER: I have a  
17 suggestion, maybe. In the -- before you get to  
18 this bullet point, there's a paragraph in which  
19 it's kind of described what we mean by the  
20 impacts of environmental change, that we're  
21 talking about kind of, you know, gradual systemic  
22 changes, but we're also talking about acute

1 events.

2 And the example that's cited in here  
3 is about Deepwater Horizon, which I think is  
4 fine.

5 But I think it makes sense, given  
6 current events, to sort of include a paragraph in  
7 here that says, you know, since MAFAC started  
8 working on this project, we have seen Hurricane  
9 Harvey and Irma and Maria have a severe impact on  
10 fishing communities in Texas, Florida, Puerto  
11 Rico, and the U.S. Virgin Islands, and I think  
12 that would be a really great place to bring in  
13 some of that kind of real time knowledge about,  
14 this is what the impact has been.

15 And you know, maybe if there are  
16 overarching statistics, or if there's some  
17 stories that we could potentially tell, and then  
18 use that to make the bridge to the recommendation  
19 and say, you know, and right now, you know, this  
20 is one of these things that we really need to do.

21 For me, what this bullet point is  
22 lacking is some specificity about what do we want

1 to do for Puerto Rico and the Virgin Islands?  
2 What needs to happen?

3 And this could be a real opportunity  
4 to kind of, you know, put a marker down and say,  
5 here's, if not a specific recommendation, at  
6 least here's a vision for what we want to read,  
7 you know, what we think we need to do to address  
8 this problem in Puerto Rico and the VI, and I  
9 don't, I don't have a suggestion for that, but  
10 that's the piece that, to me, I feel like is  
11 missing out of that bullet. I finally figured  
12 out I don't have to hold this button down.

13 MEMBER BONNEY: I actually like  
14 Erika's suggestion, which is basically to tie  
15 what's been happening on the climate arena, in  
16 terms of weather extremes.

17 And you could even add what's happened  
18 with the Gulf Pacific cod stock, in terms of  
19 being tied directly to climate change. And then  
20 -- as a background for why we were tasked, and  
21 move it forward after that.

22 CHAIR BEIDEMAN: Well, okay. From my

1 perspective I think that's really good  
2 suggestions. I will try, or work with Heidi and  
3 try to come up with something on that.

4 I have left a placeholder and perhaps  
5 it's out of order, but I wanted the points that  
6 Mike was bringing up that I thought that the  
7 group would be able to from all of these  
8 wonderful recommendations.

9 I can't put them all so let's either  
10 try to combine a few and get them up here in the  
11 front of the document. Some of these ideas are  
12 just ticking in my head and I just put them in  
13 there for a draft because I wanted to just  
14 stimulate some conversation and they were in my  
15 brain so they came onto the paper and into the  
16 document.

17 I'm not wedded to it necessarily.  
18 This is a draft and I realize you're just  
19 working. I would love to see some way to take  
20 the bullets that we have gotten from tasks. Not  
21 so much our comment but the tasks that we did  
22 three, four, five, and six, and pull them into

1 more bullets here.

2 Not 20 but a few more bullets up here  
3 that are specific to that and not necessarily  
4 that this is in a totally different direction but  
5 these were thoughts that I thought would bring  
6 this more current because it has taken some time.

7 I just felt like, you know, if we  
8 could pull it to something more current it would  
9 be more interesting. It seemed to me as I was  
10 writing it that it seemed kind of boring. It  
11 wasn't talking about specifically, you know, like  
12 weather events.

13 Resilience means a lot of things, at  
14 least to me. Some were addressed in these tasks  
15 and others weren't directly. This may be another  
16 jumping-off place for bringing that up.

17 MEMBER GILL: Thank you, Madam Chair.  
18 You bring up a point that is creating a little  
19 confusion. Another newbie question. The  
20 original charge was to address recommendations to  
21 coastal resilience. How was that originally  
22 done?

1                   CHAIR BEIDEMAN: Okay. I'll try. It  
2 was requested of MAFAC to assess how NOAA was  
3 doing in its methods and means of getting  
4 information and helping communities be more  
5 resilient.

6                   As we discussed it, we came up with  
7 tasks in a different way than what was originally  
8 charged because I was quite alarmed, I believe,  
9 last year when I looked at the charge and I  
10 looked at what we were doing and went, "Oh, we're  
11 not doing that. How come?"

12                   But I was assured that because we had  
13 a conversation that MAFAC flowed these ideas out  
14 and this is where we went so that was how the  
15 charge changed somewhat. I don't know if that  
16 helps.

17                   MEMBER GILL: That may get to the root  
18 of my problem. It was the generic coastal  
19 resilience question, not any specific part of  
20 that. I'm in your camp. Resilience to me is  
21 reaction to a number of actions, one of which is  
22 climate change, but resilience is a bigger issue

1 than that.

2 When I looked at the document that had  
3 formation of the ad hoc working group, everything  
4 -- this sounds like going down your street, but  
5 it's largely oriented towards climate change.

6 The thing that struck me in  
7 particular, and so I know I'm a day late and a  
8 dollar short, was Task 6 we're going to talk  
9 about today. That is specifically relegated to  
10 climate change.

11 I would argue that, one, climate  
12 change is part of resilience but not all of it.  
13 Two, in terms of the time dynamic you're talking  
14 about two different worlds to what I think Harlon  
15 is going to talk about. Climate change is --  
16 dare I use it? -- quite glacially slow, right?

17 The council by and large can handle  
18 that kind of time dynamic. Talking about  
19 framework actions and stuff is talking about  
20 rapid change and how the council's slow process,  
21 which is the bane of stakeholders, can be  
22 improved. He's talking about speeding it up and

1 making it work faster and more flexible. Two  
2 different worlds.

3 The charge, though, for his group is  
4 climate change. That doesn't make sense to me.  
5 That's why I asked the original question. I  
6 think what he's doing, or what he's been working  
7 on, is working on we need a goal. How do we make  
8 the council process better, more flexible, more  
9 resilient?

10 I think that's good, but that's  
11 different than what the charge is. And the  
12 charge in a time scale doesn't match because the  
13 council process is slow. Granted, very slow.  
14 It's fast enough to deal with climate change if  
15 it so chooses and the tools that he may address  
16 are not the ones who address climate change.

17 He's trying to speed things up. I  
18 think that's good but it's not climate change  
19 stuff. I think the charge is misdirected. I  
20 think you take the climate-driven portion of that  
21 charge out of there and you've got a better task.  
22 Now, I know it's late and all that stuff but,

1 nevertheless, that's my reaction.

2 CHAIR BEIDEMAN: Bob.

3 MEMBER RHEAULT: In several respects I  
4 agree. I think that we're talking about  
5 resilience is a response for perturbations  
6 whether they are climate change or shorter scale.

7  
8 I really want to embrace Mike's point  
9 that resilience in the face of perturbations is  
10 all about how we deal with it, how we preserve  
11 jobs, how we make these communities economically  
12 viable in the face of perturbation, whether  
13 that's short term or long term.

14 Whether it's a council action or some  
15 of the other actions that we proposed in the  
16 other sections. I think in a nutshell we're  
17 talking about how do you retain jobs and viable  
18 communities in the face of perturbation whatever  
19 that perturbation is. I wouldn't go into a giant  
20 laundry list.

21 I think people know what we're talking  
22 about pretty much. I'm always trying to find

1 fewer words to say more. That's just where I'm  
2 at. I think, you know, from the get go what  
3 we're aiming for is viable economic communities  
4 which have jobs and jobs hopefully.

5 CHAIR BEIDEMAN: Mike.

6 MEMBER OKONIEWSKI: Well, to me the  
7 ability to be resilient requires some amount of  
8 flexibility to meet the situation whatever the  
9 change is.

10 On the West Coast, which admittedly  
11 I've only been around two council processes, but  
12 we are working now on seven years since  
13 implementation of a rationalized program not  
14 taking into account any climate change, or it's  
15 being done in a different venue of the council.

16 We are probably no more than one-third  
17 of the way through the regulatory process and the  
18 council level we need to go through to get full  
19 implementation of a rationalized program. NMFS  
20 is lagging behind that by quite a bit.

21 I'm looking at climate change coming  
22 into the picture and I'm looking at what is now a

1 fairly static environment. We have lost on  
2 groundfish 45 percent of our fillet force. We  
3 could be ready to close down one more plant.  
4 California does not have any infrastructure left  
5 for groundfish on trawl industry.

6 I think, at least from my point of  
7 view, if we are going to create flexible options  
8 for dealing with something that could be more --  
9 have more variables in it than what we do have  
10 presently, we want something a little bit  
11 different than we have right now.

12 I'm not attempting to walk us away  
13 from what our task is but I think we have to look  
14 at what the tools are we're going to use if we're  
15 going to take on more variables than we have  
16 already.

17 Maybe other councils have all got it  
18 down pat. I don't know. Maybe NMFS has been  
19 very responsive in their cases. I don't know. I  
20 just know where my own backyard is. That has not  
21 been the case and we have lost jobs and lost a  
22 lot of economic opportunity in the interim of

1 those seven years.

2 So if we put climate change on top of  
3 that, I expect to see worse, not better under the  
4 present way we do business. I think there were  
5 some really good ideas, framework ideas, and  
6 other things to come forward.

7 I think of aquaculture as an offset  
8 for economic viability is a very good tool to  
9 have in your tool basket, but if it takes 10 to  
10 15 years to get that accomplished, maybe not so  
11 much. In theory it's good but how are we going to  
12 actually produce something that is going to get  
13 the communities into some form of economic  
14 viability that Bob mentioned.

15 So that's what I'm looking at. I  
16 believe we're going to have to have a new  
17 mousetrap to do that, or a more flexible one.  
18 I'll stop there. Thank you.

19 CHAIR BEIDEMAN: My recollection is  
20 that when we had these discussions it was about  
21 community resilience, not necessarily climate  
22 change, but the ability for communities to be

1 more resilient.

2           What flowed out of that was, you know,  
3 the conversation about what role aquaculture  
4 could play potentially in helping a community be  
5 more resilient, not necessarily, or not excluding  
6 the fact that they might help the coastline but  
7 how it might help the community, the fisheries in  
8 the area, and also the other tasks that came out  
9 of it.

10           You know, are they getting -- who is  
11 doing stuff already? You went to the workshop  
12 and that's when it kind of changed focus from  
13 what four is listed as and it kind of narrowed in  
14 on let's see what these other communities are  
15 doing in the interviews. That is helpful for  
16 resilience.

17           I think are you getting the  
18 information. That's the key. You know, we can  
19 come up with great information but if it's not  
20 getting to the people that need it, how do we  
21 best do that.

22           Then six was one that, of course,

1 another big mantra was we need nimble, flexible  
2 management that can respond in perhaps a much  
3 quicker way than the amendment process that we  
4 currently have for most of our FMPs.

5 The way that we found that was  
6 working, and that was the charge of six, was to  
7 look at what tools are they using in the  
8 management that are working that could be  
9 implemented sooner rather than later.

10 That's when we looked at frameworks  
11 and we looked at emergency actions but they are  
12 statutorily dictated how long they are going to  
13 be and there is a pretty high bar to get rid of  
14 them. So framework actions and the data that you  
15 need.

16 That's my recollection was it wasn't  
17 all, you know, directed at climate but there was  
18 a lot of emphasis on that at the time but we kind  
19 of looked at the issue as what is NOAA doing  
20 good, you know, and how can we help get more of  
21 that out there and where are the gaps.

22 That's my recollection and that's kind

1 of how I tried to think. These thoughts were  
2 just, you know, you guys already made great  
3 recommendations at each of the tasks so I wasn't  
4 going to like reinvent the wheel.

5 You guys did the work and came up with  
6 recommendations. I just threw these out there  
7 just because I think they have a place in a  
8 document that's discussing resilience after, you  
9 know, the years that we've had with some of this  
10 major weather.

11 It may never happen again. I hope it  
12 doesn't but it has. It's something that I think  
13 is a good thing for a resilience document to at  
14 least entertain some of these thoughts because  
15 resilience isn't just adapting to warmer water or  
16 ocean acidification.

17 It's also how does Houston and all of  
18 these other places, how do they deal, like Puerto  
19 Rico, with floods. I mean, you guys had a lot of  
20 rain. You know. There's floods out there. It's  
21 no fun. It washes away your vegetation or fires  
22 come and burn it all down. They were all extreme

1 so we've got to be resilient to them, too.

2 Harlon.

3 MEMBER PEARCE: I feel Mike's pain.

4 One constant in life is change and we've got to  
5 be able to react quicker to the change, whether  
6 that change comes from. I don't care what it is.  
7 In Task 6 we're trying to figure out how to react  
8 to that change in a better way.

9 Will it happen overnight? Probably  
10 not, but I think it's our charge to push Chris  
11 Oliver in that direction as quickly as we  
12 possibly can. I mean, I've already started  
13 pushing. We've got to make a strong case that  
14 "This isn't just rhetoric. This isn't just  
15 putting things on paper for you. These are  
16 things we need you to do."

17 I think MAFAC has to take a strong  
18 position with Chris. A strong position to say,  
19 "Hey, look. This has to happen now. It can't  
20 wait." That's what Task 6 is all about.

21 Mike, I agree it could be -- right now  
22 everything is years down the road. We've got to

1 try to make that change. Whether we get it done  
2 now I'm not sure, but we're going to try to do  
3 it.

4 Our fisheries, our fishermen, our  
5 communities are all suspect right now. They are  
6 not in good shape so all we can do is our job  
7 here and make sure somebody else does theirs.

8 CHAIR BEIDEMAN: Go ahead, Mike.

9 MEMBER OKONIEWSKI: What I'm  
10 envisioning would allow us to be more nimble so  
11 that when we do face climate change, like I think  
12 a fishing community in Puerto Rico right now, or  
13 Texas, would be a good example to draw on.

14 Looking at the whole state of Texas,  
15 or the whole territory of Puerto Rico, I think  
16 would be the wrong approach. What do we do for  
17 these coastal communities? Having a FEMA plan  
18 for maybe just coastal communities versus the  
19 other ones, refinance for building boats, or  
20 whatever it is, these are all measures I think we  
21 could be speaking to.

22 I think we've kind of, in my

1 estimation, and I could be wrong, but I think we  
2 kind of attempted to blanket everything like  
3 we're going to maybe solve the whole equation of  
4 climate change and its effects everywhere.  
5 That's what I said about the National Weather  
6 Service.

7 I believe we are tasked to look at the  
8 coastal communities. Yes, if we're going to  
9 adjust to -- I think this would allow us to be  
10 better prepared in the long run to have better  
11 tools for climate change because we're going to  
12 be adding more variables than we have right now.

13 At the same time, I think we have to  
14 look at what we have right now and see if that is  
15 effectively doing the job. In some cases it  
16 probably is yes. I would say most definitely on  
17 the West Coast it has not been yes.

18 Is it getting better? Yes. But just  
19 throwing more variables in the center of  
20 something it doesn't work right at the moment. I  
21 don't have any confidence it's going to do an  
22 adequate job handling those variables.

1                   CHAIR BEIDEMAN: Okay. Let me just  
2 say this. Based on the conversations I'll be  
3 working with Heidi and we'll revamp something and  
4 send it out.

5                   In the meantime -- I'll get to you,  
6 Harlon -- I would like folks to think about,  
7 those who were on the task one way, one bullet  
8 that you can come up with for your task that  
9 would be appropriate in the front of this so that  
10 it would address your issues because I really  
11 just didn't want to take that on.

12                   I felt like you guys worked on it and  
13 you would be better. That's why I left the  
14 other. I didn't mean one other. I left that  
15 space for that purpose. Maybe it belongs in  
16 front. I don't know.

17                   Those ideas I agree with you, Mike.  
18 We could probably revise the text to focus on the  
19 communities, community resilience in Puerto Rico,  
20 a fishing community resilience. We can't  
21 necessarily take on all of it, but I think that,  
22 you know, the idea that we have to focus on how

1 your communities are going to be resilient.

2 Most island communities are based on  
3 the coast and rely on the ocean. I think that it  
4 would fit, but I think that we could address your  
5 concerns in that regard so I'll fiddle with that.  
6 If at the end you want to change it all together,  
7 that's perfectly fine, too. I'm amenable to  
8 that. I just put it in.

9 It was sticking in my brain and I  
10 couldn't -- you know, I just feel like it's a  
11 good place for us to mention it. It's a big  
12 thing in a community like that. It's the same in  
13 Houston. It's the same in New Jersey when we  
14 have a hurricane.

15 MEMBER OKONIEWSKI: Just real briefly,  
16 I think at one time or another everything I'm  
17 talking about has been mentioned at least once or  
18 twice by somebody else. I've seen the framework  
19 actions, for example, and the nimbleness and  
20 flexibility. All of that I've heard before. I  
21 just don't know if it's captured quite the way we  
22 expressed it previously right here.

1                   CHAIR BEIDEMAN: I agree and we'll be  
2                   sending out another draft for you to take a look  
3                   at in this thing. If that's amenable to  
4                   everybody, there will be a revised intro and  
5                   bullets and it would be helpful if the folks that  
6                   worked on a task could come up with one that is  
7                   comprehensive enough to cover what you need. It  
8                   can go right here in the front in addition to all  
9                   the other ones that you did. Does that sound  
10                  like that works for everyone?

11                   Erika, does that work for you?  
12                  Columbus?

13                   MR. BROWN: I agree with your  
14                   approach. I just want to emphasize that what  
15                   Erika suggested about having a couple real clear  
16                   examples of some things that happened recently as  
17                   a segue to the comment on Puerto Rico which also  
18                   affected the Virgin Islands, too, would be very  
19                   helpful because I don't know that any of us  
20                   really have a clue as to what really happened on  
21                   the ground.

22                   I really haven't noticed it. Well,

1 other than -- I mean, I was asking him a bunch of  
2 questions about if people could still go out and  
3 fish. The Walmarts were closed. Stuff was  
4 destroyed. Boats -- no boats.

5 I think it's important to put that in  
6 just some good Peter Rabbit language that sort of  
7 provides a good segue to those comments and give  
8 a Gulf Coast or other coast example along with  
9 it. It's not just about climate. It's about  
10 life.

11 CHAIR BEIDEMAN: Rai.

12 MEMBER ESPINOZA: Thank you. I can  
13 help you out with that because that's something  
14 that I think -- I was speaking to Paul earlier  
15 about this. Most folks here have been through  
16 storms so they have been out one week, or maybe  
17 two weeks, without power. Maybe three weeks.

18 I grew up in a third-world country  
19 that we had rationed power for about two years.  
20 When this happened in Puerto Rico for that first  
21 month, it was something that wasn't anything like  
22 that because, I was talked to Paul about this,

1 usually if you have cash, you have money, you can  
2 solve things.

3 All of a sudden it's as if -- has  
4 anybody seen the movie I Am Legend with Will  
5 Smith? He wakes up and there's nobody else and  
6 nothing works. No gas pumps, no internet,  
7 nothing. No cell phones. Imagine that for about  
8 a month.

9 If you have a boat you want to go out,  
10 but if you don't have gas, you can't even pump  
11 it. There is gas but you can't pump it. You  
12 can't get it out. Most of lack basic engineering  
13 skills and ability to actually be able to pump  
14 that out from in the well or from the gas tank.

15 There are so many things that are  
16 basic that even when we have lost power, that  
17 really puts it just kind of how it was for 3  
18 million people, 4 million people. You see that  
19 50 percent power how that just changes so much  
20 how you can actually move forward and begin to  
21 rebuild.

22 I can help you out with writing some

1 of that because I think some of this for myself  
2 it was funny because once we got power back, I  
3 remember going into my kitchen and I turned off  
4 the lights in the kitchen. I turned them off and  
5 I was like, "Oh, my God, we lost power."

6 I remember thinking in my mind this is  
7 some kind of PTSD. It was kind of shocking being  
8 back into really the Stone Age. It's something  
9 that is really, really hard. I find myself it's  
10 difficult to explain how it was.

11 I don't really blame anybody else that  
12 hasn't been there to really relate to it because  
13 it's just so not real of what -- most of the  
14 folks right now, for example, in the center of  
15 Puerto Rico are going through this as well  
16 because they are still isolated.

17 Thankfully in most of the coastal  
18 areas there is some power that folks are able to  
19 go fishing now. I can help writing some of that  
20 to get that across. When I see this about  
21 coastal resiliency, what we can do for Puerto  
22 Rico, in my mind it doesn't -- climate change is

1 just one of them, for example.

2 Specifically for fishing, coastal  
3 communities, sure, the impacts of extreme weather  
4 events. But it's also -- again, remember we are  
5 an island and 95 percent of what we consume and  
6 live off is imports. We didn't have ports for  
7 about a month. It was a really difficult  
8 situation and it continues to be so. Now it is  
9 piling up in the port.

10 That is resilience. How do we -- what  
11 if the ports -- there is a spill or the ports  
12 break down. How do coastal communities continue  
13 to get their resources? How do they continue to  
14 move on with their life? I think it's one of the  
15 key things that addresses the economic activity.

16  
17 How do you make these communities able  
18 to continue earning a living? It's not about  
19 money but it's earning a living because if you're  
20 earning a living, maybe it's \$10 a day or maybe  
21 it's \$1,000 a day but if it's a living, you can  
22 move forward.

1                   This is something that we've really  
2                   seen firsthand right now. I think that's why  
3                   it's difficult to kind of pinpoint a specific  
4                   action, at least for this, because there's many  
5                   different ways it can be done, at least in Puerto  
6                   Rico. I can help out with some of the background  
7                   and getting that to you.

8                   CHAIR BEIDEMAN: Thanks, Rai. We'll  
9                   be trying to pull something together and we'll  
10                  send it back out and you guys be thinking about  
11                  what you want for your bullet.

12                  Liz, did you have a comment?

13                  MEMBER HAMILTON: This is definitely  
14                  from the peanut gallery since this is going to go  
15                  out after I go out.

16                  I remember the conversation a little  
17                  differently. It's like this elephant that we are  
18                  all trying to touch. I think those of us on the  
19                  West Coast have used the words "climate change"  
20                  multiple times today and it's because it isn't  
21                  something long out.

22                  The intensity and the intervals of the

1       disruptions we are living it in the fisheries  
2       world.  It's very painful.  Businesses are going  
3       under from it.  Climate change is really real.  
4       It's something that we're living right now.

5                   I sort of want to think about this in  
6       three ways.  First of all, I disagree.  I felt  
7       like the climate change wasn't quite enough  
8       because that's the cause of a lot of what we're  
9       talking about here; the size of the events and  
10      the frequency of the events.

11                   Most folks accept that it's a part of  
12      the change in our planet.  If I was here and I  
13      was pushing for something, it would be a little  
14      bit of risk reduction.  Would it hurt to put a  
15      little bit of that in there, especially with all  
16      the denial that's happening currently.  It seems  
17      like it would be incumbent on us to at least  
18      mention risk a little bit.

19                   I think most of you were on the call  
20      for the Oceans and Marine Resources climate  
21      report.  If you weren't, it's really good.  Not  
22      that long either.  I also agree that given the

1 intensity of at least what we're experiencing on  
2 the West Coast.

3           Some of the stuff is like two years  
4 apart and the way it's affecting fishery  
5 resources it's tough to have the tools to deal  
6 with it. I don't know what all the answers are.  
7 I look at North of Falcon somewhat as a framework  
8 and a process by which we are able to adapt in  
9 real time to fishery management but I don't know  
10 if it would work in the ocean.

11           I have no idea. I know we need new  
12 management frameworks to respond to things that  
13 are that disruptive that often. I would disagree  
14 and put more climate in there and, again, talk a  
15 little bit about risk reduction.

16           CHAIR BEIDEMAN: Julie.

17           MEMBER BONNEY: Now that I've had a  
18 little more time to look at this, I really think  
19 you're close in terms of the introduction and  
20 some of the descriptions for each one of the  
21 tasks.

22           Really I think the focus just needs to

1 be the way on the executive summary and how  
2 that's structured in terms of what people are  
3 feeling today and why we even took on the task.  
4 I think you're close. I think we're close.

5 CHAIR BEIDEMAN: Peter.

6 MEMBER MOORE: Somebody mentioned we  
7 need some specifics. I think I totally agree  
8 with what Liz just said. I think each of us in  
9 our regions could come up with two or three  
10 species that we've seen and state the time  
11 period.

12 Some of them have retracted or  
13 disappeared or shrunk in faster terms than  
14 others. I was just reading something about  
15 Kodiak after what Julie was saying about the cod.  
16 I mean, this is mind-boggling what happened  
17 there.

18 It happened probably over the course  
19 of three years, two years. Right? Mackerel on  
20 the East Coast. We had a company in New Bedford.  
21 We closed it because they're gone. I mean, they  
22 aren't even around anymore. As we speak, the

1 assessment is looking at where there are no new  
2 recruits, there's no eggs, there's no nothing.

3 The warm water -- we pinned it on warm  
4 water. There's no water for them anymore.

5 Northern shrimp, another one I was involved in in  
6 Maine. There hasn't been a fishery for five  
7 years. There's no recruitment. I think it --  
8 and we can put dollar amounts on these things.

9 If you're in the fishery, you know how  
10 much they're worth, or they were worth. They are  
11 worth a lot. I think this piece is maybe the  
12 piece that we put right up front about list a few  
13 species and sort of the ex-vessel or the lost  
14 revenues and the number of jobs. It's pretty  
15 graphic.

16 For the deniers, it's like, "Wait a  
17 minute. This is the cost of it?" This is the  
18 cost of carbon or the cost of climate change or  
19 whatever you want to call it and it's major  
20 league for our industry. I think we need to call  
21 it out.

22 MEMBER BONNEY: I would be willing to

1 write up a piece about what happened with the  
2 gulf cod. I'll add that to my tasking list.

3 MEMBER MOORE: We're not talking about  
4 a big paragraph. It's basically just something  
5 for the bullet point that provides some meat to  
6 this.

7 CHAIR BEIDEMAN: Well, we do have time  
8 left so we're not completely out of time. I know  
9 I don't like to be standing in the way of the no  
10 host bar but -- go ahead.

11 MS. LOVETT: Do you want to have  
12 individuals send their draft text what they are  
13 agreeing to do to me?

14 CHAIR BEIDEMAN: That would be  
15 excellent. That would be nice.

16 Peter, do you have anything that you  
17 could whip together?

18 MEMBER MOORE: I will give you some of  
19 the things I talked about for the North East.

20 CHAIR BEIDEMAN: How about you, Liz?  
21 Do you have something you can --

22 MEMBER HAMILTON: Actually, I'm

1 looking at a short paragraph on the Chapter 9  
2 marine resources that could be adopted. It  
3 doesn't need to be long. It's called  
4 Opportunities for Reducing Risk. A lot of what's  
5 in there isn't -- some of what's in there isn't  
6 right for this group but some of it is very right  
7 so I can work from that.

8 CHAIR BEIDEMAN: Okay. And you'll  
9 send it to Heidi? Thank you.

10 What is your pleasure on the balance  
11 of our time? We have 20 something minutes that  
12 we had on our schedule.

13 MEMBER BONNEY: Why don't we go ahead  
14 and work on Task 6.

15 CHAIR BEIDEMAN: Okay. Let's do Task  
16 6 then. Thank you for your forward motion.  
17 Appreciate it. Even with your bum thumb.

18 So there is the document and I'm going  
19 to turn it over to Harlon and let him walk you  
20 through.

21 MEMBER PEARCE: We can adjourn so  
22 everyone can have a drink. We're fine. I'm

1 kidding.

2 All right. Task 6. We've had some  
3 really robust discussions on this particular  
4 situation. I really think it fits well into our  
5 thought processes about protecting the  
6 communities, protecting our fishermen, protecting  
7 jobs, and just a matter of us getting it done as  
8 quickly as we can.

9 Does everyone have it? It's a Google  
10 doc that was sent to you. It's a Word doc now?  
11 All right. I don't have that one but that's  
12 okay. I'll stay on this one.

13 The purpose of our task was to  
14 identify tools and strategies that were  
15 effective, or could be strengthened to allow  
16 fishery's management to be more nimble, flexible,  
17 anticipatory, and adaptive to mitigate changes in  
18 ecosystems and fisheries. That's our goal.

19 We focused on -- there were three  
20 topics but we focused on two of them using  
21 framework or in-season management actions to  
22 solve the problems, improving the data that is

1 needed to make sound decisions including more  
2 real-time data.

3 The third one was improving  
4 communications but that one was already being  
5 taken up with another group so we didn't get into  
6 the communications end of it. We focused on  
7 framework and in-season management actions.

8 By using in-season management  
9 framework actions basically, too, it speeds us up  
10 quicker than we think because as we go through  
11 the amendment process of the council, we pass an  
12 amendment and hopefully would have these  
13 framework actions and triggers in it.

14 It takes a couple of years to get that  
15 implemented or whatever. If we had frameworks in  
16 place in these amendments with a trigger, when  
17 that trigger takes place things happen so we  
18 don't have to wait to go right back to the old  
19 amendment.

20 I think it's a really good way for us  
21 to look down the road to help ourselves as we  
22 move on with the process. Of course, we've got

1 to get the councils to do that.

2 Any questions so far? Everybody is on  
3 board?

4 We went through the process of looking  
5 at emergency actions which we got away from. We  
6 looked at different systems that worked in  
7 different countries; Norway and the North East.  
8 We looked at those ideas and they worked really  
9 well with different programs that we did.

10 We talked about many, many things in  
11 our discussions. We put in the abundancies, some  
12 of the abundancies language in our document, both  
13 fishery dependent data collected science data.  
14 We really looked integrating all data sources  
15 into the real-time program including citizen-  
16 based science including historical science,  
17 traditional science.

18 Everything else involved so that we  
19 could pull it all together under one roof so to  
20 speak, but also have protocols in place to make  
21 that happen and not just have it thrown at us.

22 The things that we looked at was

1 demands for increase of traditional data in  
2 science necessary to support eco-based system  
3 management. That's one of the things we looked  
4 at, and we went into all these other details to  
5 make sure that we got all the data that we could  
6 to get it done.

7 That data would affect all change,  
8 climate change included, as leading to change in  
9 ocean conditions, negative impacts on riverine,  
10 marine, and estuarine environments was our  
11 discussion.

12 Stop me if anybody's got any  
13 questions.

14 Resilient productive ocean fisheries  
15 are critical to our economy and way of life.  
16 Managing these fisheries over the long-term means  
17 taking into account more than just one species at  
18 a time using a holistic science-based approach  
19 that looks at the entire ecosystem. That is eco-  
20 based fisheries management.

21 Data needs. While the importance of  
22 data are described in Section 2, it will be

1 important for regional fishery managers to  
2 determine the information they need to enable  
3 flexible and dynamic management action for the  
4 regions. Real-time data needs vary by fishery  
5 and the manager best suited to identify their  
6 fishery's specific needs.

7 Erika, you had some comments on that?  
8 I'm down to 4. I'm trying to go down. You added  
9 some comments to this. You said you think an  
10 important principle of good data collection is  
11 using centered design.

12 VICE CHAIR FELLER: There were two  
13 things. I think that these principles that are  
14 listed here are good. I think there is one  
15 that's missing. It's implied but it's not here.

16 That is kind of using the principle of  
17 user-centered design to design data collection  
18 and management systems. That's basically what it  
19 says, right? Think about what fishery managers  
20 need, how they use information, for what  
21 purposes, and then design your systems to meet  
22 that need.

1 MEMBER PEARCE: Okay. Did you --

2 VICE CHAIR FELLER: I haven't written  
3 the text for it. It was just a comment.

4 MEMBER PEARCE: Okay.

5 VICE CHAIR FELLER: I would be happy  
6 to.

7 The second thing, Bill made this  
8 comment earlier today about fishermen in the mid-  
9 Atlantic who are trying to build traceability  
10 systems and having trouble getting access to data  
11 because of constraints in the system.

12 That struck me that fishermen, fishing  
13 communities, fishing industry participants are  
14 also important consumers of this data. They have  
15 uses for it as well that are directly relevant to  
16 the resilient stuff we're talking about.

17 I think we should include them among  
18 the users that we care about. This is very  
19 focused on fishery managers and I think it could  
20 be more inclusive of the industry as well.

21 MEMBER PEARCE: I think we did discuss  
22 some of that, that we had to be very much more

1 transparent in what we do. By being transparent,  
2 that means to me open to everyone that really  
3 wants to look at some of the stuff that we're  
4 doing in data, particularly fishermen,  
5 particularly the people involved in the industry.  
6 We kind of talked about that.

7 All of a sudden I'm signed out. I'm  
8 back in now. No I'm not. Does everyone  
9 understand what Erika was wanting to add to the  
10 document? Any comments on it?

11 MEMBER OKONIEWSKI: Could you just  
12 repeat that real quickly? I couldn't quite hear  
13 it.

14 VICE CHAIR FELLER: The second one? I  
15 had two. The first one was including explicitly  
16 a principle that talks about using kind of a  
17 user-centered design approach like thinking about  
18 who the users of these data are and designing  
19 systems that meet their needs.

20 The second one was that the document  
21 is very focused on fishery managers as the  
22 principle users of data. I think we should also

1 include the fishing industry also as users of  
2 these data.

3 I think transparency is part of it,  
4 Harlon, but I also think there are a lot of -- I  
5 think likely that the types of solutions that  
6 will come about to resiliency challenges will be  
7 led by the private sector and they are going to  
8 need information to support what they do.

9 It may be things that NOAA looks at it  
10 and says, "You know what? That works great."  
11 But they are not leading it, the industry is  
12 leading it and they should have access to data to  
13 support those initiatives.

14 MEMBER GILL: Thank you, sir.

15 Erika, are you referring to a specific  
16 place in the document or are you speaking  
17 generally?

18 VICE CHAIR FELLER: I'm talking on  
19 page 4 there's section 3 on data needs. What I  
20 would propose to do is add a bullet point that  
21 kinds of gets at the idea of user-centered  
22 design.

1                   Then I would probably add a sentence  
2                   or two to the opening paragraph that includes  
3                   some comment about fishermen and fishery  
4                   participants also being important users of data  
5                   that we should design for.

6                   MEMBER GILL: I agree with that.  
7                   Would you be willing to expand it to stakeholders  
8                   to the extent possible?

9                   VICE CHAIR FELLER: I think to the  
10                  extent possible. I think one of the other -- the  
11                  balancing act, and this is reflected in the  
12                  document, is that you always kind of have to  
13                  balance that data access with the data  
14                  confidentiality issues.

15                  You can of broaden it out. When you  
16                  think about stakeholders, you start thinking  
17                  about NGOs and then fishery persons start getting  
18                  really twitchy.

19                  But, yeah. I mean, I think there's a  
20                  lot of legitimate users who could use data in a  
21                  way that protects individual sensitive  
22                  information. Yeah, I think that would make sense

1 if other people agree. I don't think it's just  
2 my decision.

3 I would -- yeah, I would just take  
4 what you have and probably expand it out a little  
5 bit which I realize creates another writing  
6 assignment for me which creates another  
7 bottleneck for you so sorry.

8 MEMBER PEARCE: Okay. Any other  
9 questions?

10 Yes, Bob.

11 MEMBER GILL: Thank you, sir.

12 Heidi, it seems to me that one of the  
13 users of data, of course, is going to be the  
14 scientist. Should we not include them as well?

15 VICE CHAIR FELLER: I have another  
16 comment later in this section on that point.

17 MEMBER PEARCE: Are you done, Bob?  
18 Are you finished?

19 MEMBER GILL: Yes, sir.

20 MEMBER PEARCE: All right.

21 MEMBER GILL: Thank you.

22 MEMBER PEARCE: As we went through

1 -- on that same page as we went through the tools  
2 that can provide increased efficiency. We talked  
3 about uniform protocols for data gathering  
4 methodology. We talked about that at length.  
5 And that we have to have some uniform protocols  
6 to accept the data that we put into the process  
7 which is very, very important.

8           Increasing the use of community based  
9 monitoring, citizen science, and crowd sourcing  
10 can improve efficiency. We talked about that  
11 quite a bit, especially during periods of reduced  
12 resources. But also increase stakeholding in  
13 fisherman awareness builds trust and fosters  
14 improved relations between them and science and  
15 management.

16           We talked a lot about making sure that  
17 the stakeholders and the fishermen were aware of  
18 what we're doing so that is part of that.

19           Protecting proprietary information, like you just  
20 mentioned. Erika. That is part of the thought  
21 process. We have to make sure that's done.

22           Really important is identifying and

1 integrating the data depositories not held by  
2 NOAA and NOAA fisheries but that complement NOAA  
3 data should be prioritized to reduce redundancy.

4 Yes, Bob.

5 MEMBER GILL: Thank you, sir. We're  
6 going to have a presentation on some of that  
7 citizen science, etc. I don't know what they are  
8 going to say but since you're bringing it up  
9 here, it seems to me that whatever they say we  
10 want to consider incorporating into it here if  
11 everybody agrees with it.

12 MEMBER PEARCE: You're right. I think  
13 that was a big topic of discussion so once we go  
14 through that program, then we can look at it or  
15 do whatever we want to this document. Citizen  
16 science, local and traditional knowledge, local  
17 ecological knowledge, all those things we want to  
18 build into a stronger picture of what is going on  
19 in the ecosystem.

20 Yes, ma'am.

21 VICE CHAIR FELLER: So on the second  
22 bullet, the uniform protocols for data sharing,

1 or data gathering methodology and use, I would  
2 propose maybe making that a little bit more  
3 clear. I read uniform and I think uniform at  
4 what scale. Is this uniform at a fishery scale,  
5 all the different sectors in one fishery, or at a  
6 region, or even nationally.

7 I've always kind of been a big  
8 proponent for standards for fishery data  
9 collection but I think I finally had it kind of  
10 beaten into my thick head that we have a  
11 decentralized system of management and standards  
12 that may be developed for the West Coast may not  
13 necessarily be applicable on the Atlantic or in  
14 the Gulf.

15 I think what's more important than  
16 uniform is that they are shared across different  
17 institutions that are using data and that are  
18 participating in the data collection process. I  
19 think the principles of data integration and  
20 transparency and those types of things might be  
21 more important than uniform standards and  
22 probably more in line with what is plausible.

1                   MEMBER PEARCE: Mike, you were really  
2 in tune with this uniform protocol. Comments on  
3 what Erika said?

4                   MEMBER OKONIEWSKI: Actually, I don't  
5 think I was the one that used that term.

6                   CHAIR BEIDEMAN: Harlon, Gail, Vic,  
7 and I were involved in writing a lot of this  
8 original document and our issue was exactly the  
9 integration problem that was described.

10                   It's been described at various levels  
11 where data gathering has for whatever reason been  
12 brought up to address a single issue and then it  
13 grows in layers. The data from the Northeast  
14 might not work at all with data from somewhere  
15 else.

16                   That was what we were trying to get to  
17 here whether the wording is right about uniform  
18 at a minimum if everyone were using the same  
19 basic protocols for putting in the data and it  
20 wasn't so desperate.

21                   It would make, I think, the managers,  
22 at least the data, it might eliminate some of the

1 data integration jobs but I think they would be  
2 happy to see them go because that's a lot of time  
3 consumption, I believe, trying to get that  
4 straight.

5 That was the reason for this. It was  
6 to see if there is a way that we could do it  
7 across all these managers. Of course, we have  
8 states and we have regional commissions and we  
9 have federal. If we could get it, I think it  
10 would make a lot of things more simple.

11 MEMBER PEARCE: I think everybody was  
12 concerned about making sure that the protocols  
13 were important to us and there was basically a  
14 vetting process before the data got used. We are  
15 on the same page so to speak.

16 I think that's what we're trying to  
17 get to here is not just to have all this data  
18 thrown at us and not sure where it came from,  
19 what's going on. It has to go through some sort  
20 of a process and we don't have that process.

21 Maybe the better thing to do is to set  
22 up a uniform protocol process or something that

1 we set up. Some way that people look at  
2 different steps they have to take to make this  
3 data useful so it's just not coming out of the  
4 blue. That may be something we have to look at  
5 to change.

6 We have to think about that before the  
7 end of the meeting, I guess. Maybe we can get  
8 something a little stronger than this for you or  
9 a little less vague.

10 VICE CHAIR FELLER: I don't know about  
11 stronger, but I think less vague. There is a lot  
12 of work like on the Atlantic Coast the work that  
13 ASMSC is doing to get the states and the federal  
14 government together and integrate data that is  
15 collected at the state level with data that's  
16 collected at the federal level so people have  
17 access to it. It's clear. Your apples and  
18 oranges kind of make sense when you're looking at  
19 them next to each other.

20 MEMBER PEARCE: Any comments? Dave go  
21 first and then I'll come back.

22 MEMBER MOORE: I'm not in your seat

1 but I agree with what Erika just said. Depending  
2 on what the -- where the home for this data is,  
3 you know, if you are going to pass muster with  
4 like a stock assessment, it's pretty specific how  
5 you've got to approach that.

6 I'm sure that Dave can probably talk  
7 about that. I think this is a very key piece  
8 here. One reason is that you don't want to sort  
9 of encourage this kind of effort on the part of  
10 the industry or citizens and then not have it be  
11 used. You've got to meet a protocol.

12 MEMBER DONALDSON: And that was  
13 exactly the point I was going to make. We need  
14 to make sure that if we're asking the public and  
15 the citizens to collect this that the data  
16 actually gets used. The worst thing you can do  
17 is they spend all this time and effort and they  
18 provide it and we don't use it because of A, B,  
19 or C.

20 Harlon, instead of developing a  
21 process, I would recommend that we use the  
22 regional FINs, PacFIN, and Pacific RecFIN,

1 GulfFIN and ACCSP. They've already got a lot of  
2 these things worked out and vetted and utilize  
3 those to develop these regional protocols,  
4 regional standards.

5 I agree with Erika that we need to  
6 make the language less vague. We need to ensure  
7 that if we're asking the citizens to collect the  
8 stuff that they are collecting it in a way that  
9 can be useable because if we don't, we're  
10 shooting ourselves in the foot.

11 MEMBER PEARCE: That was our goal to  
12 start with was to make sure that there's data and  
13 there's data. All right? We're going to make  
14 sure that the data we get from anyone fits into  
15 the system correctly and not just thrown at us.

16 MEMBER DONALDSON: And one more thing.  
17 You also have to manage expectation about citizen  
18 science and data that we collect. We can't  
19 expect the public to go out and collect landings  
20 data, for example. I mean, that's not viable.  
21 That needs to be clear when a program is put in  
22 place that what these data can actually be used

1 for.

2 MEMBER PEARCE: Mike.

3 MEMBER OKONIEWSKI: It may not have  
4 been captured quite adequately but we had that  
5 same conversation and brought up those same  
6 points in one of our discussions. I think  
7 actually I might have been the guy that brought  
8 it up. The last thing you want to do is have  
9 your citizen scientists go out there and spend a  
10 lot of time and find out it goes nowhere.

11 It's just information and it's not  
12 used. I think it would break down the whole idea  
13 of why to have citizen science. It was discussed  
14 at some point and maybe it could be stated a  
15 little better.

16 MEMBER DONALDSON: I think that it  
17 would be useful to somehow capture it in the  
18 language here.

19 MEMBER PEARCE: All right. So we've  
20 got to go to work on that.

21 CHAIR BEIDEMAN: Two-minute warning.

22 MEMBER MOORE: Can I just add one

1 thing?

2 MEMBER PEARCE: I can slow down.

3 MEMBER MOORE: It's not just fisheries  
4 data. There's ecosystem data. There's  
5 environmental data. There's ocean observing  
6 data. I think that is both scientist collected  
7 but also citizen science. I can think of the  
8 diving crowd on the East Coast that goes down and  
9 their data is actually really interesting because  
10 they have a whole system.

11 They are not federal or state  
12 employees but they have a system that they can  
13 watch and count fish on every dive. It goes into  
14 a little system and you can see trends of what  
15 they saw each year and what time of year and the  
16 trend is either changing or staying the same.

17 That's one example. It's certainly  
18 not something that would probably not in any way  
19 be used in a stock assessment but it is another  
20 clue for managers to see, okay, what's moving in  
21 and what's moving out and what's staying the  
22 same.

1           Likewise, with the ocean observing  
2 information there is actually a very specific  
3 protocol that all that has to go through. It's a  
4 data management and quality control process  
5 before it gets accepted to the federal standard.

6           That's in place with the IUSE network.  
7 When we talk about people going out, I can think  
8 of something called Friends of Patapsco Bay in  
9 Maine. They have a very specific water quality  
10 monitoring program.

11           If you want to be part of that, you  
12 have to go through training and you have very  
13 specific protocols you follow and they are able  
14 to use that information in many applications. I  
15 think this is really an important piece.

16           MEMBER PEARCE: Madam Chair, we're  
17 just on page 4. I think if we go much further  
18 than this, it's going to get even more  
19 complicated as we go to this next page.

20           All these comments are very good so I  
21 think we need to focus on -- what we did focus on  
22 in a lot of the discussion were these protocols

1 on figuring how the data comes in before we come  
2 back to the table.

3 CHAIR BEIDEMAN: Okay. I think that -  
4 - I know that we agree that information is  
5 important and to convey that thought. I have to  
6 say when I heard Peter initially talking, I was  
7 like ecological data, this is where we wound up  
8 in a pretty big rabbit whole and then brought it  
9 all back to what do we need for framework  
10 actions.

11 We recognize there's a gazillion  
12 ecological data points out there that we could  
13 bring up but we need to try to stick with ones  
14 that were more applicable for the framework  
15 actions to be implemented and what they would  
16 need. I agree without standards the data is  
17 potentially useless so it's really critical.

18 With that, we are at 5:01. Tomorrow  
19 we have some time again during the ecosystem, not  
20 to take away from the ecosystem committee, but it  
21 would be wonderful if we could plow through this.  
22 If folks could take a look and see if there's any

1 other parts of it now that you have it and come  
2 prepared.

3                   Maybe we can get through the rest of  
4 it. Also it is my grand desire that we would  
5 have the executive summary done, too. I'm going  
6 to work on that and we'll look at it tomorrow  
7 afternoon.

8                   With that, we're going to adjourn for  
9 the day. Thank you, everyone. And especially  
10 Bob for his foresight in knowing that this was  
11 going to run long.

12                   (Whereupon, the above-entitled matter  
13 went off the record at 5:02 p.m.)

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22

<b>A</b>	
<b>a.m</b> 1:12 93:21,22 148:19,20	80:4 156:13 346:10
<b>abiding</b> 75:14	<b>accomplished</b> 131:18 150:6 229:12 360:10
<b>abilities</b> 104:6	<b>accomplishment</b> 276:5
<b>ability</b> 47:17 70:11 136:9,16 168:19 213:1 226:20 241:4 270:12 348:16 358:7 360:22 371:13	<b>accomplishments</b> 51:4
<b>able</b> 12:4 25:9 35:8 44:6 44:11 45:6,21 49:17 52:3 53:6 56:17,19 57:2,12,13,14 61:12 75:17 82:10 90:5,18 91:16 98:10 107:13 108:5 122:2 136:2 139:3 160:4 162:14 174:11 182:13 198:18 198:20 206:4 215:11 243:21 249:9 300:2 302:5 304:10 322:12 352:7 364:5 371:13 372:18 373:17 376:8 401:13	<b>account</b> 38:19 358:14 384:17
<b>aboard</b> 324:17	<b>ACCSP</b> 89:21 398:1
<b>Abominable</b> 266:6	<b>accuracy</b> 300:21
<b>above-entitled</b> 93:20 148:18 262:10 333:7 403:12	<b>accurate</b> 12:1 185:15
<b>absence</b> 212:12 303:10	<b>achievable</b> 137:17 173:4 223:4
<b>absolute</b> 273:5	<b>achieve</b> 137:16,20 160:4 164:17 185:2,3 185:11 229:11 231:19 234:5 237:7 239:14 274:8
<b>absolutely</b> 93:2 141:5 186:7 301:14,21 302:21	<b>achieved</b> 160:11 165:9
<b>absorb</b> 21:2	<b>achieving</b> 164:8
<b>abstain</b> 138:9	<b>acidification</b> 363:16
<b>abundance</b> 159:15 173:14 174:3,6 235:1 235:4 252:2	<b>acknowledge</b> 11:22 295:21 308:14
<b>abundancies</b> 383:11,12	<b>ACL</b> 21:4,10
<b>abundant</b> 23:13	<b>ACLs</b> 20:16
<b>Academy</b> 263:9 267:3,4 267:10 296:12 313:13	<b>acoustic</b> 303:19
<b>accelerate</b> 288:21	<b>acre</b> 208:4,5
<b>accept</b> 113:15 292:22 375:11 391:6	<b>acres</b> 215:6
<b>acceptance</b> 30:14	<b>act</b> 15:12 20:2,3,10 53:14 86:2,6 103:22 145:10,11 152:6,11 158:1 159:6,12 235:8 241:6 264:5 278:10 301:9,9 389:11
<b>accepted</b> 401:5	<b>acting</b> 2:15 4:12 8:7,13 8:14 263:2
<b>access</b> 12:3 54:9 79:3 89:4 386:10 388:12 389:13 396:17	<b>action</b> 99:11 100:1 357:14 374:4 385:3
<b>accessible</b> 54:1,17 314:7	<b>actions</b> 19:20,21 23:18 29:4 110:14 112:7 273:10 280:9 286:9 344:12,17,19 345:3 354:21 355:19 357:15 362:11,14 368:19 381:21 382:7,9,13 383:5 402:10,15
<b>accommodate</b> 201:21	<b>active</b> 311:3
<b>accommodating</b> 262:19	<b>actively</b> 65:17
<b>accomplish</b> 17:4 79:16	<b>activities</b> 20:5 110:14 289:9 333:18
	<b>activity</b> 272:1,6 373:15
	<b>actual</b> 173:4 181:22 182:17 291:4
	<b>acute</b> 349:22
	<b>ad</b> 355:3
	<b>adapt</b> 197:1 376:8
	<b>adaptation</b> 210:10
	<b>adapting</b> 291:8 340:21 363:15
	<b>adaptive</b> 381:17
	<b>add</b> 41:22 42:2 54:6 60:6 120:1 122:7 124:17 233:5 240:8 261:10,12 295:12 303:3 304:20 351:17 379:2 387:9 388:20 389:1 399:22
	<b>added</b> 18:10,13 92:13 102:17 385:8
	<b>adding</b> 43:16 366:12
	<b>addition</b> 7:6 32:5 111:13 173:18 255:7 261:14 317:6 336:3 339:15,21 369:8
	<b>additional</b> 107:4 108:21 120:20 122:7 197:13 226:16 239:21 255:20 305:19
	<b>address</b> 39:1 44:14 59:2 61:13,14 71:15 91:8,9 102:14 116:3 121:16 168:4 170:4,6 238:20 284:19 291:21 306:9,17 326:4 351:7 353:20 356:15,16 367:10 368:4 394:12
	<b>addressed</b> 32:13,14,16 353:14
	<b>addresses</b> 344:8 373:15
	<b>addressing</b> 41:21 59:7 77:2 92:1 114:2 155:22 224:10
	<b>Adele</b> 11:8 12:11 53:10
	<b>adequacy</b> 173:21
	<b>adequate</b> 174:16 366:22
	<b>adequately</b> 399:4
	<b>adheres</b> 241:5
	<b>adjacent</b> 180:21
	<b>adjourn</b> 4:20 380:21 403:8
	<b>adjudication</b> 190:20,20
	<b>adjust</b> 348:16 366:9
	<b>adjustments</b> 75:9
	<b>administration</b> 1:3 8:6 8:17 18:19 19:10 20:12 23:8 24:1,4 25:15,21 26:8,21 27:5 30:17,18 33:12 34:15 95:3,11 97:10 99:16 118:12 123:6,15 127:11 183:22 208:12 230:14 269:11 274:16 283:16,22 284:9,10 293:21 326:11
	<b>administration's</b> 274:10 290:14
	<b>administrator</b> 2:15,18 3:17 4:3 8:14,15 13:6 147:17 149:7 243:3 249:6 263:3
	<b>Admiral</b> 8:9,20 13:21 24:21 28:9 262:7,20 264:10 300:12 331:16
	<b>admit</b> 50:1
	<b>admittedly</b> 358:10
	<b>adopted</b> 254:5 380:2
	<b>adult</b> 235:1,4 253:8,12 253:15
	<b>adults</b> 203:18,20
	<b>advance</b> 287:9 304:14 310:7
	<b>advanced</b> 304:15 305:5 313:11
	<b>advancement</b> 269:18
	<b>advances</b> 270:18 276:14
	<b>advantage</b> 22:5 158:15 299:13
	<b>adversaries</b> 196:17
	<b>advice</b> 69:5 102:2 107:1 146:8 288:7 321:5 348:10
	<b>advisable</b> 100:10
	<b>advise</b> 27:17 112:16 270:19 292:14
	<b>advised</b> 83:12
	<b>advisement</b> 281:17
	<b>advising</b> 287:10,21
	<b>advisory</b> 1:4,10 7:19 32:21 66:11,14 241:6 348:2
	<b>aerial</b> 276:18 302:6
	<b>affairs</b> 2:16,17 61:19 62:14 65:9
	<b>affect</b> 166:20 384:7
	<b>afford</b> 109:21
	<b>afforded</b> 267:11
	<b>Africa</b> 273:13
	<b>afternoon</b> 142:11 146:14 260:4,9 264:13 297:4 321:8 333:2 335:20 336:14 336:17 337:5 403:7
	<b>Age</b> 372:8
	<b>agencies</b> 58:15 99:19 102:7,10 103:20 104:17 105:7 106:22 107:20 123:4,10,17 124:4 131:20 137:9 143:9,17,17 185:22 309:18
	<b>agency</b> 15:21 16:5 17:17 19:11 24:5 25:3

27:14 28:3 32:1 36:5  
 36:14 44:4 48:9 62:16  
 63:20 64:5,8 66:7  
 110:12,22 112:16  
 127:6,10 132:14  
 133:3,3 135:19 136:2  
 136:5,15 140:14  
 142:21 205:9 271:18  
 322:16  
**agency's** 63:12 136:9  
 143:4  
**agenda** 4:2 27:21 28:10  
 133:1 255:18 335:15  
 336:15  
**agents** 110:4 142:1  
**aggressively** 303:1  
**agile** 298:17  
**aging** 22:17 304:7  
**ago** 8:18 13:15 113:20  
 114:18 117:4,5 118:4  
 119:9 124:3 126:12  
 127:5,17 166:14,16  
 169:2 199:3 203:7  
 216:7 219:6 229:21  
 263:14 273:6 305:3  
 339:22 343:19  
**agree** 27:13 29:21  
 30:20 74:14 76:14  
 100:3 131:3 135:17  
 163:21 166:1 186:6  
 232:6 284:17 357:4  
 364:21 367:17 369:1  
 369:13 375:22 377:7  
 389:6 390:1 397:1  
 398:5 402:4,16  
**agreed** 206:4 342:20  
**agreeing** 379:13  
**agreement** 124:5 231:1  
 252:14 334:17  
**agreements** 154:3,4  
**agrees** 233:1 392:11  
**agricultural** 103:2  
 110:2 151:5 155:1  
 188:21 189:21 224:11  
 225:9,10  
**agriculture** 78:15  
 125:18 189:21 190:7  
 193:12 194:18 207:4  
 210:18 214:4 217:18  
 225:19  
**ahead** 34:16 36:1 52:13  
 83:4 87:14 94:8 149:1  
 262:3 271:12 299:17  
 310:20 338:19 365:8  
 379:10 380:13  
**AI** 312:2 313:10  
**aiming** 358:3  
**aircraft** 269:1 276:17

282:6 326:18  
**airplane** 85:2  
**airport** 199:19 200:2  
**Alan** 19:13  
**alarmed** 354:8  
**Alaska** 1:19 10:18 11:4  
 15:3 16:8,9 27:9  
 42:18 43:1 45:2 49:19  
 50:12 52:7 55:2,3  
 107:8,10 151:21  
 221:16 227:7,10  
 290:18,20 348:21,22  
**algae** 107:22 111:16  
**aligned** 235:12 274:15  
**alignment** 235:16  
**alive** 197:2  
**all's** 206:5  
**alley** 340:18  
**Alliance** 66:15,16  
**allocation** 326:5  
**allow** 129:7 150:1 246:7  
 323:17 365:10 366:9  
 381:15  
**allowed** 85:6 228:3  
**allowing** 286:3  
**allows** 63:17 75:22  
 80:10 346:1  
**alluded** 329:11  
**alluvial** 202:5,10  
**alter** 33:14  
**alternative** 77:11  
**altogether** 300:6  
**amazement** 203:18  
**amazing** 16:11 23:13  
 244:17 257:2 269:17  
 309:20 313:12  
**Amazon** 41:1  
**amenable** 92:22 368:7  
 369:3  
**amended** 208:19  
**amendment** 113:6  
 362:3 382:11,12,19  
**amendments** 382:16  
**America** 88:11  
**American** 68:3 72:13  
 81:22 135:15 206:9  
 221:6  
**American-produced**  
 72:12  
**amount** 16:2 23:1 58:7  
 78:4 170:19 172:22  
 189:14 228:5 241:9  
 241:21,22 242:4  
 260:15 310:14 311:7  
 358:7  
**amounts** 207:2 378:8  
**analogy** 265:3  
**analysis** 140:13 162:17

**Analyst** 2:20  
**analytics** 40:1  
**analyze** 39:16  
**anecdote** 292:4  
**animal** 141:1  
**Anjou** 187:10  
**anniversary** 64:4  
**announced** 109:2  
 343:20  
**announcements** 43:17  
 46:9  
**annual** 17:13 20:16,21  
 21:8 184:2 228:5  
**annually** 190:6,13  
 198:9 208:5 210:19  
 210:22  
**answer** 17:5 90:18  
 91:16 128:21 171:5  
 214:6 219:11 229:22  
 233:8 295:7 301:22  
 306:11 314:14 329:1  
 329:7,8  
**answered** 221:2  
**answers** 76:6 233:19  
 247:13 376:6  
**anti-import** 82:1  
**anticipate** 8:19  
**anticipated** 17:18 18:17  
 293:15  
**anticipating** 120:6  
**anticipatory** 381:17  
**anxious** 14:10,11 15:11  
**anybody** 82:4 192:16  
 270:20 329:7 371:4  
 372:11  
**anybody's** 384:12  
**anymore** 197:19 198:17  
 204:17 213:2 223:2  
 255:11 377:22 378:4  
**Anytime** 116:5  
**anyway** 25:6 50:15  
 86:14 87:3 146:6  
 147:3 194:10 339:8  
 339:12 347:12  
**anyways** 266:16  
**apart** 257:4 376:4  
**apologize** 233:18  
**appears** 301:3  
**appetite** 121:1  
**applaud** 70:5 71:2  
 116:2 140:9 225:22  
 274:11 309:21  
**apple** 201:7 335:16  
**apples** 187:5,6,8 190:3  
 396:17  
**applicable** 299:6  
 393:13 402:14  
**applicant** 104:3

**applicants** 248:12  
**application** 21:11  
**applications** 202:1  
 401:14  
**applied** 41:12 248:12  
**apply** 107:3  
**applying** 268:9 269:5  
**appointed** 248:20 263:4  
**appointee** 277:10  
**appointees** 13:8  
**appreciate** 5:4,7,18  
 34:12 50:7,10 60:3,10  
 70:7 72:22 73:21 74:3  
 76:12 80:5 86:15  
 87:11 94:10 140:14  
 223:22 249:18 254:5  
 261:2 262:16 297:22  
 300:13 301:19 306:1  
 306:21 307:8,13  
 309:3 320:8 331:10  
 331:11 332:14,22  
 380:17  
**appreciated** 228:16  
 262:18 306:3 344:9  
**appreciating** 228:20  
**approach** 19:1,8 37:14  
 44:15 79:9 99:7  
 106:16 120:10 163:22  
 225:21 249:21 284:8  
 338:12 365:16 369:14  
 384:18 387:17 397:5  
**Approach's** 335:21  
**Approaches** 4:16  
**approaching** 160:10  
 270:4  
**appropriate** 32:4 345:6  
 367:9  
**appropriated** 189:2  
**appropriately** 67:12  
**appropriations** 182:16  
 184:2 189:4  
**April** 195:9 203:13  
 278:11  
**APs** 59:5  
**aquarium** 73:5,5 82:16  
 83:13 141:3  
**aquariums** 115:4  
**aquatic** 140:22  
**archaic** 30:10 32:11  
**archived** 53:4  
**Arctic** 268:5 274:1  
 291:22 292:6  
**area** 44:13 45:14,20  
 46:1 49:15 55:11  
 56:10 99:3,4 145:18  
 160:20 163:12 165:14  
 165:14 176:7,22  
 180:20 181:22 188:6

188:21 206:18 215:17  
221:12,14 222:10  
224:21 225:9,10  
229:7 238:19 249:7  
257:1 264:20 274:14  
277:3 292:20 361:8  
**areas** 44:4 45:12 48:19  
101:16 103:21 150:22  
163:14 182:5 189:17  
189:18 226:9 250:15  
250:17 274:12 372:18  
**arena** 351:15  
**argue** 355:11  
**arguing** 192:20  
**argument** 75:6 328:10  
**arises** 59:1  
**arms** 260:10  
**Army** 183:16  
**Array** 1:14  
**arrive** 246:8  
**arrived** 13:9 245:1  
**arriving** 180:6  
**art** 218:14  
**articles** 115:11  
**articulate** 296:5  
**articulated** 275:3  
**artificial** 310:7 312:22  
**ash** 180:12,13  
**Asia** 91:7  
**asked** 17:2 19:15 26:9  
33:13,17 77:4 84:1  
224:10 230:11 247:14  
247:22 356:5  
**asking** 137:6,22 183:13  
242:16 314:21 315:7  
334:15 370:1 397:14  
398:7  
**ASMSC** 396:13  
**aspect** 82:6,11 85:11  
264:18  
**aspects** 23:16 26:22  
79:12 95:11 234:14  
269:5  
**asphalt** 220:12,13  
**aspiration** 332:17  
**assess** 354:2  
**assessment** 155:11  
165:18 293:4,10  
295:3 296:1 300:20  
301:4 317:18 344:11  
378:1 397:4 400:19  
**assessments** 77:6  
213:9 271:17 317:5  
317:22  
**assets** 327:3  
**assigned** 339:21  
**assignment** 390:6  
**assist** 34:10

**assistance** 33:18 142:5  
243:3  
**assistant** 2:14,15,18,20  
4:3 8:7 11:12 13:6  
249:5 263:1 277:11  
**assisting** 8:5  
**associated** 169:14  
234:12 307:6  
**association** 1:18,22 2:6  
2:9 3:15 6:8,15,22  
9:13 117:10,11,22  
118:17 135:4 319:10  
**assume** 69:3 90:8  
**assumed** 268:3  
**assuming** 142:19  
337:13  
**assumptions** 240:1  
**assured** 354:12  
**Astoria** 221:17  
**Atlantic** 1:16,20 9:17  
11:16 43:4 74:8  
144:21,22 145:8,9  
386:9 393:13 396:12  
**atmosphere** 2:14 4:13  
275:22 316:18  
**ATMOSPHERIC** 1:3  
**attacked** 128:4  
**attain** 161:14,19  
**attempted** 366:2  
**attempting** 78:7 222:22  
359:12  
**attend** 56:14 247:19  
**attending** 247:12  
255:10  
**attends** 247:16  
**attention** 38:11 78:19  
112:6 261:6  
**attitude** 263:18  
**attorneys** 192:17  
**attract** 139:9  
**attractions** 319:15  
**attributable** 96:7  
**attributed** 224:4  
**audience** 38:4,14 44:7  
44:8 48:11,12 57:13  
59:11  
**audiences** 38:3,10,15  
38:21 39:4 48:13,18  
49:3 55:16,17 61:15  
84:8  
**Austin** 299:2  
**author** 270:21 271:2  
**authority** 67:18 74:13  
79:14 184:11 278:13  
290:6  
**authorizations** 33:22  
**authorized** 182:15  
**auto** 180:14

**auto-populate** 45:7  
**automating** 312:13  
**automation** 302:14  
**autonomous** 269:19  
**availability** 172:22  
**available** 21:20 54:16  
56:9,16 58:19 59:17  
69:2,12 74:16 84:3  
110:18 140:12 141:20  
141:21 142:1 207:3  
**avenue** 1:11 280:20  
**avenues** 97:17  
**average** 37:21  
**averaged** 222:15 322:2  
**avid** 33:22  
**avoid** 104:10  
**award** 111:12  
**awards** 220:2  
**aware** 82:21 86:21  
134:21 144:19 146:9  
391:17  
**awareness** 391:13  
**awesome** 257:21  
**awful** 34:5 67:19 82:15  
**Aye-aye** 297:18

---

**B**


---

**B** 397:18  
**babies** 253:14  
**baby** 253:3  
**Bachelor's** 263:7  
**back** 30:8 39:8 41:20  
45:3,15 46:3 53:2  
57:2 67:20 78:7,19  
79:10 80:16 82:8  
88:18 93:10 98:3  
105:11 109:17 112:4  
113:2 119:2,14  
122:11 123:13 124:9  
133:4 145:20 147:10  
155:9 158:5 164:3,11  
167:10 194:2,2  
195:21 196:13 197:11  
197:15 198:16 199:6  
199:6 201:3 210:1  
211:15 215:18,19  
216:15 217:1 221:15  
232:2 233:13 237:14  
242:17 245:21 255:9  
259:14 262:8 268:7  
294:5,8 315:17 333:4  
336:10 372:2,8  
374:10 382:18 387:8  
396:21 402:2,9  
**backbone** 100:15  
**background** 13:13  
14:13 15:8 19:17  
35:22 101:2 149:16  
150:11 263:7,11  
321:18 351:20 374:6  
**backup** 256:2  
**backwards** 200:21  
**backyard** 114:8 359:20  
**bad** 50:3 124:5 192:3  
194:17,18 197:16,17  
204:19 257:10 274:4  
**baggage** 241:22 244:19  
**balance** 58:21 87:14  
242:12 380:10 389:13  
**balanced** 137:10  
**balancing** 153:14,15  
158:1 389:11  
**ball** 128:16  
**Ballard** 33:6  
**balloons** 145:16  
**bandied** 141:13  
**bandwagon** 91:10  
**bane** 355:21  
**bang** 223:5  
**Bank** 1:20 10:19  
**banner** 43:14 112:6  
**bar** 88:2 315:20 362:13  
379:10  
**barge** 178:10,11 179:16  
179:21 180:6 201:16  
**barges** 178:12 179:9  
**barging** 178:7  
**barrier** 203:7,10  
**barriers** 203:5  
**Barry** 3:17 4:10 8:17  
147:17 148:7,7,12  
149:7 161:6,13  
163:20 168:4 169:3  
170:9 176:1,17 188:3  
189:15 204:6 205:6  
237:12 261:17 262:18  
**basalt** 202:8  
**base** 26:11 65:7 168:21  
212:22 240:16 273:12  
273:12  
**based** 7:3 20:14 23:16  
44:15 102:2 168:5  
240:4 244:6 250:19  
336:7 367:2 368:2  
383:16 384:20 391:8  
**baseline** 166:2 225:12  
**basic** 22:14,20 31:11  
98:3,5,14 105:21  
240:12 298:9 304:13  
371:12,16 394:19  
**basically** 21:2 28:11  
29:14 78:6 182:19  
184:10 231:9 299:7  
318:7 351:14 379:4  
382:9 385:18 395:13  
**basin** 4:9 12:9 24:10

58:16 147:19 149:3  
 149:13 150:13,16,18  
 151:16,18,20 152:15  
 153:18 155:5,17  
 163:7,8 165:7 175:5  
 176:14,20 177:3  
 180:19 182:1,7 183:4  
 188:2,12,17,20 189:2  
 189:8,20 190:19  
 191:19 199:5 205:22  
 206:2,13 209:3  
 232:12 234:7,9,17  
 235:19,22 237:18  
 239:19 241:7 249:7  
 253:2,9  
**basin-wide** 196:4  
 237:19 239:9  
**basing** 166:18  
**basins** 189:14  
**basis** 51:21 55:22 58:10  
 94:18,19 97:6 106:19  
 191:3 258:3  
**basket** 360:9  
**bass** 144:22 145:8  
 146:9  
**battle** 79:7 116:12  
**battles** 257:5  
**Bay** 75:2 77:3 125:20  
 281:1 401:8  
**Bayliner** 290:2  
**beach** 172:22  
**Beal** 1:16 11:14,15  
 88:17 144:9  
**bear** 269:7 287:2  
**beat** 165:22 228:17  
**beaten** 393:10  
**beating** 246:13  
**beats** 116:7,8  
**Beaufort** 111:14  
**beautiful** 215:19 261:6  
**becoming** 208:9 225:3  
**Bedford** 377:20  
**beginning** 30:4 76:7  
 77:16 134:7 157:22  
 184:21  
**begun** 68:11  
**behalf** 332:12  
**behooves** 29:15  
**believe** 23:18 29:4  
 86:19 100:21 109:3  
 122:15 184:5 185:11  
 226:9 227:1 236:22  
 249:3,4 250:21  
 282:16 294:17 296:6  
 309:12 318:11 328:11  
 354:8 360:16 366:7  
 395:3  
**believer** 20:16 230:22

**Belle** 1:17 9:11,12  
 133:13,18 244:10,16  
 245:9 321:8,17,20  
 324:7  
**belong** 117:21  
**belonged** 117:19  
**belongs** 367:15  
**Belt** 273:8,18,20  
**bending** 316:10  
**beneficial** 242:5 343:7  
**benefit** 96:21 97:3,8  
 99:21 163:8  
**benefits** 33:5 96:6  
**benefitted** 98:16  
**benefitting** 213:4 214:4  
**Bering** 227:22 304:3  
**Berkowitz** 1:18 7:1,2  
 47:16 74:2 122:12  
 123:20 124:2,14  
 300:12 301:16,19  
**best** 48:16 104:9  
 145:16 179:19 205:18  
 233:20 253:8 271:4  
 275:20 285:9 294:22  
 307:9 309:10 310:1  
 321:5 328:21 344:16  
 345:5,7,9 361:21  
 385:5  
**better** 17:5 18:18 22:19  
 23:19 39:21 47:7 48:4  
 52:17 66:18,19 69:22  
 70:14 71:7 81:4  
 104:18 124:4 130:7  
 142:16 144:4 158:17  
 168:20 171:19 172:2  
 172:4 201:13 203:3  
 204:22 226:14 235:15  
 258:20 266:5,15  
 277:21 280:4 285:3  
 289:16 295:3 296:20  
 299:19 300:3 301:8  
 301:11 302:18 307:4  
 308:12 309:2 318:8  
 319:2 323:18 327:8  
 341:7 345:21 346:18  
 349:12 356:8,21  
 360:3 364:8 366:10  
 366:10,18 367:13  
 395:21 399:15  
**beyond** 52:16 78:22  
 164:6 257:13 327:3  
 327:15  
**big** 15:8 24:20 35:4  
 49:16 59:14 79:10  
 88:22 89:5 104:7  
 135:14 152:5 202:16  
 204:11 216:8 222:20  
 223:16 227:15,17

252:14 274:22 284:1  
 288:14 296:19 301:17  
 319:1 362:1 368:11  
 379:4 392:13 393:7  
 402:8  
**bigger** 113:17 331:21  
 354:22  
**biggest** 223:5 274:19  
**bill** 24:12 26:21 33:19  
 106:6,11,19 121:10  
 191:19 192:8 205:6,7  
 211:19 212:7,12  
 386:7  
**billion** 177:21 190:6  
 210:13,19,22 211:1  
 279:16 283:17 284:13  
 286:16 287:14 288:16  
 289:3  
**bills** 26:18,18 106:6  
 284:15  
**bin** 40:7  
**binds** 234:18  
**bioengineering** 269:20  
**biologically** 236:11  
**biology** 166:20  
**biomass** 222:17 305:5  
**bios** 287:6 307:14  
**bit** 7:12 14:12 15:12  
 16:22 21:12 23:17  
 26:4 34:16,22 40:21  
 43:10,16 45:13 46:13  
 53:22 62:1 65:6 77:8  
 95:21 109:6,7 114:15  
 120:2 128:22 131:10  
 133:10 146:1 149:15  
 150:11,14 154:10  
 155:7 170:11 176:6  
 176:11 177:8 188:7  
 200:19 209:4,5  
 219:14 233:4,6,9  
 234:11 263:6,10  
 264:18 266:2,20  
 267:16 269:10,13  
 275:18 278:1 300:15  
 331:11 334:8 339:14  
 342:13 345:13 358:20  
 359:10 375:14,15,18  
 376:15 390:5 391:11  
 393:2  
**Bitcoin** 85:18  
**bite** 335:16  
**blame** 264:5 286:15  
 372:11  
**blanket** 366:2  
**blast** 347:3  
**blasted** 194:4  
**bleeds** 114:6  
**BLM** 154:2

**blob** 291:2  
**blocked** 151:10 189:13  
 189:19 202:19 204:5  
 204:14 205:4 211:10  
 250:19  
**blogs** 45:11  
**blow** 326:21  
**blown** 104:3  
**blows** 325:11  
**blue** 288:21 320:8  
 396:4  
**blueberries** 88:8,11  
**blunt** 124:13  
**board** 8:1 15:22 17:12  
 25:1 32:21 37:20 43:7  
 91:18 138:3,12 383:3  
**boast** 151:19  
**boat** 71:20 72:1,8,14  
 178:11 302:10 325:9  
 371:9  
**boats** 325:12 365:19  
 370:4,4  
**Bob** 1:16 6:6 10:5 11:15  
 25:18 27:2 60:2,7  
 88:16 105:11 116:4  
 126:19 131:3 142:7  
 161:8 164:20 223:18  
 231:14 240:10,22  
 243:4 247:22 324:16  
 330:11 346:17 357:2  
 360:14 390:10,17  
 392:4 403:10  
**Bob's** 135:17 167:20  
 230:11  
**body** 98:17 100:9  
 146:20 184:16 244:6  
**bog** 30:6  
**Boise** 215:6  
**bold** 95:7  
**Bonneville** 150:20  
 151:4 157:17 165:6,8  
 183:22 230:14,18  
**Bonney** 1:19 10:18,18  
 27:8,12 49:5 50:8  
 54:20 184:10 227:6  
 229:14 246:12 248:2  
 290:10,19 295:9,11  
 335:14 336:4,7  
 337:17,20 338:14  
 339:1 345:12 351:13  
 376:17 378:22 380:13  
**Bonnie** 93:6  
**book** 270:18,22 271:4  
**books** 22:3,4 108:15,17  
**boring** 15:19 353:10  
**born** 199:4  
**borrowed** 196:15  
**Bosc** 187:10

**Boston** 7:3 92:6 299:2  
**bottleneck** 390:7  
**bottom** 38:9 188:17  
 311:17  
**bought** 11:5 215:6  
 221:18 228:13  
**bound** 89:16  
**bow** 342:14  
**box** 40:22 41:2,2 89:20  
 101:18 107:16 147:14  
 201:9  
**boy** 257:17  
**BP** 76:16  
**brain** 270:12,14 352:15  
 368:9  
**Brame** 1:20 6:20,20  
**branches** 215:10  
**branding** 115:2  
**Brazil** 91:7  
**break** 87:5 90:16 93:10  
 93:16 147:4,9 148:16  
 262:3,5 333:4,6  
 334:16 373:12 399:12  
**breaking** 66:19 90:1  
 325:8,12  
**breakout** 335:19 336:2  
 337:20  
**bridge** 247:1 312:6  
 345:13 350:18  
**bridges** 186:4 250:10  
**bridging** 120:14  
**brief** 52:12 298:7 342:4  
**briefing** 28:10 99:12  
**briefings** 16:6,14  
**briefly** 266:20 368:15  
**bring** 29:8 47:21 54:21  
 114:19 118:15,18  
 119:14 141:18 154:9  
 234:6 255:18 269:7  
 287:2 318:19 350:12  
 353:5,18 402:13  
**bringing** 15:22 68:21  
 149:2 206:19 222:8  
 352:6 353:16 392:8  
**brings** 185:21  
**broad** 49:14 50:6 99:14  
 102:20 161:13 168:7  
 172:5 238:1  
**broaden** 56:4 389:15  
**broader** 49:22 112:8  
 121:7 125:10 159:19  
**broadly** 97:3 112:12,15  
 121:18 141:16,17  
 164:1  
**broken** 232:14  
**broker** 215:5  
**brook** 200:14  
**brother** 57:7 265:14

**brought** 31:2 32:10  
 83:14,15 119:4 317:3  
 394:12 399:5,7 402:8  
**Brown** 2:1 9:15,16 87:7  
 87:11 326:20 345:5  
 369:13  
**Bryant** 2:16 4:6 60:12  
 61:18 62:5 71:8 72:22  
 74:21 77:5,20 80:5  
 81:20 82:13 83:8 86:9  
 86:12 88:15 90:7  
 91:13 93:2,12  
**Bryant's** 94:12  
**buck** 223:6  
**budget** 22:10 110:15  
 284:12,16 285:8  
 324:22 325:1,4,10,11  
 325:16 326:13 327:10  
 327:15  
**budgeted** 325:8 329:16  
**budgets** 22:11,16  
 136:10 304:7 328:3  
**Buenos** 9:19  
**bugs** 41:21  
**build** 49:21 97:2 118:18  
 120:18 121:7 186:3  
 197:17,21 202:17  
 212:21 215:21 236:2  
 247:1 386:9 392:18  
**building** 42:3 92:3,9  
 185:16 191:7 197:16  
 197:22 198:3 200:13  
 201:19 228:19 250:6  
 251:6 262:8 306:8  
 365:19  
**builds** 391:13  
**built** 98:15 183:18,18  
 184:3,6,7 189:7  
 200:13 215:1 226:10  
 227:20  
**bulk** 179:18  
**bulks** 180:12  
**bullet** 179:16 347:7  
 349:18 350:21 351:11  
 367:7 374:11 379:5  
 388:20 392:22  
**bulletins** 45:17,18  
**bullets** 345:18 352:20  
 353:1,2 369:5  
**bum** 380:17  
**bunch** 91:6 143:1 257:4  
 370:1  
**buoys** 276:17  
**burden** 19:17 32:1  
**bureaucracy** 19:4  
**bureaucratic** 297:9  
**burn** 363:22  
**burning** 225:2

**bus** 92:16,17  
**business** 5:15 7:4,5  
 23:21 50:17 110:19  
 182:19 316:22 323:5  
 323:6 360:4  
**business-** 18:22  
**business-minded** 19:8  
**businesses** 252:6  
 375:2  
**busy** 306:1  
**button** 351:12  
**buy** 68:3 87:15 88:9  
 92:10 215:13  
**buyers** 83:15  
**buying** 81:22,22 172:14  
**by-catch** 227:18,21  
 228:8  
**byway** 264:14

---

**C**

---

**C** 397:19  
**calendar** 291:5  
**California** 151:21 267:6  
 348:21 359:4  
**call** 56:17 77:7 90:4  
 91:2 113:10 145:15  
 154:4 208:10 250:22  
 278:22 288:12 375:19  
 378:19,20  
**called** 78:9 87:7 117:5  
 189:4 213:6 215:13  
 298:22 307:21 380:3  
 401:8  
**calling** 98:14  
**calls** 56:16  
**calm** 129:19  
**camp** 354:20  
**campaign** 67:5,14 68:5  
 73:9,18 80:17 91:16  
 118:11  
**campaigns** 62:17 68:20  
**Canada** 11:4 177:4  
 198:19 222:19  
**canal** 197:4  
**canals** 196:9  
**Canyon** 151:11  
**canyons** 204:12  
**capabilities** 96:12 97:6  
 104:12 111:16 270:9  
 287:4 302:1,20  
**capability** 270:5 278:2  
 286:20 294:11  
**capacity** 94:17 162:20  
 162:21 163:1 165:11  
 168:18 226:16 238:15  
 270:7,13,15 346:9  
**capital** 135:15 210:10  
**Capitol** 73:16

**Captain** 291:19  
**capture** 96:19,20 97:3  
 121:14 127:19 299:6  
 316:3 399:17  
**captured** 368:21 399:4  
**captures** 345:19  
**capturing** 271:5  
**car** 220:5  
**carbon** 291:9 310:13  
 378:18  
**care** 37:13 311:21  
 364:6 386:18  
**career** 13:10 251:17  
 267:22 268:22 331:19  
**careers** 127:1 244:3  
**careful** 77:20 82:2  
**Cargill** 135:1  
**cargo** 176:20 177:1,19  
 177:21 178:3 179:18  
 179:18,19  
**Caribbean** 9:18  
**Carolina** 277:15  
**carried** 288:6  
**carriers** 269:2 282:6,6,7  
**carry** 60:20  
**carrying** 51:15 197:7  
**cars** 180:13  
**Cascade** 187:15 188:13  
 194:22 209:10 215:7  
**case** 30:7 81:8 94:18  
 118:6 140:3 174:3  
 197:19 204:2 214:1  
 256:6 257:6 327:1  
 328:5,21 359:21  
 364:13  
**cases** 50:20 145:13  
 160:7 166:12 323:3  
 359:19 366:15  
**cash** 371:1  
**catch** 20:16,21 21:8  
 30:6 31:18 32:12  
 60:21 74:16 91:1  
 166:4 225:2 228:3  
**catchers** 118:8  
**catching** 48:14 273:3  
 274:3  
**categories** 99:14  
**catfish** 128:22 129:3  
**caught** 74:16 76:20  
 89:6 91:6 262:2  
 282:14 314:19 332:6  
**cause** 222:6 242:17  
 375:8  
**causes** 11:6 225:4  
**caution** 50:4  
**CCC** 19:3  
**cell** 371:7  
**census** 328:14,17

- center** 42:19,20 43:3,5  
43:6,6 44:5 55:3,10  
82:11 130:3 155:12  
155:14 163:4 187:4  
200:13 205:7,10,14  
292:16 299:22 303:18  
317:11 340:13 348:19  
366:19 372:14
- Center's** 320:11
- centered** 385:11
- centering** 99:14
- centers** 279:9 299:3
- Central** 187:11,19  
188:1
- centralizing** 60:22
- centric** 127:19
- cents** 87:4
- centuries** 193:10
- century** 199:7 203:14  
204:5 216:7 312:12
- CEO** 1:14,18
- CEQ** 16:21
- ceremony** 199:7
- certain** 54:13 58:13  
67:10 71:9 110:5  
127:16 172:21 216:10  
231:5 294:14 306:17
- certainly** 23:6 59:20  
62:20 66:17 69:2  
75:13,18 80:11 90:8  
99:14 110:15 111:20  
112:20 113:5 114:17  
115:16 122:20 126:12  
135:17 136:15 138:15  
139:15,20 140:2  
141:11 143:21 146:20  
161:2 164:8 225:6  
236:8 245:5 258:10  
259:2 280:10 290:6  
301:8 316:11 317:5  
340:18 400:17
- certainty** 181:13 252:6  
252:7,11
- certified** 67:17 122:18
- certify** 122:13
- certifying** 122:14
- cetera** 10:10 39:17 49:2  
59:6 63:3 164:13  
229:20
- chain** 16:20 27:7 91:20  
92:2 94:14 96:13  
97:22 102:5 118:2  
301:14
- chains** 79:9
- chairman** 10:16 26:6  
223:20
- challenge** 34:11 71:9  
108:19 119:13,22
- 124:13 230:8 284:11
- challenges** 17:7 112:20  
124:7,11 127:3 235:7  
235:20 236:4 261:7  
330:5 388:6
- challenging** 15:19 26:4  
105:21 180:20 317:16
- chance** 30:22 33:10  
137:19 138:13 172:2  
172:4 179:1 222:21  
339:13
- change** 27:20 30:13  
31:3 50:2,16 70:11  
75:5 77:10 81:3 85:18  
102:9 115:8 136:3,6  
200:19 225:1 290:14  
291:20 293:1 294:7  
306:20 349:20 351:19  
354:22 355:5,10,12  
355:15,20 356:4,14  
356:16,18 357:6  
358:9,14,21 360:2,22  
364:4,5,6,8 365:1,11  
366:4,11 368:6  
372:22 374:19 375:3  
375:7,12 378:18  
384:7,8,8 396:5
- changed** 18:2,2,5 95:20  
96:9,20 191:15 231:4  
354:15 361:12
- changes** 18:15,18  
135:6 141:22 162:6  
167:13 291:21 292:6  
293:15 319:1 338:20  
340:22 349:22 371:19  
381:17
- changing** 114:22  
127:11 193:20 209:18  
219:4 345:9 346:2  
348:10,14 400:16
- channel** 178:9 203:11
- Chapter** 380:1
- chapters** 240:4
- character** 266:6
- charge** 99:17 340:17  
341:14 353:20 354:9  
354:15 356:3,11,12  
356:19,21 362:6  
364:10
- charged** 354:8
- Charlton's** 207:20
- chart** 46:16 311:16  
315:8,12
- chases** 130:17
- chat** 269:3
- Chatwin** 126:3
- cheaper** 310:12
- cheaply** 92:14
- check** 147:12 166:15  
244:19
- check-off** 117:12
- checked** 242:1 252:15
- checkerboard** 106:16
- checking** 38:18 225:8
- Chef's** 74:6
- chefs** 115:2
- chem-free** 129:5,8
- chemicals** 129:3
- chemistry** 9:9
- Cheney** 2:17 4:11 148:5  
150:4 233:16 245:4  
245:10 249:8,12  
261:4
- Chesapeake** 125:20  
182:4 290:4
- chicken** 59:7
- chicks** 108:16
- Chief** 2:16 61:19 151:12
- chillo** 91:2
- China** 119:22 272:5  
273:7 284:19
- Chinook** 227:10,18  
228:4,7
- chipping** 129:15
- choose** 142:15
- chooses** 356:15
- Chris** 2:15 4:4 7:10 13:5  
14:1 17:3,19 25:18  
27:8 28:19 29:22 34:4  
65:13 69:21 284:3  
302:3,22 303:2  
304:21 315:12 331:12  
332:21 364:10,18
- Chris's** 283:15 286:7
- Christmas** 264:17  
265:6
- Chukchi** 292:2
- chunk** 243:12
- circle** 199:20 336:10
- circulating** 26:19
- Cisco** 303:5 317:13
- Cisco's** 303:5 304:16
- cited** 350:2
- cities** 214:17
- citizen** 391:9 392:7,15  
398:17 399:9,13  
400:7
- citizen-** 383:15
- citizens** 234:16 397:10  
397:15 398:7
- city** 87:9
- clams** 112:4
- clarify** 168:6 249:2  
254:18,20 313:7  
337:18
- class** 313:13,18 314:1  
324:9
- Claus** 264:17 265:5,12  
266:8
- Cle** 198:5 199:1 200:10
- clean** 14:20 182:21  
219:9
- cleaning** 40:8
- clear** 162:10 207:18  
296:2 298:14 312:20  
369:15 393:3 396:17  
398:21
- clearly** 209:13 268:20  
269:17 272:19 274:2  
275:15 287:15 299:12  
331:22
- Clearwater-Nez** 165:13
- Cleveland** 87:4
- click** 46:14
- clients** 5:15 119:10
- climate** 27:20 290:14  
291:20 293:1,3,5,9,10  
294:4,7,7,12,19 295:3  
295:6,12,14,22 296:5  
306:3,6,8,9,20 307:1  
337:22 346:15 348:11  
348:14 351:15,19  
354:22 355:5,10,11  
355:15 356:4,14,16  
356:18 357:6 358:14  
358:21 360:2,21  
362:17 365:11 366:4  
366:11 370:9 372:22  
374:19 375:3,7,20  
376:14 378:18 384:8
- climate-driven** 356:20
- climb** 79:1
- close** 51:2 60:7 123:6,7  
174:5 316:11 320:7  
359:3 376:19 377:4,4
- closed** 250:15,16 370:3  
377:21
- closely** 206:15 208:17  
225:15
- closer** 160:8 210:21  
222:16 348:7
- cloth** 156:20
- clue** 369:20 400:20
- co-** 35:15
- Co-owner** 2:4
- coalition** 97:20 117:6  
120:19 121:7
- coalitions** 111:19
- coast** 2:9,17 3:18 6:7  
6:11 9:6 21:21 30:2  
31:19 32:8,18 43:3  
49:19 78:3 79:3,11  
88:20 144:18 146:6  
147:16 148:4 149:7

- 151:2,16,20,22 153:8  
174:1,7 180:11,15  
244:13 272:7,8,14  
279:13 287:18 289:17  
291:3 293:18 295:17  
309:18 348:21 358:10  
366:17 368:3 370:8,8  
374:19 376:2 377:20  
393:12 396:12 400:8  
**coastal** 1:15,21 6:21  
14:14 101:15 108:10  
109:9,11 272:10,21  
306:13,19 337:15  
347:17,19 353:21  
354:18 365:17,18  
366:8 372:17,21  
373:2,12  
**coastline** 361:6  
**coasts** 272:14  
**cobia** 119:18  
**cod** 74:7 291:2 351:18  
377:15 379:2  
**code** 302:16  
**codes** 76:19  
**coherent** 155:21  
**Coho** 165:5,8,13  
**coincidentally** 263:16  
**cold** 211:13  
**collaboration** 222:4  
228:20  
**collaborative** 74:6  
78:13 205:10 235:20  
**collaboratively** 10:1  
**collapse** 103:15 291:1  
**collapsing** 295:18  
**colleague** 111:13  
**colleagues** 101:11  
104:12 138:11 240:7  
**collect** 22:20 397:15  
398:7,18,19  
**collected** 383:13  
396:15,16 400:6  
**collecting** 50:21 238:12  
239:1 398:8  
**collection** 21:9 22:14  
239:5 271:15 285:21  
296:20 385:10,17  
393:9,18  
**collective** 119:22  
**collectively** 111:2  
**college** 221:12  
**collisions** 329:18  
**Colorado** 200:14  
**Columbia** 4:9 12:8  
24:10 58:16 147:19  
149:3,13 150:12,16  
150:18 151:16,18,19  
152:8,15 153:5,9
- 154:4 155:5,17 163:7  
164:22 165:7 169:20  
171:12 175:5 176:4,9  
176:14,19 177:3,6,15  
179:12 180:19 181:11  
182:1,6 183:4 188:2,4  
188:12,18 190:9,14  
191:2 195:17 198:6  
198:22 205:22 206:2  
206:7,14 209:3 211:5  
221:11,18 232:12,21  
233:1 234:7,9,17  
235:21 239:18 249:6  
251:18  
**Columbus** 2:1 9:16  
52:15 87:6 88:16  
94:15 345:4 369:12  
**column** 303:8  
**combating** 128:3  
**combination** 217:3  
**combine** 352:10  
**combined** 103:3 190:15  
**come** 5:5 13:9,19,21  
19:10,22 20:22 31:3  
34:9 36:15 37:5 39:3  
39:12 43:17 44:7,18  
46:8,9 48:20 49:3  
52:4,6 56:14,20 58:18  
59:17 84:20 103:6  
104:17 120:11 122:11  
124:5 130:2 157:3  
179:4 193:15 195:6  
198:16 200:4 201:8  
202:17 204:21 205:17  
206:4 207:2 213:15  
215:12 220:7 231:11  
237:18 259:16 260:14  
262:8 277:18 283:1,9  
312:17 318:14 328:12  
332:14 352:3 354:11  
360:6 361:19 363:22  
367:8 369:6 377:9  
388:6 396:21 402:1  
403:1  
**comes** 129:13 131:8  
160:2 176:20 177:9  
180:1,6,7,20 183:20  
194:10,10,13 212:19  
224:6 231:2 259:2  
347:22 364:6 402:1  
**coming** 15:16 30:18  
36:1,21 37:16 38:2,8  
38:15 39:5,14 40:2,16  
40:18 44:9,17 45:5,9  
45:18 55:14 60:10  
72:5 74:20 79:15  
86:12 91:18 92:20  
96:14 104:22 119:21
- 142:13 145:22 147:10  
175:17 180:9 193:5  
193:17 194:2 202:6,8  
208:12,16 211:18  
212:1 213:8,20 216:3  
225:9,11,13 236:22  
242:7 245:1 250:12  
268:7 301:2 330:21  
347:16 348:11 358:21  
396:3  
**comma** 345:2,3  
**commend** 322:17  
**comment** 28:17 33:13  
33:18 52:11 57:20,22  
59:3 60:3 84:14 94:15  
122:8 134:20 144:16  
228:11 256:21 295:12  
303:2,4 311:22  
341:19 352:21 369:17  
374:12 386:3,8 389:3  
390:16  
**commentary** 94:12  
**commented** 34:2  
**comments** 52:21 73:1  
80:20 134:3 135:5,8  
135:18 136:18 249:15  
321:14 370:7 385:7,9  
387:10 394:2 396:20  
401:20  
**Commerce** 1:1 2:14  
4:13,17 10:22 16:20  
27:17 67:10 93:5 99:5  
146:19 184:15 241:5  
243:4 263:2 328:4,8  
333:16 334:15 335:6  
338:8  
**commercial** 5:14 9:7  
10:2 38:12 44:7 47:5  
47:14,22 48:6,10,21  
52:5 96:20 112:1  
116:16 119:13 129:19  
135:21 139:2,17  
154:22 176:20 177:5  
180:1 227:13,17,18  
252:3 254:3 271:16  
273:19 281:15 282:14  
317:2 322:11  
**commercially** 289:5  
**commission** 1:17 2:2,4  
6:2,5 11:17 16:12  
76:16 77:18 109:4  
171:11,12  
**COMMISSIONER** 247:6  
248:4,6 259:3 262:6  
262:13 264:4,9  
335:18 336:5,11  
337:10 342:16  
**commissions** 21:16
- 109:1 144:12 171:10  
315:18 395:8  
**commitment** 25:7  
**committee** 1:4,10 7:19  
12:16 19:3 32:21 55:4  
66:11,14 98:18 99:1  
99:10,22 146:13,19  
184:11 208:15 232:11  
241:6 246:18 247:2  
255:13 264:5 277:16  
334:15 402:20  
**committing** 212:16  
**commodity** 117:9  
124:12 130:1  
**common** 34:5 78:21  
86:1 157:11 222:6  
235:12 236:4,5,20  
237:3  
**communicate** 35:9  
120:6 121:6  
**communicating** 94:13  
**communication** 16:18  
35:2 59:21 100:8  
114:11  
**communications** 2:19  
4:5 34:21 35:15 36:4  
55:8 56:4 65:11 382:4  
382:6  
**communities** 18:5,8  
72:7 109:9,11 252:11  
252:21 306:14,19  
340:4,11 346:7,16  
347:19,21 348:17,20  
349:2,3 350:10 354:4  
357:11,18 358:3  
360:13,22 361:14  
365:5,17,18 366:8  
367:19 368:1,2 373:3  
373:12,17 381:6  
386:13  
**community** 2:6 95:18  
95:21 99:19 108:10  
112:2,3,9 120:15  
124:8 181:1 192:14  
206:9 215:14 360:21  
361:4,7 365:12  
367:19,20 368:12  
391:8  
**companies** 113:21  
118:6,9,10 119:12  
**company** 30:19 109:21  
146:9,10 215:7  
221:17 222:1 377:20  
**compared** 17:1 283:3  
**compelled** 254:14  
**compete** 137:4 323:18  
**competing** 323:1  
**competition** 109:2

114:22 274:9 284:18  
**competitive** 111:4  
 138:19  
**competitor** 75:16  
**competitors** 71:11  
 273:3  
**complain** 19:4 285:6  
**complement** 392:2  
**complete** 239:4 251:2  
 337:3  
**completed** 27:1 342:9  
**completely** 24:3 58:20  
 123:12 220:14 343:22  
 379:8  
**complex** 75:21  
**complexities** 156:1  
 236:11 243:10  
**complexity** 241:21  
 260:16  
**compliant** 53:20  
**complicate** 134:15  
**complicated** 101:18  
 143:18 227:20 401:19  
**complimented** 300:4  
**comply** 323:2  
**component** 65:2 77:2  
 113:8 162:19 311:7  
**components** 102:2  
 110:9  
**composition** 28:13  
**comprehensive** 154:11  
 157:4,19 369:7  
**comprise** 154:16  
**computational** 270:13  
**computer** 200:15  
 302:15 313:22 314:2  
 325:9  
**computers** 327:10  
**computing** 270:7,15  
**concept** 41:5 72:14  
 98:4,5 99:9 112:10  
 345:22  
**concerned** 49:13 114:4  
 121:13 313:9 395:12  
**concerns** 31:1 106:10  
 106:10 113:22 142:9  
 306:18 340:4 368:5  
**ConCiencia** 9:21  
**concluding** 179:14  
**conclusion** 246:9  
**concrete** 175:21 253:4  
 253:5,14  
**condition** 158:5  
**conditions** 164:4  
 169:12 227:16 384:9  
**condolences** 25:19  
 321:13  
**conductive** 106:17

**conducted** 155:12  
**confer** 26:5  
**conference** 213:12  
**confess** 332:16  
**confidence** 206:3  
 366:21  
**confident** 232:20  
**confidential** 89:4,12  
**confidentiality** 89:11,17  
 90:2 389:14  
**confirm** 58:9 69:15  
**confirmation** 321:4  
**confirmed** 8:10,19  
 263:4 277:16  
**confirming** 240:19  
**conflict** 5:7 122:3 136:3  
 318:10  
**conflicted** 135:20  
**conflicting** 104:9 108:2  
**conflicts** 101:15 104:11  
**conformed** 338:22  
**confuse** 288:15  
**confusing** 67:21 132:1  
**confusion** 353:19  
**Congratulations**  
 316:17  
**Congress** 108:20  
 118:13 126:15 136:10  
 136:17 182:12 191:19  
 213:3 285:4 327:4  
**congressional** 121:9  
**congressmen** 16:17  
**conjecture** 310:8  
**connect** 72:20  
**connected** 178:6  
**connection** 72:11 76:14  
 348:7 349:7  
**connectivity** 348:4  
 349:11  
**conscious** 189:12  
**consensus** 155:13  
 184:13,21 185:2,4,10  
 229:15 231:18,19,20  
 232:9 245:2,3,5,22  
 246:5,14 247:3  
 250:11 251:2  
**consensus-based**  
 184:16,18  
**consequences** 134:18  
 161:22  
**consequently** 193:14  
**Conservacion** 9:21  
**conservation** 1:15,21  
 6:12,22 8:8 21:2  
 45:10 64:7 66:15,16  
 192:8,9 217:5,22  
 218:2 234:6 283:11  
 315:21 343:19

**conserve** 18:9 158:9  
 266:16  
**conserving** 287:22  
**consider** 7:5 21:13  
 68:22 87:16 101:3  
 145:20 160:9 164:2  
 164:10 341:11 392:10  
**considerable** 120:13  
**consideration** 206:5  
 237:20  
**considered** 177:19  
 339:20  
**considering** 239:3  
 259:6 260:15 265:1  
**consistent** 24:3 106:17  
**consolidating** 203:1  
**consortiums** 111:10  
**constant** 198:8 230:8  
 364:4  
**constituents** 16:15  
 35:9  
**constrained** 252:5  
**constraints** 101:8  
 148:13 386:11  
**construct** 21:4  
**constructed** 183:17  
 189:9 196:21 226:11  
**constructing** 199:10  
**construction** 201:1  
**constructively** 175:18  
**construe** 318:10  
**Consultant** 2:3,7  
**consultations** 20:3,7  
 103:12 144:2  
**consume** 373:5  
**consumed** 33:10  
**consumer** 66:6 70:13  
 75:19 77:13 81:17  
**consumer-facing** 66:8  
 66:10  
**consumers** 68:6 84:22  
 86:20 386:14  
**consumption** 114:4,6  
 395:3  
**contact** 54:12  
**contacts** 48:10  
**content** 37:4,12,13 39:1  
 39:21 40:8,9,15 41:6  
 41:11,19 42:3,16  
 43:16,17 46:12 53:11  
 53:18 54:3,4 55:12  
 61:11,13  
**contentious** 108:9  
**CONTENTS** 4:1  
**context** 95:2 227:8  
 243:15  
**continent** 273:14  
**continual** 131:12

**continually** 211:11  
**continue** 41:22 42:5,21  
 63:8 64:1 86:18 87:14  
 88:2 93:7,9 119:6  
 147:4 248:22 254:12  
 293:3,13 322:13,20  
 373:12,13,18  
**continued** 77:1 321:10  
**continues** 373:8  
**continuing** 63:9 193:21  
 205:14 295:22  
**contracts** 252:8  
**contribute** 31:4 102:7  
 284:1  
**contributed** 211:4  
**contributing** 228:22  
 276:18  
**contribution** 190:8  
 293:2 324:15  
**contributions** 280:16  
 328:20  
**control** 173:1 191:3,8  
 401:4  
**controls** 265:15  
**controversial** 223:6  
**convene** 156:5  
**convened** 119:9  
**conversation** 12:2 55:1  
 63:18 65:5,13 66:4  
 67:1 69:7,21 76:2  
 93:7 126:3 146:18  
 233:5 330:17 352:14  
 354:13 361:3 374:16  
 399:5  
**conversations** 62:10  
 64:13 69:4 73:15 75:2  
 76:4,9 122:1 242:2  
 367:2  
**convey** 402:5  
**convinced** 267:16  
 329:12  
**cool** 204:3 216:17  
**cooler** 216:19  
**cooperation** 323:14  
**cooperative** 22:18  
 318:16,22  
**cooperatively** 203:2  
 217:3  
**coordinate** 106:22  
 137:8  
**coordinated** 104:22  
**coordinating** 143:19  
**coordination** 19:3  
 235:15  
**copper** 129:22  
**copy** 261:14  
**coral** 343:19  
**core** 22:15 23:14 144:1

**corn** 117:10  
**corner** 11:21 63:21  
 188:10  
**cornerstone** 20:18  
**corporate** 136:4,6  
 249:13  
**Corporation** 1:14  
**Corps** 103:11 104:20  
 183:17 184:1  
**correct** 162:7,8 299:11  
 301:15 308:9 315:18  
 315:22 326:3  
**correctly** 398:15  
**cost** 20:22 36:9 212:18  
 285:3 289:8 303:22  
 378:17,18,18  
**Costco** 91:22  
**costly** 214:21  
**costs** 21:2  
**Coulee** 151:12 223:1  
**council** 10:8,9,9,15  
 13:11 15:4,9 19:2  
 26:5,6,6 32:14,17  
 35:16 46:21 55:8 59:4  
 59:5,9 75:9 81:13  
 105:16 106:1 131:13  
 297:5 355:17 356:8  
 356:13 357:14 358:11  
 358:15,18 382:11  
**council's** 355:20  
**councilmatic** 29:10  
 81:3  
**councils** 9:18 21:14  
 29:17 58:3 59:4,8  
 60:18 61:3 106:2  
 107:2 359:17 383:1  
**counsel** 67:9 68:19  
**count** 400:13  
**counter** 73:15 83:16  
 84:3  
**countering** 284:21  
**counterpart** 277:12  
**countless** 196:12  
**countries** 135:15 137:5  
 311:12 323:2 383:7  
**country** 16:7,10 17:8  
 20:20 21:18 30:15  
 47:19 48:1 64:11  
 79:22 81:4,11 88:6  
 111:10 128:22 130:3  
 136:14 188:10 223:22  
 224:21 227:4 261:6  
 263:17 268:10,15  
 273:7 321:11 370:18  
**counts** 302:16  
**coup** 79:16  
**couple** 9:8 20:11 76:13  
 95:11 108:9 111:3

113:20 117:3,4 118:4  
 134:3 135:1 139:18  
 149:19 152:3 154:21  
 155:20 172:10 175:22  
 192:17 193:10 203:20  
 224:2 229:20 233:17  
 233:22 251:14 269:14  
 275:21 282:20 303:16  
 321:14 326:3 339:20  
 369:15 382:14  
**course** 22:21 27:5  
 73:14 91:5 120:12  
 176:7 177:3 181:4  
 245:7 266:7,14  
 282:11 299:18 306:20  
 326:6 361:22 377:18  
 382:22 390:13 395:7  
**court** 11:21 57:1 192:18  
 192:18,21 264:6  
**courtroom** 175:16,17  
 257:5  
**courtrooms** 252:18  
**cover** 369:7  
**covered** 282:17  
**covers** 157:4 176:22  
 177:4 188:6  
**cows** 108:16  
**crashes** 208:7  
**crazy** 217:13  
**create** 41:5 73:11  
 116:11 130:2 314:9  
 348:16 359:7  
**created** 196:6 197:5  
**creates** 224:7 292:9  
 390:5,6  
**creating** 41:11 196:17  
 197:13 353:18  
**creation** 283:21  
**creatively** 213:20  
**creativity** 140:9  
**credibility** 128:8,14  
**credible** 315:12  
**credit** 134:1  
**creek** 202:20,21  
**creeks** 195:16 216:6  
**crisis** 227:11 325:16  
**crisp** 187:7,8  
**critical** 51:20 65:2  
 76:15 77:1 326:15  
 347:14 384:15 402:17  
**criticizing** 119:11  
**croc** 307:15 308:1  
**crocodile** 307:20 308:1  
**crop** 117:8 142:4  
**crops** 218:13  
**cross** 223:21  
**crowd** 391:9 400:8  
**crucial** 174:12

**cruise** 304:3 326:22  
**Cuba** 308:2  
**Cuban** 307:19,22  
**culinary** 66:19 74:4  
 84:9  
**cull** 52:1  
**culminated** 64:8  
**cultural** 234:14 238:3  
**culturally** 108:18  
**culture** 82:7 127:8  
 136:4,6 250:19  
**curious** 173:2 315:10  
 325:20  
**current** 22:10 33:13  
 38:14 39:18 43:13  
 45:16 46:3 50:20 51:7  
 51:13 95:11 162:21  
 164:4 168:19 238:15  
 268:6 286:5 342:11  
 350:6 353:6,8  
**currently** 5:12 8:5,11  
 8:14 10:8 66:10 92:9  
 110:18 113:18 137:3  
 151:10,20 164:15  
 253:3 346:20 362:4  
 375:16  
**curve** 24:20 52:15  
 183:13 270:2 296:14  
 297:15 298:7 299:18  
 331:21  
**customer** 37:17  
**cut** 231:13  
**cutting** 299:4  
**cycle** 200:18 228:5  
**cycles** 191:16

---

**D**


---

**D.C** 15:16,18 114:19  
 183:1  
**DAA** 9:1  
**dad** 187:21 267:7  
**daily** 51:21 55:21  
 218:19  
**Dalles** 178:20  
**dam** 150:20 151:4  
 157:17 165:6,8  
 178:18,20 197:18  
 198:7,12 199:1,22  
 201:15 204:9  
**damage** 279:19 280:1  
 280:10 327:19  
**damages** 279:16,19  
**dampener** 74:18  
**dams** 178:18 179:12  
 183:14,18,21 197:16  
 197:17,21,22 202:16  
 202:17,19 215:21  
 223:1,16 244:14

250:19  
**dancing** 27:2  
**dare** 355:16  
**darn** 218:8 219:8  
**database** 143:15 286:4  
**date** 37:12 150:6 234:1  
 323:22  
**daughters** 322:11  
**Dave** 6:3 76:10 77:21  
 396:20 397:6  
**DAVID** 2:2  
**Davis** 140:22  
**day** 13:22 14:1 50:12  
 70:15 129:2 229:4,5  
 257:9 263:14 282:12  
 284:21 286:9 290:22  
 323:1 355:7 373:20  
 373:21 403:9  
**day-to-day** 58:10  
 318:13  
**days** 14:19 104:6  
 214:22  
**DC** 56:9  
**dead** 165:22 217:18  
 225:22  
**deal** 33:14 34:12 35:4  
 103:5 134:1 152:4  
 198:18 209:11 226:5  
 247:3 257:11 267:22  
 330:1,4 346:2 356:14  
 357:10 363:18 376:5  
**dealer** 89:8,9  
**dealerships** 220:10  
**dealing** 69:14 97:17  
 150:15 151:9 202:5  
 206:8 336:1 359:8  
**deals** 58:9 337:21 338:2  
**dealt** 85:19 107:11  
 153:19 170:14 243:11  
**death** 325:2  
**debate** 96:15,18,18  
**debris** 216:12  
**decade** 124:20 202:22  
**decades** 94:18 160:15  
 175:11,11 195:22  
 305:3 316:8  
**December** 23:12 109:3  
 239:3  
**decentralized** 393:11  
**decide** 231:12 333:18  
 347:7  
**decided** 190:21 248:3  
 267:4  
**decides** 285:4  
**decision** 189:12 260:20  
 278:5,15 301:12  
 390:2  
**decision-making**

184:16  
**decisions** 21:1 107:14  
 286:11 382:1  
**decline** 311:18  
**declines** 251:21 283:4  
**declining** 22:16 304:7  
**dedicated** 46:11 57:19  
 182:3,12  
**deep** 53:6 85:4 178:6  
 178:10 218:4 264:20  
**deeply** 252:4,5  
**Deepwater** 350:3  
**defense** 289:14 298:15  
 298:21,22  
**defer** 185:7  
**deficit** 23:6 97:15,18  
 286:17 287:3  
**define** 192:19  
**defining** 245:22  
**definitely** 42:1 213:17  
 292:20 366:16 374:13  
**definition** 167:9,17  
 231:21  
**degree** 132:4 267:13  
 313:12  
**degrees** 194:12 267:19  
**Delaware** 105:13  
**deliberation** 100:2  
**delist** 173:2  
**delisted** 159:22 160:9  
**delisting** 159:6,11  
 160:10 171:20 172:18  
 174:6 206:21  
**deliver** 243:2  
**delivered** 147:13 148:9  
**delivery** 226:14  
**demand** 88:6 94:17,19  
 96:11 322:5  
**demanding** 137:14  
 229:1  
**demands** 92:2 384:1  
**demo** 35:19  
**demonstrate** 43:9  
 302:6  
**demonstration** 102:22  
 126:16  
**denial** 375:16  
**deniers** 378:16  
**dentist** 266:12  
**Denver** 200:14 213:13  
**department** 1:1 67:10  
 78:15,16 111:4,6  
 187:19,22 298:22  
 323:13 328:4,8  
**departments** 323:12,15  
**departure** 94:11  
**depend** 281:11 325:17  
**dependency** 194:7

**dependent** 227:12  
 252:12 383:13  
**depending** 93:8 142:20  
 397:1  
**depends** 166:18  
**depicted** 280:17 281:9  
**depiction** 269:22  
**depicts** 270:6  
**depositories** 392:1  
**depth** 64:21 243:10  
**deputy** 2:18,19 34:20  
 109:16  
**deregulation** 285:13,15  
**derive** 33:6  
**describe** 233:6  
**described** 185:14  
 262:22 340:3 349:19  
 384:22 394:9,10  
**describes** 341:14  
**describing** 210:14  
 225:11 243:7  
**description** 342:4  
**descriptions** 237:7  
 376:20  
**desert** 187:17  
**deserve** 134:1 321:12  
**design** 114:21 115:6  
 199:12,14,20 314:10  
 385:11,17,17,21  
 387:17 388:22 389:5  
**Designated** 2:13,20  
 7:18 11:12  
**designed** 188:22  
**designers** 115:4  
**designing** 387:18  
**desirability** 164:10  
**desire** 403:4  
**desired** 234:4 236:6  
**desktop** 40:12 43:21  
 44:1  
**desperate** 394:20  
**desperation** 222:5  
**destroyed** 370:4  
**detail** 30:7 64:21  
 243:10  
**details** 53:21 134:6  
 172:12 173:8 186:21  
 244:1 275:5 342:3  
 384:4  
**determine** 247:8 385:2  
**determined** 75:4  
**develop** 63:9 137:9  
 215:8 398:3  
**developed** 22:2 36:5  
 66:9 92:8 107:16  
 113:6 156:21 188:20  
 223:12 299:5 300:19  
 393:12

**developing** 153:12  
 155:8 192:1 193:6  
 289:18 300:1 346:1,6  
 397:20  
**development** 2:6 18:11  
 97:5 102:19 103:5  
 109:15 117:13 124:18  
 138:21,22 139:7  
 140:17 141:12,19  
 142:11 153:1 155:10  
 163:9 190:10 296:20  
 323:11  
**developments** 298:5  
**device** 270:11  
**devil** 134:6  
**devolves** 319:13  
**diagnostics** 109:22  
**dialogue** 25:13 326:11  
**dias** 9:19  
**Dick** 1:20 6:20  
**dictated** 362:12  
**difference** 43:13 71:1  
 173:7 208:6 317:12  
**differences** 290:15  
**different** 11:6 16:19  
 17:7 24:18 36:11,17  
 36:18 45:7 47:3 48:19  
 49:6,7 52:4 61:15  
 64:19 65:8 81:11  
 87:21 95:6,9,15,17,18  
 96:1,3 97:8 127:17  
 129:9 132:7 142:21  
 145:20 152:4 153:17  
 153:21 154:6,15,19  
 155:16 156:3,15  
 157:14 160:4,5  
 161:17 163:9 167:11  
 167:12 176:2,3 185:9  
 185:18 186:1 190:4  
 194:6 195:18 200:5  
 206:11 214:5 218:13  
 231:22 235:10 238:20  
 242:6 251:4 252:15  
 261:18 273:10 280:18  
 281:10 293:17 297:6  
 301:2 303:11,17  
 304:4 333:13 341:20  
 353:4 354:7 355:14  
 356:2,11 358:15  
 359:11 374:5 383:6,7  
 383:9 393:5,16 396:2  
**differently** 214:16  
 374:17  
**difficult** 21:1 84:22  
 108:9 122:5 137:1  
 139:8 163:2 340:7  
 372:10 373:7 374:3  
**difficulties** 19:6

**digging** 199:21  
**dilapidated** 214:2  
**dime** 267:20  
**dimensions** 96:6  
**diminished** 170:20  
**dinner** 63:18  
**direct** 98:17 255:8  
**directed** 123:13 275:15  
 291:18 362:17  
**direction** 27:14,18 28:6  
 100:3 105:6 121:1  
 132:8,13 200:2 232:7  
 275:1,17 278:13  
 297:14 315:9 353:4  
 364:11  
**directly** 20:6 55:17 75:2  
 97:11 121:22 178:2  
 309:15 323:5 351:19  
 353:15 386:15  
**Director** 1:15,16,17,19  
 1:21 2:2,3,5,9,13,19  
 2:21 3:14 6:1,4,7,11  
 6:21 7:16,20 9:12,20  
 11:16 15:5 94:4  
**directors** 19:15  
**disabilities** 54:1  
**disagree** 375:6 376:13  
**disappeared** 377:13  
**disaster** 142:4 268:18  
**discipline** 274:8  
**discuss** 142:11 343:10  
 386:21  
**discussed** 26:19  
 222:22 260:4 261:17  
 284:5 354:6 399:13  
**discussing** 28:9 32:9  
 259:4 260:3 363:8  
**discussion** 58:17,18  
 67:2 95:17 96:17  
 100:2,9 120:4 121:9  
 149:17 160:3 169:18  
 170:3,12 195:21  
 249:20 262:14 337:1  
 340:10 384:11 392:13  
 401:22  
**discussions** 14:12  
 25:10 80:21 97:19  
 101:10 102:3 104:20  
 105:4 120:12 123:3  
 126:13 141:14 191:18  
 237:22 360:20 381:3  
 383:11 399:6  
**disease** 109:22  
**dismissing** 296:3  
 308:18  
**disparate** 34:8 156:3  
**dispel** 79:14  
**displace** 118:15

**disputes** 123:9  
**disregarding** 295:6  
**disruptions** 375:1  
**disruptive** 376:13  
**dissenter** 246:6  
**dissenters** 246:7  
**distance** 201:14 250:8  
**distill** 49:12  
**distinction** 306:6  
**distinguished** 13:10  
**distribution** 83:1 84:7  
**distributor** 10:14  
**distributors** 69:13 98:1  
**district** 3:11 186:15  
     187:3 213:8  
**districts** 218:20  
**distrust** 250:1  
**ditches** 208:1 218:6  
     226:11  
**dive** 53:6 76:3 400:13  
**diver** 281:3  
**divers** 39:14  
**diverse** 117:15 150:19  
**diversion** 202:19  
**diversions** 192:4,5  
     203:1  
**diversity** 173:16  
**diving** 400:8  
**division** 19:15 332:13  
**Djibouti** 273:13  
**doc** 300:20 381:10,10  
**docks** 219:18  
**document** 17:14,15,19  
     18:4 53:22 335:5  
     338:18,21 352:11,16  
     355:2 363:8,13  
     380:18 383:12 387:10  
     387:20 388:16 389:12  
     392:15 394:8  
**documentation** 243:14  
**documents** 34:6 342:6  
**DoD** 274:22 284:15  
     298:16 299:6 329:14  
**DOE** 111:14  
**doing** 23:15 47:4 48:21  
     51:4 52:13 54:15  
     63:20 64:13 71:2  
     72:21 76:12 77:17  
     78:13 81:14 86:22  
     87:12 99:13 103:16  
     125:16,19 127:13  
     132:8 138:11 140:7  
     146:9 170:16 171:19  
     171:19 175:4 180:20  
     181:5,9,12 182:10  
     190:18 195:15 196:16  
     198:2 201:4 204:19  
     209:1,2,18 214:21

217:2 224:16 228:21  
 231:10 233:11 242:3  
 244:4,17 254:5  
 265:19 271:18 280:3  
 293:6,16 297:13  
 301:8 302:11 309:11  
 309:15,17 314:5  
 315:17 324:9 327:12  
 329:14 333:13 334:20  
 336:8 338:16 339:10  
 354:3,10,11 356:6  
 361:11,15 362:19  
 366:15 387:4 391:18  
 396:13  
**dollar** 355:8 378:8  
**dollars** 79:18 177:22  
     190:6 202:22 210:13  
     210:19,22 213:16  
     215:13  
**dollars'** 125:1  
**domain** 271:22  
**domestic** 81:22 97:16  
     109:10 118:2 137:15  
     138:20 323:17 343:20  
**domestically** 130:4  
     322:6  
**Donald** 87:5  
**Donaldson** 2:2 6:3,3  
     76:11 77:6 397:12  
     398:16 399:16  
**donors** 126:9  
**door** 143:1 242:1  
     244:19 252:16  
**Doremus** 2:18 4:7 8:2,3  
     94:9 120:1 282:17  
     316:1  
**dot** 93:17  
**double** 311:7 315:4  
**doubled** 279:19,20  
**doubling** 311:15 316:11  
**doubt** 257:7  
**downstream** 178:20  
     196:14  
**downtown** 163:14  
**dozen** 238:19,20  
**dozens** 16:16  
**Dr** 8:2 94:6,9 100:20  
     113:19 117:2 119:8  
     120:1 123:2,22 124:3  
     126:2 133:10 141:11  
     143:6 146:7 277:13  
     282:17 316:1  
**draft** 83:18 106:6,11  
     123:7 137:12 178:6  
     334:17 335:5 337:14  
     352:13,18 369:2  
     379:12  
**drafted** 337:16

**drafting** 26:20,22 33:18  
     102:14 146:14 337:4  
**drain** 179:9  
**draining** 177:1  
**dramatic** 292:5  
**draw** 365:13  
**drink** 380:22  
**drinking** 16:21  
**drip** 218:10,14  
**drive** 80:13 100:12  
     151:20  
**driven** 39:22 91:21  
     278:8  
**drivers** 101:7 269:12  
**drives** 68:6  
**driving** 185:10 199:18  
     276:19  
**drones** 302:7 304:2  
     330:8  
**drought** 191:1,6,14,16  
     193:22 196:7  
**droughts** 194:1 214:14  
**drum** 119:18,21  
**dry** 277:12 331:20  
**drying** 195:15  
**due** 21:22  
**dug** 125:5  
**dynamical** 75:7 292:9  
     355:13,18 385:3  
**dynamics** 16:18  
**dynamite** 215:22

---

**E**


---

**earlier** 114:15 126:4  
     175:7 187:18 189:15  
     193:7 232:3 251:9  
     334:19 370:14 386:8  
**early** 188:22 198:12  
     215:20 229:9  
**earmarks** 325:1,2  
**earning** 373:18,19,20  
**earth** 268:8 269:6 275:6  
     275:21 277:11  
**easier** 33:21 36:15  
     108:13 141:18  
**easily** 257:5 297:10  
**east** 2:9 6:7 9:6 79:10  
     88:20 144:18 146:6  
     244:12 293:18 377:20  
     379:19 383:7 400:8  
**easy** 253:6  
**eat** 74:7,11,12 77:14  
     86:21 114:1 287:2  
**eating** 262:16  
**Eberhart** 3:10 4:11  
     147:21 149:20,22  
     186:10,13,16,20,22  
     207:10,15 210:3,6,8

210:11,17 211:22  
 215:2 217:21 219:12  
 220:18 221:9 223:3  
 224:9 226:8 229:2  
 232:2 233:10  
**echelons** 131:12  
**echo** 80:19 258:10  
**ECMWF** 275:12  
**eco-** 384:19  
**eco-based** 384:2  
**ecological** 96:1 238:3  
     392:17 402:7,12  
**economic** 33:5 49:1  
     92:18 138:21,22  
     139:7 140:17 141:18  
     234:11 238:4 268:16  
     280:16 283:18,21  
     285:13 289:13 296:2  
     323:11 328:5,19  
     358:3 359:22 360:8  
     360:13 373:15  
**economically** 72:16  
     357:11  
**economics** 347:22  
     348:8 349:8  
**economies** 272:4 281:7  
     295:14 340:5  
**economy** 72:17 189:22  
     194:3 286:1 288:21  
     295:19 301:8 320:8  
     322:4 384:15  
**ecosystem** 44:16  
     161:17 162:6 164:15  
     167:13 193:9 197:2  
     205:16 208:8 258:1,3  
     258:7,12 335:21  
     337:6 384:19 392:19  
     400:4 402:19,20  
**ecosystem-** 44:14  
**ecosystems** 6:18  
     381:18  
**EDF** 78:17  
**edge** 219:21 299:4  
**editing** 344:21  
**edits** 334:7  
**eDNA** 303:7  
**educate** 48:1  
**educated** 268:1  
**educating** 48:18  
**education** 67:5,14 68:5  
     71:3 73:9 113:7 219:1  
**educational** 49:11  
**educators** 38:8  
**EEZs** 286:18  
**effect** 64:16 114:21  
**effective** 38:22 66:3  
     102:16 126:18 128:12  
     235:15 381:15

- effectively** 97:1 110:17  
157:10 158:7 366:15
- effectiveness** 36:9
- effects** 33:12 366:4
- efficiencies** 32:7  
329:13
- efficiency** 18:14 32:10  
36:8 391:2,10
- efficient** 19:7 23:20  
102:10 106:8 144:4  
155:22 179:17 304:12
- efficiently** 104:19  
107:18 157:9
- effort** 25:7 60:9 78:13  
83:17 92:19 119:6  
144:10 228:21 234:2  
240:17 277:19 288:20  
289:3 292:16 304:9  
397:9,17
- efforts** 32:17 64:20 74:3  
80:10,11 86:16 91:22  
118:5,19 144:19  
156:15 157:3 235:21  
236:3 288:10 295:5  
309:12 318:17 324:2
- egg** 59:7
- eggs** 378:2
- eight** 178:18 183:13
- either** 150:12 156:22  
158:8 207:1 228:9  
229:19 279:10 300:18  
314:12 323:4 352:9  
375:22 400:16
- element** 160:3 218:1  
324:4
- elements** 98:14 99:13  
269:1 284:4
- elephant** 374:17
- elevation** 194:8,9  
198:10 199:16 200:5  
201:14
- elevations** 200:5  
211:12
- eligible** 231:6,7
- eliminate** 19:18 37:12  
394:22
- eliminating** 220:14
- ELIZABETH** 2:5
- Ellensburg** 187:3,20
- Elum** 198:5 199:1  
200:10
- email** 127:4 337:11
- embedded** 148:1 279:7  
279:7
- embrace** 321:1 357:8
- emergency** 279:4,8  
341:1 362:11 383:5
- emerging** 90:3
- emotions** 113:3
- emphasis** 22:13 268:15  
294:19 362:18
- emphasize** 369:14
- employee** 319:6,9
- employees** 38:5 218:20  
400:12
- employing** 15:9
- empowering** 340:11
- empties** 177:15
- enable** 385:2
- encourage** 62:21 120:8  
317:15 397:9
- endangered** 20:2  
145:10,10,11 152:6  
159:4,5,11,20 160:13
- endemic** 308:1
- endless** 302:20
- endorsement** 96:10  
99:8,22 137:22
- endorsing** 98:3 138:10  
138:12
- ends** 249:1
- enemy** 116:5 164:5
- energetic** 25:1
- energy** 111:4,6,9 206:1  
281:14 289:14
- enforced** 86:5,6
- enforcement** 128:12
- engage** 25:13 108:5  
172:9
- engaged** 63:13 279:10
- engagement** 113:13  
171:6,7 172:14  
236:19
- engaging** 289:8 332:18
- engine** 37:6 40:17,17  
103:5 109:16
- engineering** 179:5  
314:11 371:12
- Engineers** 103:11  
104:21 183:17 184:2
- England** 83:21 88:21  
145:18
- enhance** 22:18
- enhanced** 236:9
- Enhancement** 191:20
- enhancements** 41:22  
42:2
- enhancing** 23:2
- enjoy** 332:22
- enjoyable** 217:10
- enjoyed** 283:8 296:14
- enormous** 220:15
- enormously** 99:21
- ensure** 18:4 398:6
- ensuring** 18:7 21:14
- entanglement** 108:2
- enter** 41:2,6
- entered** 283:3 291:3
- enterprise** 100:15
- entertain** 363:14
- entertaining** 335:2
- enthused** 121:3 130:20
- enthusiasm** 331:10
- entire** 56:11 91:20  
126:22 163:8 244:3  
260:16 282:2 337:4  
339:2 384:19
- entirely** 312:12 329:2
- entirety** 56:22
- entities** 185:22 213:3,5
- entity** 242:9
- environment** 95:3,5,9  
95:14,16 97:7 101:14  
101:18 103:10 111:8  
228:9 359:1
- environmental** 2:3  
95:18,21 96:1,5 102:5  
103:22 104:2,4 107:4  
124:8 144:3 155:3  
182:19 192:14 197:20  
205:9 227:16 274:13  
311:1 349:20 400:5
- environments** 384:10
- envision** 104:14 239:16
- envisioning** 154:11  
240:3 365:10
- EPA** 103:14 104:21  
205:10 221:21
- epic** 265:6
- equal** 285:14
- equation** 79:2 366:3
- equator** 88:12
- erase** 23:5
- Erika** 1:15 6:9 124:15  
220:21 336:12 349:15  
369:11,15 385:7  
387:9 388:15 391:20  
394:3 397:1 398:5
- Erika's** 334:7 351:14
- ESA** 20:8 151:15  
152:13 153:6,8,10,15  
156:21 157:4,18  
158:3,4 159:17,21  
171:20 174:13 235:8
- especially** 30:22 42:7  
51:16 53:3 172:11  
179:18 230:4 293:18  
308:15 309:16 318:18  
375:15 391:11 403:9
- Espinoza** 2:3 9:19,20  
71:17 90:17 165:21  
167:21 305:21 307:16  
307:19,22 309:8,14  
343:13 370:12
- essentially** 31:21  
177:10 179:7 342:19
- establish** 134:14  
149:12 340:11
- established** 291:19  
320:9
- establishing** 65:15  
156:8
- estate** 79:6
- estimate** 177:22 211:2  
305:4
- estimation** 315:3 366:1
- estuarine** 384:10
- estuary** 182:11
- et** 10:10 39:17 49:2 59:6  
63:3 164:12 229:20
- European** 275:12 277:6
- evacuating** 279:11
- evaluate** 243:21 244:6
- evaluated** 173:19
- evaluation** 103:19  
143:12 163:5
- evening's** 62:9
- events** 198:1 278:7  
295:18 306:12 307:3  
307:7 344:3 350:1,6  
353:12 373:4 375:9  
375:10
- eventual** 179:10 180:10
- eventually** 45:16 46:4  
111:9
- evergreen** 187:13
- everybody** 5:4 8:4 9:20  
12:3 14:4 49:5,22  
55:5 132:12 145:1  
147:15 149:10 187:1  
191:2 192:20 193:16  
193:17 205:17,18  
212:3 216:20 217:6  
229:9 232:6,22  
235:13 242:5 255:18  
262:13 264:13 266:8  
268:20 307:15 310:2  
315:19 326:6 336:11  
369:4 383:2 392:11  
395:11
- everybody's** 205:18  
229:13
- everyone's** 5:18
- evidenced** 113:14
- evolution** 84:15
- evolutionary** 159:20
- evolve** 121:10
- evolved** 229:22
- evolving** 326:11
- ex** 1:17 2:2,4
- ex-vessel** 378:13
- exact** 324:5

**exactly** 30:16 33:19  
39:12 41:3 47:9 84:4  
203:7 225:22 243:17  
315:9 320:19 326:3  
394:8 397:13  
**example** 18:3 20:8 22:9  
32:5 52:15 58:14 59:9  
90:22 165:5 166:11  
207:21 282:5 290:16  
326:17 350:2 365:13  
368:19 370:8 372:14  
373:1 398:20 400:17  
**examples** 369:16  
**excellence** 18:12  
**excellent** 28:7 52:14  
146:12,17 379:15  
**exceptional** 50:13  
**exceptions** 125:3  
**excess** 155:15  
**excessive** 279:22  
**exchange** 21:3 310:16  
**excited** 7:22 13:12 73:2  
262:20 263:12,21  
277:4 282:20  
**excitement** 263:19  
300:13  
**exciting** 15:20 222:2,9  
277:20 280:11  
**excluded** 343:22  
**excluding** 361:5  
**exclusively** 99:15  
**excused** 212:12  
**execute** 285:6  
**executing** 289:20  
**executive** 1:16,17,19  
2:2,3,5,9,10 3:14 6:1  
6:4,7 7:20 9:12 11:15  
15:5 19:9 104:16  
334:10 335:4 337:14  
337:21 338:6,9,16  
342:15 345:16,18  
377:1 403:5  
**exercise** 136:22  
**existed** 161:17  
**existing** 41:20 45:4  
53:18 110:17 134:8  
173:21 174:10,10  
196:19 238:17  
**exists** 164:15  
**expand** 23:4 67:11  
248:9 266:2 274:1  
289:10,12 389:7  
390:4  
**expandable** 226:3,7  
227:1,4  
**expanded** 66:3 102:18  
226:15,20 268:13  
275:17

**expanding** 22:22 23:8  
65:20 68:9 104:12  
273:15  
**expansion** 271:22  
**expansive** 188:6  
**expect** 27:3 34:7  
243:22 293:14 360:3  
398:19  
**expectation** 398:17  
**expectations** 257:14  
**expecting** 325:6  
**expedite** 20:9  
**expense** 220:13  
**expensive** 211:16  
223:7  
**experience** 15:20 16:11  
20:15 25:14 26:12,12  
31:6,15 36:8 294:6  
298:15 309:15 317:17  
318:4,13 331:19  
**experienced** 179:3  
**experiencing** 376:1  
**experimental** 277:5  
302:19  
**expert** 277:13 288:7  
331:22  
**expertise** 69:5 143:21  
172:20 206:19 286:19  
**experts** 55:11,13,13,14  
114:20 115:2 206:15  
244:7  
**explain** 372:10  
**explaining** 209:9  
**explicitly** 387:15  
**exploration** 272:20  
**explore** 45:12 49:4  
165:16  
**exploring** 120:19  
164:22  
**exponential** 270:3  
298:12  
**export** 179:10 180:3,10  
**exports** 180:3,14,15  
**expressed** 368:22  
**expressing** 348:5  
**extend** 141:15  
**extending** 67:7  
**extension** 110:3 140:19  
**extent** 110:5 348:5  
389:8,10  
**external** 2:16 61:19  
62:14 80:10,11  
**extinct** 33:10 159:2  
165:6  
**extinction** 33:16 165:10  
**extirpated** 159:4 165:4  
189:17  
**extra** 330:21

**extraction** 281:16  
**extraordinary** 240:17  
272:4  
**extreme** 278:6 296:7  
306:11 307:7 363:22  
373:3  
**extremely** 19:12 20:1  
24:22  
**extremes** 341:1 351:16  
**eye** 14:16 317:15 319:3

---

**F**


---

**fabulous** 261:1  
**FACA** 53:14 184:11  
242:8 264:5  
**face** 63:12 72:18 94:16  
131:6 173:20 261:7  
322:8 357:9,12,18  
365:11  
**faces** 62:6  
**facilitating** 65:8 143:19  
**facilitator** 251:7  
**facilitators** 184:20  
**facilities** 143:2 327:20  
**facility** 199:11,14 201:1  
201:20 220:15  
**fact** 28:8 30:10,14  
34:12 49:13 70:8  
74:15 85:20 113:20  
126:3 133:15 136:1  
160:3 242:7 275:9  
302:1 308:19 314:20  
323:20 361:6  
**factor** 293:14 310:16  
**factored** 160:6 163:16  
**factoring** 163:18  
**factors** 165:10 173:17  
173:19  
**failure** 227:16  
**fair** 138:12 250:18  
**fairly** 120:16 221:14  
316:8 359:1  
**Falcon** 376:7  
**fall** 156:9 186:20 195:13  
241:11  
**falling** 325:13  
**familiar** 17:14 61:22  
62:6 101:16 108:6  
140:18 142:2 150:12  
174:2 179:7 255:13  
255:16  
**families** 85:12  
**family** 108:15 301:17  
321:21 322:14  
**family's** 309:2  
**fans** 202:6,11 301:18  
**fantastic** 252:9  
**far** 11:20 50:19 87:3

130:16 150:6 161:4  
163:18 170:13 175:9  
177:6 183:11 184:21  
197:9 226:1 233:7  
257:13 260:18 293:13  
294:18 329:16 383:2  
**farm** 96:19 108:8,8,11  
108:17,17,18 129:20  
207:20  
**farmed** 65:21 68:16  
96:4 97:4 130:1,13  
**farmer** 73:10 109:19  
187:5 204:19  
**farmers** 140:17 213:9  
213:10 214:17 218:21  
218:21 225:12 226:12  
**farming** 101:20 107:10  
107:22 111:5,12,17  
124:10 140:20  
**farms** 108:15 109:17  
111:16 308:5 321:21  
321:22  
**farthest** 178:17  
**fascinated** 241:20  
**fascinating** 83:14  
**fast** 89:12 271:11 305:6  
356:14  
**faster** 40:3 104:18  
112:5 144:4 296:16  
298:2 356:1 377:13  
**father** 267:3  
**fathom** 88:5  
**faucet** 214:19  
**favor** 212:11,16  
**favorite** 265:4  
**FCRPS** 154:5  
**fear** 54:5  
**feat** 179:4  
**February** 42:8 239:6,7  
246:21 249:2  
**fed** 66:1  
**federal** 2:13,20 7:18,19  
11:12 51:16 56:12,13  
99:18 101:21 102:6,9  
102:14,15,17 103:9  
105:1,9,14 106:15  
107:9,10,17,20  
114:12 115:7 123:4  
134:13,17 135:7  
139:9,14,18 141:9  
143:6,9,17 144:21  
145:7 152:8,21 154:4  
169:20 174:14 192:8  
192:18 241:6 298:9  
319:6,9 323:15 395:9  
396:13,16 400:11  
401:5  
**federal/university/**

103:4  
**feed** 97:22 111:8 118:6  
 311:2  
**feedback** 41:22 44:20  
 44:21,22 48:12,13,17  
 55:20 98:19  
**feeds** 110:1 123:11  
 300:4  
**feel** 16:3 27:19 108:6  
 171:21 228:19 243:19  
 257:3 263:20 266:8  
 297:2 340:20 351:10  
 364:3 368:10  
**feeling** 25:20 263:17  
 377:3  
**feet** 13:14 16:4 178:10  
 194:8 198:9 200:1,1  
 201:13,14 208:4,5  
 257:21  
**fell** 186:19 257:4  
**Feller** 1:15 6:9,9 124:16  
 221:1 349:16 385:12  
 386:2,5 387:14  
 388:18 389:9 390:15  
 392:21 396:10  
**fellow** 74:5  
**fellowship** 140:21  
**felt** 135:5 254:14 353:7  
 367:12 375:6  
**FEMA** 365:17  
**Ferro** 2:19 4:5 34:20  
 35:13,14 48:8 50:7,10  
 51:19 52:19 53:9 55:7  
 61:9  
**festivities** 62:9  
**fewer** 85:13,13 358:1  
**fiddle** 368:5  
**field** 104:7 105:4 110:4  
 142:2  
**fields** 256:16  
**fight** 279:21  
**fight** 115:22 116:12  
**fighting** 192:10 195:22  
 253:20  
**figure** 22:19 29:8 38:20  
 53:10 75:20 90:1  
 105:10 146:4 154:9  
 178:1 364:7  
**figured** 90:5 222:11  
 351:11  
**figuring** 196:2 205:16  
 402:1  
**fill** 130:6,7 215:21  
 216:15  
**filled** 12:7  
**fillet** 359:2  
**fillets** 119:21  
**filling** 177:12

**filter** 41:15  
**filters** 41:13  
**final** 24:5 185:4,12  
 334:7 337:14 342:2  
 342:20  
**finalized** 29:13  
**finally** 22:21 182:14  
 192:22 203:8 252:22  
 351:11 393:9  
**finance** 213:21  
**finances** 346:10  
**financial** 84:21  
**find** 19:7 36:16,22  
 38:15,16 40:15 44:18  
 45:22 48:22 51:7 52:3  
 52:7,15 68:8,12,13,15  
 80:13 85:10 95:4  
 100:10 127:14 189:18  
 211:20 257:3 285:2  
 288:20 330:7 348:6  
 357:22 372:9 399:10  
**finding** 36:17 40:5 44:3  
 79:5 140:9 196:19  
 197:3 203:2 298:18  
 298:19  
**fine** 14:18 26:10 74:11  
 100:7 185:5 318:12  
 336:8 350:4 368:7  
 380:22  
**finfish** 9:6 92:12 107:20  
 117:17 118:7 123:10  
 144:20  
**fingertips** 54:18  
**finish** 158:20  
**finished** 27:19 67:6  
 184:4 220:9 390:18  
**FINs** 397:22  
**fire** 16:21 225:2 278:22  
**fired** 127:4  
**fires** 68:3 225:3 363:21  
**firm** 20:12,15 27:3  
 230:22  
**firmly** 29:4 226:8  
**firms** 120:20  
**first** 5:8 7:9 13:8 14:13  
 17:1,11 18:3 37:1,2,4  
 37:5 53:3 59:8 70:3,4  
 87:17 94:6 101:1  
 102:8 105:2 108:7  
 133:18 135:7 138:6  
 144:17 146:4 148:14  
 149:14 156:9 173:22  
 174:21 180:2 181:14  
 189:5,5 193:22 196:4  
 199:4,12 200:16,20  
 202:16 203:14 205:8  
 205:9 212:2 215:1,18  
 221:16 223:3 226:11

228:11 250:12 268:8  
 269:14 270:22 273:18  
 275:6 278:1 279:4  
 282:22 285:12 294:21  
 307:13 312:1 330:16  
 336:20 338:10,16  
 339:11 340:1 341:17  
 347:15 370:20 375:6  
 387:15 396:21  
**firsthand** 374:2  
**firstly** 260:6  
**firsts** 141:9  
**fish** 9:22  
**fish-based** 96:7  
**fished** 65:21 200:15  
 221:6  
**Fisher** 2:3 5:21,22,22  
 60:15 83:5 132:18  
 142:18 230:10 256:8  
**fisheries'** 257:10 315:5  
**fisherman** 34:1 72:1,10  
 73:10 76:14 82:6  
 88:19 89:5 127:15  
 391:13  
**fishermen** 5:14 10:2  
 11:6 38:6,12,13 42:7  
 44:6 45:21 46:1,5  
 47:13,14 48:2 75:14  
 78:14 86:17,21 89:14  
 89:19 127:9 129:22  
 130:10 131:4 322:12  
 365:4 381:6 386:8,12  
 387:4 389:3 391:17  
**fisherwoman** 72:10  
**fishery** 10:15 13:11  
 15:4 24:7,17 31:9,18  
 32:4 45:18 47:5 69:15  
 75:4 103:12 105:16  
 105:17 108:20 116:7  
 116:7 130:5 176:8  
 227:22 228:1 289:1  
 311:7 337:6 340:13  
 346:2 376:4,9 378:6,9  
 383:13 385:1,4,19  
 386:19 387:21 389:3  
 389:17 393:4,5,8  
**fishery's** 381:16 385:6  
**fishing** 9:7 18:5,6,7,8  
 18:11 20:4,6 21:17  
 31:21 33:6,11 44:5,7  
 44:8 48:6,10,11,21  
 52:6 78:22 85:6,6  
 112:3 129:14,20  
 139:2 155:1 221:14  
 266:6 304:11 318:12  
 350:10 365:12 367:20  
 372:19 373:2 386:12  
 386:13 388:1

**FishNews** 62:19  
**FishWatch** 62:3 63:5,6  
 63:7 66:2 67:3,7,8  
 68:10 75:18 77:11  
 84:16 114:15,16  
**fit** 62:13 90:18 140:1  
 214:7,7 257:22 368:4  
**fits** 95:13 214:6 381:4  
 398:14  
**five** 14:19 15:14 16:3  
 36:18 47:5 79:21  
 83:20 92:4 103:17  
 109:5 111:10 113:10  
 115:9 124:22 125:21  
 189:7,8 190:6 198:4  
 203:19 204:10 208:2  
 208:3 210:13,19  
 211:1 214:15 237:9  
 238:11 251:10 272:11  
 305:12,19 316:22  
 322:1 352:22 378:6  
**fix** 250:8 325:9  
**fixed** 203:11  
**fixing** 41:21  
**flagship** 62:21  
**flagships** 83:20  
**flash** 224:19  
**flashes** 194:16  
**flashing** 216:14  
**flashy** 197:8 276:16  
**flat** 316:8 325:4  
**flavor** 345:19  
**fleet** 22:17 304:8  
 318:20  
**flexibility** 21:10,15  
 23:16 153:12,14  
 160:1 358:8 368:20  
**flexible** 37:9 356:1,8  
 359:7 360:17 362:1  
 381:16 385:3  
**flipped** 201:9  
**flipping** 292:4  
**floor** 191:3,8  
**floods** 214:14 341:2  
 363:19,20  
**floor** 83:20 159:10  
 199:20,20 303:22  
 305:1  
**Florida** 10:7 344:1  
 350:10  
**flow** 18:16 202:5,11  
**flowed** 354:13 361:2  
**flowing** 195:8,11,12,13  
 202:9,14 216:18  
 221:11  
**fluidity** 346:1  
**FMI** 70:8  
**FMIs** 70:20

- FMPs** 362:4  
**focus** 19:16 20:13 31:1  
 43:19 47:21 49:18  
 63:10 78:18 109:9  
 151:6 152:5 158:17  
 170:12 188:7 227:17  
 243:18 268:12,13  
 294:19 343:7 361:12  
 367:18,22 376:22  
 401:21,21  
**focused** 28:15 73:11  
 99:15 101:9 381:19  
 381:20 382:6 386:19  
 387:21  
**focusing** 36:20 44:3  
 204:1 223:4 224:14  
**fold** 47:22  
**folks** 12:13 15:20 32:9  
 32:17 36:3 37:3 39:14  
 46:6,15 51:22 56:9,16  
 57:2 59:15 62:7 71:19  
 72:2,4 83:16 90:9  
 91:9 113:15 127:12  
 144:17 145:20 149:1  
 155:4 182:8,10,20  
 185:8 223:8 226:5  
 230:8 241:8 242:12  
 244:1 247:20 256:16  
 260:21 302:2 303:18  
 306:5,7,18 367:6  
 369:5 370:15 372:14  
 372:18 375:11 402:22  
**follow** 29:7 99:11  
 121:21 143:11 146:19  
 214:11 219:13 246:17  
 401:13  
**follow-up** 120:4 243:6  
 299:10 300:16  
**followed** 203:15,17  
**following** 144:16 286:8  
**food** 66:11 73:19 87:17  
 87:22 88:4 111:8  
 115:3 118:8,9 119:11  
 227:21  
**Foods** 1:19 7:3 301:15  
**foot** 199:22 290:2 304:4  
 398:10  
**footprint** 228:14 291:9  
 310:13  
**force** 12:9 24:10 58:18  
 147:19,22 148:6  
 149:3,13,18 150:3,8  
 150:13 155:7 156:10  
 156:18 170:14 175:6  
 175:14 234:22 238:8  
 239:2 240:15 241:13  
 241:19 245:11 247:15  
 248:13,18,19,22  
 249:21 250:7 255:1  
 256:13 259:5,11  
 291:18,20 359:2  
**forced** 137:4  
**forces** 12:18 222:6  
**forcing** 252:17,20  
**forecast** 327:6  
**forecasters** 279:7  
**forecasting** 278:10,22  
 294:2,10 295:12  
**forecasts** 276:8  
**foremost** 135:8 180:2  
**ForeSee** 37:17 48:15  
**foreseeable** 88:7  
 303:15  
**foresight** 403:10  
**forest** 68:3 154:2  
 166:16 215:13,14  
 216:8,9,10 224:16,20  
 225:16  
**forestry** 151:2 174:15  
**forests** 224:22 225:1  
**forget** 278:22  
**fork** 71:20 72:15 163:10  
**form** 104:15 360:13  
**formal** 26:15 99:8,21  
 100:8 140:8  
**formally** 120:7 121:6  
**format** 240:2  
**formation** 355:3  
**formed** 78:9 120:13  
**former** 109:16 196:17  
 215:6 328:17  
**forming** 97:11  
**forms** 96:2,5,12  
**forth** 38:18 237:14  
**FORTTRAN** 302:19  
**fortunate** 263:13  
**forum** 14:8  
**forward** 8:18 14:7 24:5  
 24:9 25:4,8 30:18  
 34:10 62:7,9 65:2,17  
 68:21 76:9 92:20 99:2  
 100:17 109:12 110:8  
 113:8 115:15 116:22  
 122:2 128:16 155:19  
 169:19 185:21 193:18  
 217:6 239:11 243:19  
 244:5 269:13 271:14  
 284:21 286:1 287:10  
 289:19,20 291:12  
 321:2,4 327:12  
 330:22 351:21 360:6  
 371:20 373:22 380:16  
**fostering** 344:14,15  
**fosters** 391:13  
**found** 121:2 149:5  
 196:8 199:13 323:22  
 362:5  
**foundation** 1:16 6:11  
 9:22 124:21 320:9  
**four** 14:19 15:14 16:3  
 79:21 102:1 109:5  
 110:9 113:10 126:11  
 154:17 169:9 178:12  
 179:12 190:5 199:3  
 207:5 210:18 245:17  
 352:22 361:13  
**fourth** 103:7 263:14  
**fragmented** 120:16  
**frame** 95:10 160:12  
 347:1  
**framework** 23:18 29:4  
 236:20 286:6 295:1  
 355:19 360:5 362:14  
 368:18 376:7 381:21  
 382:7,9,13 402:9,14  
**frameworking** 31:15  
 32:6  
**frameworks** 24:7 346:1  
 362:10 376:12 382:15  
**France** 150:17  
**frankly** 58:8  
**fraud** 91:14 92:5,18  
**free** 92:10 267:15 304:6  
**Freeze** 265:13  
**frequency** 294:13,15  
 375:10  
**frequently** 84:1  
**fresh** 79:2,5 92:12,13  
**freshwater** 101:11  
 117:16  
**Friday** 119:18  
**friendly** 9:1  
**friends** 11:7 401:8  
**friendships** 196:18,18  
**frightening** 271:8  
**front** 11:21 17:12 44:5  
 44:11 61:18 82:11  
 100:18 104:1 133:6  
 178:12 261:17 347:8  
 352:11 367:9,16  
 369:8 378:12  
**frozen** 92:12,13 119:21  
**fruit** 218:13  
**frustrated** 77:7  
**frustrating** 133:22  
**frustration** 136:22  
 229:18  
**Fry** 73:17  
**full** 21:19 104:3 215:22  
 277:17 334:14 358:18  
**fun** 363:21  
**fund** 125:17 126:7  
 212:17,21 213:15  
 328:14  
**funded** 139:16  
**funding** 76:22 110:18  
 110:20,21 136:10  
 140:11 181:22 182:3  
 182:12 214:2,5,8  
 219:2 226:13 285:5  
 298:8,9,11 325:17  
**funds** 108:21 136:16  
**funnels** 49:22  
**funny** 372:2  
**further** 124:1 401:17  
**future** 37:9 58:3 88:7  
 96:22 142:20 143:5  
 158:18 209:20 254:9  
 271:4 293:12 310:15  
**future-proof** 37:8  
**futurist** 271:4 310:10
- 
- G**
- Gail** 394:6  
**galas** 187:9  
**Gallaudet** 2:14 4:13 8:9  
 8:20 13:21 24:21 28:9  
 262:7,21 264:2,8,11  
 265:22 266:5,10,19  
 282:19 290:18 291:15  
 295:21 297:18 300:10  
 301:13,17,21 302:18  
 304:19 305:14,18  
 307:12,18,21 308:3  
 309:9 310:1,18,20  
 312:1,4 313:2,6,15,19  
 313:21 315:6,11,15  
 316:13,20 319:4,11  
 319:14,19 320:3,6,14  
 320:17,22 321:16,19  
 323:19 324:8,18  
 325:19,22 326:2  
 329:9 330:14,16  
 331:14 332:2,6,9,21  
**gallery** 374:14  
**gaps** 362:21  
**garage** 199:19 200:3  
**garbage** 317:20  
**gas** 371:6,10,11,14  
**gate** 145:22 178:20  
 200:7  
**gateway** 177:20 180:3  
 180:13  
**gathering** 391:3 393:1  
 394:11  
**gator** 307:15 308:5  
**gazillion** 402:11  
**GDP** 282:2  
**general** 25:16 38:5 56:4  
 56:20 67:9 68:19 71:4  
 112:12 114:1 116:8  
 131:13 156:13 249:15

259:7  
**generalized** 159:1  
**generally** 95:22 388:17  
**generate** 136:9  
**generated** 183:21  
**generates** 113:3  
**generation** 270:16  
 277:9  
**generators** 326:21  
**generic** 354:18  
**genomics** 269:20  
**gentleman** 11:20 25:2  
**geographically** 290:6  
**Georgia** 1:11  
**geostationary** 276:12  
**getting** 16:4 21:19 57:5  
 64:9 65:1,20,21,22  
 66:1 67:2 73:20 75:11  
 81:21 82:16 83:19  
 92:6,16,17 98:2  
 102:16 109:9 111:11  
 112:3 116:1 127:1  
 146:4 158:5 159:6  
 171:16 191:11 194:3  
 194:4 195:19,21  
 201:8 203:4 213:22  
 216:15 217:1 218:11  
 226:18 228:16,17  
 254:13 268:1 272:14  
 279:9 280:4 289:7  
 307:3 308:12 327:21  
 339:7 354:3 361:10  
 361:17,20 366:18  
 374:7 381:7 386:10  
 389:17  
**giant** 325:6 357:19  
**gigs** 268:5  
**gill** 2:4 10:5,6 25:18,18  
 52:10 56:3,8 57:6  
 58:1 59:3 65:22  
 112:18 161:8,12  
 163:20 223:19 231:15  
 240:11 243:5 245:20  
 353:17 354:17 388:14  
 389:6 390:11,19,21  
 392:5  
**GIS** 104:6  
**gist** 46:17  
**give** 17:21 35:19,21  
 44:21,22 62:1,12 65:6  
 68:2 93:18,18 147:6  
 150:2,5 183:7 290:16  
 303:9 331:12 339:2  
 348:10 370:7 379:18  
**given** 15:7 17:19 28:12  
 56:19 99:3 152:6  
 156:2 159:10,18  
 162:5 163:7 165:9

238:19 243:10 244:12  
 321:17 350:5 375:22  
**gives** 49:9  
**giving** 289:16  
**glacially** 355:16  
**glad** 9:13 254:12 300:8  
**global** 55:2 64:9 94:18  
 94:19 97:6 272:2  
 274:11 275:10,13  
 312:13 316:8  
**Gloucester** 320:11  
**goal** 18:3,8,12 154:8  
 158:14 159:8,10  
 160:21 161:13,18  
 162:3,10,11 164:9  
 168:11,13 242:5  
 256:3 260:20 274:10  
 280:4 346:5,22 356:7  
 381:18 398:11  
**goalpost** 229:18 231:3  
**goals** 17:17 18:1 27:16  
 36:7,10 125:8,11  
 153:13,16 154:13  
 155:18 156:7,16,19  
 157:4,11 159:16,18  
 160:6 163:19 168:7  
 168:10 169:1,8,13,19  
 170:15 173:9,10  
 175:18 181:15 183:5  
 204:7 234:5,8 235:1  
 235:12 237:6,8,14,19  
 238:17 239:2,8,13,15  
 239:15,17 242:14  
 341:11  
**God** 372:5  
**GOES-16** 276:12  
**gold** 85:16  
**goods** 281:22  
**Google** 37:3 40:1,17  
 54:13 381:9  
**GoToMeeting** 58:2  
 59:10,16  
**gotten** 196:5 278:18  
 283:7 352:20  
**government** 37:21 38:5  
 39:17 89:4 114:12  
 115:7 131:21 173:1  
 189:3 211:20 213:21  
 288:8,20 323:4  
 396:14  
**governments** 192:15  
**governors** 132:21  
 133:7  
**governors'** 132:20  
**grab** 39:12 98:10  
**gracious** 109:1  
**gradual** 340:22 349:21  
**gradually** 209:17

**graduate** 39:16 296:11  
**graduated** 304:21  
 313:12  
**graduation** 267:12  
**grafted** 187:7  
**grain** 180:2  
**grains** 179:19  
**grand** 17:8 223:1 403:4  
**grant** 109:7,8 110:3,5  
 110:17,20,21  
**granted** 170:13 189:1  
 285:4 294:12 356:13  
**grants** 111:5 125:1,13  
 125:17,21 139:17  
**grapes** 190:2 218:12  
**graph** 168:9 314:20  
**graphic** 158:20 159:1,1  
 162:3,10 168:7  
 236:15 378:15  
**grapple** 136:2  
**grass** 160:19 320:1  
**grateful** 100:16  
**gray** 127:1  
**greater** 43:4 57:13  
 59:19,20,21 97:16  
 172:13  
**greatly** 343:17  
**green** 75:13 77:12  
 160:19 168:8,13  
 170:7 187:14 237:12  
**grew** 5:13 14:13,14  
 108:14,16 370:18  
**grief** 186:18  
**grocery** 87:20  
**ground** 126:11 127:18  
 197:10,11 199:22  
 224:19 369:21  
**groundfish** 1:20 10:19  
 30:3 78:9 359:2,5  
**groundwater** 197:12  
 217:4  
**groundwork** 123:16  
**group** 2:7 4:15 28:13,16  
 29:2,7 32:22 48:6  
 64:17 73:7 78:9 82:14  
 111:22 113:21 114:20  
 120:4,13 124:13  
 136:7,12,20 142:10  
 142:12 146:5 149:11  
 154:16 155:9 156:6  
 176:12 185:21 193:4  
 195:22 229:1 231:21  
 243:16 245:1 311:1  
 332:12 333:17 336:1  
 336:9,21 337:15  
 340:14 341:17 342:22  
 343:7 348:2 352:7  
 355:3 356:3 380:6

382:5  
**grouper** 119:17  
**groups** 4:14 46:22 47:3  
 47:15 64:22 70:8 73:3  
 93:4 97:21 117:9  
 129:14 144:20 145:4  
 155:3 182:19 197:20  
 261:21 325:17 333:11  
 335:20  
**grow** 71:13 81:10 111:7  
 111:9 165:12 187:5  
 187:10 270:8 287:15  
 309:3  
**Growers** 2:9 6:8  
**growing** 267:5  
**grown** 190:1  
**grows** 394:13  
**growth** 96:11 283:21  
 285:13 322:2  
**guarantee** 230:12  
**guarantees** 142:3  
**Guard** 309:19  
**guess** 5:21 11:3 17:22  
 27:8,15 30:13 31:14  
 34:15 50:4,17 52:10  
 59:11 66:22 77:7 90:3  
 170:10 211:17 228:11  
 234:3 240:6 243:13  
 245:13 246:3,16  
 257:12 295:11 314:22  
 319:12,17 333:5  
 335:14 340:2 345:12  
 348:4 396:7  
**guessing** 245:11  
**guest** 58:14  
**guidance** 17:13 69:5  
 98:16,18  
**guide** 69:6  
**guidelines** 36:5  
**guiding** 237:5 239:22  
**gulf** 2:2 6:4 9:17 10:9  
 10:15,16 49:20 59:4,9  
 70:22 90:10,10 105:1  
 105:16,20 107:1  
 113:5 119:9 143:7  
 217:19 226:4,5  
 279:13 290:20 291:3  
 295:16 299:21,22  
 351:18 370:8 379:2  
 393:14  
**GulfFIN** 398:1  
**guns** 252:15

---

**H**

---

**habitat** 44:15 151:10  
 153:22 158:5 162:20  
 162:22 163:1,4,13,13  
 163:18 168:19,20,20

169:11 174:9,11  
 189:14,19 202:18  
 203:9 204:3,3 211:9  
 215:19 216:4 217:1,5  
 238:15 347:20  
**haddock** 74:7  
**half** 14:13 15:2 35:6  
 124:22 151:15 152:17  
 153:5,9 180:6,7 190:6  
 194:12 208:5 210:18  
 231:7,8 238:19  
 287:16 317:1  
**halfway** 234:1  
**halibut** 50:13  
**HALL** 2:1  
**Hamilton** 2:5 6:13,14  
 33:1 170:2 214:10  
 245:16 249:17 250:5  
 254:18 257:20 374:13  
 379:22  
**hammered** 194:3  
**hand** 204:17 265:6  
 269:22 270:20  
**handicaps** 54:2  
**handle** 217:20 355:17  
**handled** 61:11  
**handling** 366:22  
**handout** 237:1  
**handy** 54:15  
**Hanford** 188:16  
**hang** 211:13  
**happen** 119:6 121:4,8  
 132:6 136:13 181:18  
 209:19 230:15 250:7  
 265:12,16 302:13  
 314:15 325:16 351:2  
 363:11 364:9,19  
 382:17 383:21  
**happened** 70:16 86:4  
 116:21,22 128:5  
 133:9 134:22 149:4  
 290:17 351:17 369:16  
 369:20 370:20 377:16  
 377:18 379:1  
**happening** 33:7 48:5  
 71:6 128:1 141:4  
 209:20 247:4 271:11  
 272:7 274:18 281:20  
 317:5 326:12 346:20  
 351:15 375:16  
**happens** 81:9 194:15  
**happily** 285:6  
**happy** 7:21 8:21 13:19  
 14:4,5,17 24:22 25:11  
 25:13,17 38:13 70:1  
 90:11 123:22 172:9  
 185:18 316:17 386:5  
 395:2

**hard** 29:2,12 37:11 70:5  
 70:6 78:4 81:8,14  
 115:21 130:19 133:20  
 137:8 145:13 181:7  
 219:18 233:20 240:14  
 244:5 260:22 318:14  
 372:9  
**harder** 51:11 116:9  
 297:5  
**Harlon** 2:8 10:12 23:17  
 46:18 70:3 71:9,18  
 80:18 115:18 120:2  
 128:17 142:6 217:8  
 296:9 297:20 300:16  
 355:14 364:2 367:6  
 380:19 388:4 394:6  
 397:20  
**Harlon's** 2:8 31:15 57:6  
 57:7 224:2 338:3  
**harm** 134:7  
**harness** 271:12 298:14  
**harnessing** 298:20  
**harvest** 153:22 154:2,3  
 158:10 169:11 227:14  
 227:17,18 228:1,5  
**harvestable** 152:17  
 159:7,13 161:19  
 162:5,19 164:9 166:6  
 167:2 172:5,5 207:2  
 231:9 237:11  
**harvested** 68:16 78:5  
**harvesting** 21:19  
**Harvey** 14:17 350:9  
**hat** 321:13  
**hatcheries** 169:12  
 238:16  
**hatchery** 152:22 153:22  
 157:5 158:8 172:6  
**hate** 257:3 347:13  
**haul** 198:21 201:2,19  
 201:20  
**hay** 187:6  
**he'll** 263:10  
**head** 13:17 205:8 220:9  
 246:13 352:12 393:10  
**headed** 25:15 150:7  
 203:16,19,21 209:14  
**heading** 68:18  
**headquarter** 42:12  
**headquarters** 41:19  
 55:10  
**headroom** 23:1,1  
**heads** 188:18  
**health** 87:18,22 96:6  
 141:2 216:8,9 224:20  
 225:16  
**healthy** 151:19 159:7  
 159:13 161:19 162:5

162:18 164:8 166:6  
 167:2 172:5 237:11  
**hear** 14:11 23:9 28:21  
 35:14 77:14 79:8  
 116:21 134:20 154:21  
 161:9 167:5 174:20  
 176:5 233:20 259:20  
 300:9 303:4 387:12  
**heard** 14:15 19:4,9  
 97:12 98:7,22 101:5  
 112:7 113:19 135:19  
 138:18 139:21 167:19  
 222:8 234:10 235:18  
 251:13 257:1 270:1  
 270:21 307:9 310:9  
 311:14,14 318:21  
 368:20 402:6  
**hearing** 8:9 25:5 58:4  
 96:16,17 208:14  
 263:21 306:16  
**heart** 234:6 308:8  
**heat** 265:13,14  
**heavy** 204:16 279:15  
**heck** 82:8 161:20  
**Heidi** 2:20 11:11 12:11  
 53:9 54:6 58:8,10  
 60:4 82:15 147:7  
 161:2 185:8,13 233:1  
 247:16 248:9 254:18  
 259:4,18 261:10  
 262:1 336:5 337:12  
 352:2 367:3 380:9  
 390:12  
**held** 225:12 392:1  
**helix** 199:14,19 200:8  
**Hell's** 151:11  
**hello** 316:16  
**helm** 316:19  
**help** 5:18 27:18 28:3,5  
 31:7 47:22 48:4 52:15  
 55:19 59:14 69:6 71:7  
 77:18 81:2,3 86:17  
 89:19 104:10 109:21  
 116:12 121:17 125:15  
 129:19 130:12 142:15  
 144:5 205:2 213:15  
 218:22 219:3 220:20  
 224:17 226:20 255:13  
 265:12 287:10,21  
 289:20 295:1 297:6  
 300:5 307:5 327:5  
 346:7 361:6,7 362:20  
 370:13 371:22 372:19  
 374:6 382:21  
**helped** 14:20 115:6  
 248:18 267:15 293:8  
 323:21 327:5  
**helpful** 5:19 15:22

86:19 128:3 137:11  
 139:11 140:10 147:1  
 327:18 361:15 369:5  
 369:19  
**helping** 53:10 73:11  
 152:13 184:21 247:12  
 281:7 292:14 331:7  
 354:4 361:4  
**helps** 50:14 72:19  
 157:7 354:16  
**heritage** 82:9 322:14  
**Hey** 364:19  
**hi** 6:16 10:12 149:9  
 185:13  
**hierarchy** 49:21  
**high** 39:6 145:2 159:13  
 160:9 195:10 204:3  
 206:3 223:17 275:3  
 307:10 339:2 342:22  
 343:8 345:15,18  
 362:13  
**high-** 163:12  
**higher** 37:22 40:7 67:22  
 113:12 145:5 199:20  
 284:16  
**higher-order** 140:1  
**highest** 166:4 179:2  
 316:2  
**highlight** 284:5  
**highlighted** 71:21  
 112:20  
**highly** 100:11 150:21  
 160:13 163:13 188:20  
 316:12  
**hill** 16:16 73:16 205:5  
 326:12,16 327:9  
**historic** 190:8 207:1  
**historical** 96:18 124:9  
 151:9 161:14 162:4  
 162:12 164:3 166:1,5  
 166:17 167:1,9,12,22  
 168:1,3,10,12,15  
 170:6,17 251:8 252:1  
 383:16  
**historically** 161:17  
 190:12 196:10 197:7  
 207:22 211:4 215:17  
 217:2 218:6 219:7  
**history** 125:19 166:3,4  
 166:18,19 187:19,22  
 271:1  
**hit** 82:16,20,20 279:13  
 325:18  
**hits** 188:18  
**hitting** 83:8 156:14  
**hoc** 355:3  
**hold** 208:3 351:12  
**holding** 307:15 332:4

**hole** 67:16 175:9  
 199:22 320:13,14  
**holistic** 384:18  
**holistically** 94:14  
**HOLMES** 3:12  
**home** 8:22 43:21 78:2  
 278:17 397:2  
**homeland** 268:17  
**honestly** 118:20  
**honey** 187:7,8  
**hoot** 68:2  
**hope** 31:3,6 61:6 71:14  
 73:16 100:11 106:12  
 185:20 186:3 231:11  
 235:14 252:19 253:17  
 253:17 304:16 309:11  
 320:18 333:1 363:11  
**hopeful** 18:21 31:5  
**hopefully** 14:22 17:14  
 32:14,18 73:16  
 149:20 181:7 358:4  
 382:12  
**hoping** 12:3 19:7 31:11  
 55:4 68:9 116:14  
 119:5 121:22 175:20  
 183:3 184:12 223:11  
 234:5 236:9 239:4  
 263:10 269:6  
**hops** 189:22 218:5  
**horizon** 130:18 303:15  
 350:3  
**horse** 165:22 246:13  
**horses** 108:15  
**hose** 16:22  
**host** 379:10  
**hot** 33:14 211:11,15  
**hotbed** 256:22  
**Hotel** 1:11  
**hotspots** 182:4,14  
**hours** 207:5 251:14  
 302:10  
**house** 10:8 14:18 16:20  
 36:4,5 87:15 208:15  
 208:18 212:9,13  
 308:19  
**housekeeping** 13:1  
**Houston** 363:17 368:13  
**Hs** 169:9,18  
**Hubbs** 2:10 6:17  
**huge** 20:1 23:4,22 35:1  
 37:15 55:4 90:22  
 91:21 144:7 180:13  
 219:15,20 220:11,13  
 222:17 243:12 282:1  
 283:21 324:3,3,22  
**human** 270:12,14 293:2  
**Humankind** 271:1  
**humans** 85:12

**hundreds** 16:6,14,15  
 308:15  
**hurdles** 131:7,12 145:2  
 145:5  
**hurricane** 14:17,20,21  
 277:6 278:19 279:13  
 279:19 308:20 327:5  
 327:18 350:8 368:14  
**hurricanes** 308:17  
 341:1 344:3  
**hurt** 375:14  
**hush** 70:1  
**hydro** 152:21 153:2,22  
 169:14,20,22  
**hydrography** 264:22  
**hydropower** 24:15  
 151:10  
**hyphen** 345:10  
**hypothesis** 270:4

---

**I**

---

**IBM** 314:3  
**ice** 275:21 292:8,9,10  
 292:14  
**icicle** 221:10  
**iconic** 33:5 234:15  
 253:19  
**Idaho** 151:11 177:2,7  
 178:15 179:15 209:4  
 222:20 223:8 250:13  
**idea** 17:21 85:8 90:8  
 116:20 125:21 141:11  
 156:18 157:19 164:13  
 231:5 288:11,14,18  
 319:21 336:6 340:8  
 346:5 347:2 367:22  
 376:11 388:21 399:12  
**ideas** 29:2 67:2 109:11  
 112:14 259:18 297:6  
 297:9 331:3,5 339:17  
 339:19 343:9 352:11  
 354:13 360:5,5  
 367:17 383:8  
**identified** 44:5 120:20  
 125:8 247:19  
**identify** 92:14 104:8,9  
 247:11 248:8,18  
 381:14 385:5  
**identifying** 391:22  
**ignorance** 173:2  
**illegal** 145:6,8  
**imagine** 146:7 199:18  
 218:4 371:7  
**immediately** 75:7  
**impact** 104:4 136:9  
 161:21 164:14 183:1  
 228:7 296:2 350:9,14  
**impacted** 308:17

**impacts** 96:1 278:6  
 283:18 294:8 296:7  
 306:12,19 344:2  
 346:15 349:20 373:3  
 384:9  
**impatient** 118:19  
 126:22  
**imperative** 274:19  
**imperatives** 269:12  
**implement** 89:1 110:10  
 218:10 304:11 318:2  
**implementation** 30:5  
 94:22 344:16 358:13  
 358:19  
**implemented** 59:22  
 218:1 300:20 362:9  
 382:15 402:15  
**implementing** 19:21  
 20:21 192:2,9 197:12  
**implications** 110:11,16  
**implied** 385:15  
**import** 64:15  
**importance** 24:6  
 234:16,20 349:1  
 384:21  
**important** 7:8 17:10  
 22:16 29:12,20 30:15  
 47:1,7 49:18,19,20  
 51:2,8,17 60:16 61:6  
 80:21 81:12,18 82:6  
 86:20 87:13 88:2  
 129:12 130:9 137:20  
 139:10 142:14 176:15  
 180:1 198:14 209:2  
 250:9 255:21 258:14  
 294:9,15 295:13  
 306:13 307:5 318:18  
 326:22 330:6 370:5  
 385:1,10 386:14  
 389:4 391:7,22  
 393:15,21 395:13  
 401:15 402:5  
**imported** 220:5  
**importers** 117:18  
**imports** 79:6 85:21  
 86:10 88:3,4 116:8,10  
 180:14 324:9,14  
 373:6  
**impossible** 145:14  
**impressed** 27:12  
 244:18 297:2  
**impression** 347:15  
**improv** 264:3  
**improve** 18:12 36:7,8  
 37:11 225:17 226:13  
 276:8 278:14 295:1  
 391:10  
**improved** 226:15,19

355:22 391:14  
**improvement** 37:20  
 217:5 226:22 327:6  
**improvements** 276:20  
**improves** 37:10  
**improving** 174:5  
 271:17 285:20 308:12  
 381:22 382:3  
**in-** 259:6  
**in-season** 381:21 382:7  
 382:8  
**in-water** 181:8  
**incised** 216:5,13  
**include** 110:19,21  
 113:9 114:16 139:1  
 189:10 324:1 344:12  
 344:18 350:6 386:17  
 388:1 390:14  
**included** 114:10 115:17  
 123:12 181:20 340:17  
 344:4,6 384:8  
**includes** 19:22 125:17  
 125:19 255:5 389:2  
**including** 23:15 64:17  
 97:19 343:14 382:1  
 383:15,16 387:15  
**inclusion** 344:7  
**inclusive** 386:20  
**incorporate** 141:1  
**incorporating** 392:10  
**increase** 130:5 282:4  
 327:9 384:1 391:12  
**increased** 221:22 272:3  
 272:10 316:3 391:2  
**increasing** 22:11 114:5  
 118:2 281:6 287:3  
 294:13 298:12 310:16  
 391:8  
**increasingly** 211:11  
**incredible** 15:13 91:19  
 269:21  
**incredibly** 15:21 31:8  
**incrementally** 223:4  
**increments** 208:22  
**incumbent** 256:9  
 375:17  
**Indian** 327:1  
**indirect** 98:17 178:4  
**individual** 88:19 89:14  
 171:14 237:17 239:17  
 249:4 342:18 343:4  
 389:21  
**individually** 89:10  
**individuals** 160:15  
 248:16,16 256:14  
 379:12  
**Indonesia** 91:7  
**induced** 178:4

- industrial** 281:10  
**industries** 228:12 286:2  
 289:10 324:6  
**industry** 2:5 6:14 9:5,7  
 11:2 19:18 22:20  
 30:12 31:9,19,21  
 47:22 48:3 49:11  
 51:17 66:18,20 72:8  
 86:8 88:22 90:4 92:17  
 96:10,13 97:20 102:4  
 103:2 106:9 109:11  
 110:7 112:2 115:7  
 116:13 120:11,16  
 121:9,15,22 123:18  
 124:11 128:6 130:16  
 131:1 134:20 139:2  
 140:20 141:3 207:4  
 210:20 212:3 214:4  
 287:1,15 289:2  
 298:15 312:6 317:2  
 318:6,12 319:16,17  
 348:18 359:5 378:20  
 386:13,20 387:5  
 388:1,11 397:10  
**inefficiency** 30:9  
**inefficient** 21:22  
**inequality** 85:20  
**influence** 327:16  
**influences** 225:7  
**influencing** 64:12  
**inform** 28:5 293:11  
**information** 36:17,19  
 38:16,17 39:15 40:3  
 44:2,16 45:8 46:10  
 51:20 60:20 61:4 63:1  
 78:11,21 128:3 149:2  
 174:9 206:20 239:5  
 239:22 251:11 258:19  
 269:18 270:8 281:18  
 282:5 289:16 293:11  
 317:21 342:5,10  
 354:4 361:18,19  
 385:2,20 388:8  
 389:22 391:19 399:11  
 401:2,14 402:4  
**informational** 27:21  
**informed** 242:18  
 243:20 258:20 286:11  
 340:7  
**informing** 289:15  
**infrastructure** 20:5  
 196:20,21 211:19  
 213:11,18 214:7,20  
 226:10,22 273:17  
 295:2 359:4  
**ingredients** 139:12  
**inhibited** 98:11  
**initial** 42:8 53:8 208:18  
 232:15  
**initially** 236:19 402:6  
**initiate** 59:16  
**initiative** 98:6,15 101:4  
 101:12 102:1 111:21  
 112:10 121:14 122:6  
 138:1 174:13 273:8  
 320:8  
**initiatives** 62:2 112:1  
 322:15 388:13  
**inland** 177:16 178:7,15  
 178:17  
**innovation** 110:20  
 125:16 126:6 219:21  
 278:10 299:1  
**innovative** 103:6  
**input** 26:2 28:15 55:15  
 137:9 181:14 241:4  
 241:10 317:19,20  
 342:22  
**inroad** 84:10  
**inroads** 23:7  
**inside** 200:3 201:11  
**insightful** 271:1  
**inspect** 143:3  
**inspection** 65:10 92:7  
 324:1  
**inspectors** 129:1  
**inspired** 263:17  
**inspiring** 25:1  
**installed** 273:12  
**instance** 58:17 192:13  
 196:20 197:19 199:9  
 203:22 206:10 218:5  
 229:3  
**Institute** 2:11 6:17  
 10:17 66:12 73:19  
 74:5 117:19 118:16  
 267:21 315:13  
**instituted** 76:17  
**institutional** 317:18  
**institutionalized** 279:6  
**institutions** 393:17  
**instrument** 318:14  
**insurance** 142:4,4  
**intake** 199:14  
**integral** 238:2  
**integrate** 157:3 239:8  
 299:15 396:14  
**integrated** 155:22  
 196:4 239:18 288:19  
 318:8  
**integrating** 157:8  
 237:17 317:21 383:14  
 392:1  
**integration** 156:6  
 393:19 394:9 395:1  
**intellectual** 274:7  
**intelligence** 310:8  
 313:1  
**intemperate** 127:4  
**intend** 234:22  
**intending** 121:7  
**intense** 225:3  
**intensity** 294:14 374:22  
 376:1  
**intensive** 210:10  
**intent** 51:19  
**interactions** 33:8,15  
**interest** 28:21 55:19  
 58:7,12 59:1,1 81:21  
 91:19 97:12 100:22  
 102:20 155:4 157:11  
 170:12 171:19 191:11  
 205:19 212:22 234:9  
 242:6 248:17 318:10  
**interested** 12:21 46:2,6  
 46:15 78:12 90:12  
 97:14 107:8 116:20  
 120:21 125:7 146:14  
 146:22 149:4 260:8  
 280:14 292:18 316:4  
 335:10  
**interesting** 29:1 83:11  
 164:19 201:4 210:1  
 224:1 249:18 298:8  
 304:18 353:9 400:9  
**interests** 84:21 155:1,2  
 158:2 171:1 236:10  
 238:1  
**interface** 259:5 316:18  
**interim** 359:22  
**interior** 249:6  
**internal** 16:6 68:17  
 136:3,4  
**internally** 26:14 322:16  
**international** 64:13  
 65:9 85:19 315:18,21  
 323:18  
**internecine** 122:3  
**internet** 12:3,5 371:6  
**intersecting** 196:9  
**interstate** 144:12  
 207:16  
**intervals** 242:19 374:22  
**intervenes** 265:18  
**interview** 155:15  
**interviews** 361:15  
**intimate** 242:10  
**intimately** 16:13 123:3  
**intro** 369:4  
**introduce** 5:10 83:17  
 94:4 262:20  
**introducing** 13:4  
**introduction** 52:12  
 100:6,13 264:12,14  
 266:20 292:21 341:13  
 376:19  
**introductions** 4:2 5:9  
**introductory** 94:7  
**inverted** 292:10  
**invest** 125:7  
**invested** 132:3  
**investment** 98:12 139:4  
 139:9,14,17 144:19  
 215:5  
**investments** 125:9  
 132:7 273:16  
**investor's** 135:13  
**investors** 141:7  
**invite** 118:18 179:3  
 240:7  
**involve** 239:13  
**involved** 14:8 16:13  
 19:2 20:1 47:15 48:7  
 53:16 64:17 70:17,18  
 70:22 79:20 116:16  
 118:22 123:3 144:1  
 171:2 221:18,20  
 236:19 290:11 304:1  
 317:7 331:7 333:17  
 341:12 378:5 383:18  
 387:5 394:7  
**involvement** 59:20  
 154:18 261:8  
**involves** 219:4 238:14  
**IOOS** 9:5 319:6,12,13  
 319:21  
**iPad** 270:11 314:5  
**Iran** 284:19  
**Irma** 350:9  
**irrigated** 218:6  
**irrigation** 155:2 192:4  
 196:9,22 197:5 203:4  
 204:22 212:20 213:3  
 213:5,8 218:10,15,16  
 218:20 219:4 224:5  
 226:10 227:2,3  
**irrigators** 192:15  
**Irwin** 11:8,8  
**island** 125:20 290:20  
 368:2 373:5  
**Islands** 343:16 344:1,5  
 350:11 351:1 369:18  
**isolated** 372:16  
**issue** 30:3 33:7 34:1  
 77:3 88:9 91:1 92:2,5  
 92:18 94:13 102:15  
 107:11 123:2 135:8  
 135:12,16 150:14  
 153:8 160:8 175:10  
 181:21 216:8 224:20  
 241:18,21 246:14  
 247:3 250:11 260:16

338:7 354:22 362:19  
394:8,12  
**issued** 106:20 313:22  
**issues** 14:21 16:7,9,10  
16:15 17:6,9 20:13  
24:15,16,16 26:16  
28:15 31:2 32:9,13  
84:20 87:22 98:11  
101:13 103:5 104:2  
105:3 108:1 110:1  
113:3 114:2 124:10  
141:3,19 209:6  
219:15 247:22 290:12  
367:10 389:14  
**issuing** 123:7  
**it'd** 116:6  
**it'll** 130:4 202:11 310:11  
326:10  
**item** 113:17 181:20  
**items** 185:3  
**iteration** 63:6  
**iterative** 41:17 237:14  
**IUSE** 401:6  
**IUU** 86:2 266:6

**J**

**Jacobs** 277:13  
**James** 111:13  
**January** 8:5 42:7 64:16  
156:9  
**Jen** 62:5,13 82:14  
**JENNIE** 3:13  
**Jennifer** 2:13 7:15  
35:13 53:13 147:6  
161:7,12 167:8 185:8  
240:22 266:21  
**Jersey** 5:13 290:21  
368:13  
**job** 51:11 52:14 65:7  
107:19 116:1,9  
132:12 144:4 261:2  
263:14 264:19 268:3  
283:21 291:16 299:18  
309:16,17,20 314:15  
314:16 317:17 328:7  
365:6 366:15,22  
**jobs** 46:21 51:5 177:22  
178:2 287:16 313:10  
314:10 324:20 357:11  
357:17 358:4,4  
359:21 378:14 381:7  
395:1  
**John** 246:17,19  
**join** 24:21 62:8 249:9  
**joined** 13:15 53:4  
147:21  
**joint** 81:13 276:4  
292:16

**Joseph-Grand** 151:12  
**journey** 76:8 267:17  
**Juarez** 109:16  
**Julie** 1:19 10:18 28:8  
30:1,21 60:16 93:6,15  
98:22 142:10 184:9  
227:5 246:11 248:8  
290:9 333:21 334:4,5  
335:12 337:1 345:11  
348:5 376:16 377:15  
**Julie's** 306:3 349:10  
**jump** 102:21 108:4  
161:4 301:7 346:12  
**jumped** 13:13 257:21  
**jumping** 91:9 152:2  
155:6 158:19 338:19  
**jumping-off** 353:16  
**June** 73:16  
**justice** 138:12  
**juveniles** 203:19

**K**

**Kachess** 213:6  
**KATE** 3:16  
**Katherine** 2:17 4:11  
148:5 150:3 233:14  
233:16 245:4 249:8  
261:4  
**Katrina** 279:13 308:20  
**keels** 292:10  
**keen** 283:18  
**keep** 12:1 50:5 54:13,15  
61:1 70:17 103:6  
162:18 179:5 197:2  
202:13 216:17,18  
250:10 272:12 280:3  
280:4 286:1 293:6  
317:15 319:3  
**keeping** 234:4 236:14  
259:5  
**keeps** 49:21  
**kept** 250:11,12 341:18  
341:21  
**key** 28:15 44:18 63:1  
101:8 113:22 114:21  
139:12,18 144:3  
361:18 373:15 397:7  
**kick** 14:1  
**kicked** 63:22  
**kicking** 73:7 147:18  
**kidding** 77:21 381:1  
**kids** 264:15 308:6  
**kids'** 108:15  
**killed** 329:19  
**killing** 204:18  
**kinds** 82:19 110:14  
130:20 138:21 139:1  
139:4 140:16 202:1

323:2 388:21  
**king** 222:14  
**kitchen** 372:3,4  
**Kittitas** 3:10 186:12,13  
186:14 187:2 207:16  
207:17  
**knew** 189:11 191:6  
**knowing** 27:15 40:2  
51:7 290:10 403:10  
**knowledge** 143:22  
296:18 299:17 318:12  
350:13 392:16,17  
**known** 14:5 84:16  
180:2 182:3,13  
**knows** 33:3,4 61:21  
145:2  
**Kodiak** 10:19 290:20  
377:15  
**Korea** 284:19  
**Kristin** 3:14 4:10  
147:20 149:19 161:5  
174:19 185:14,17  
192:12 205:21 219:10  
234:10 240:8 259:14  
**kudos** 133:18  
**Kurzweil** 270:1 296:14  
297:15  
**Kurzweil's** 299:17

**L**

**LA** 2:8  
**lab** 92:7 111:14  
**label** 67:21 129:7 232:9  
**labeling** 68:4 90:21  
**labs** 325:13  
**lack** 197:1 198:1 201:13  
208:9 318:8 371:12  
**lacking** 47:4 222:5  
348:6 350:22  
**lad** 267:2  
**lagging** 358:20  
**laid** 343:3,4  
**lake** 200:6  
**land** 110:3 151:1,1  
154:1 174:15 220:4  
273:19  
**land-based** 96:8 140:20  
**landed** 89:7  
**landing** 2:4 52:8  
**landings** 50:13,19,20  
51:1,16 52:8 398:19  
**landowners** 203:3  
**landscape** 63:16  
150:17,19 151:5  
162:6 163:5 169:10  
173:15,17  
**lanes** 79:4  
**language** 370:6 383:12

398:6 399:18  
**lap** 29:14  
**large** 38:7 40:12,13  
78:4 152:14 172:6  
243:18 282:3 288:19  
355:17  
**largely** 26:11 94:19  
110:6 151:5 355:5  
**larger** 76:2 118:6  
120:18 156:5 215:9  
296:6  
**largest** 227:21 286:18  
**lastly** 154:14 287:12  
288:1  
**latched** 178:12  
**late** 5:3 8:10 11:15  
105:12 202:15 215:20  
355:7 356:22  
**lately** 43:12  
**latest** 45:4 111:2 118:5  
**Laughter** 123:21  
133:17 217:15 244:15  
248:5 249:11 250:4  
254:16 255:15 256:20  
257:16,18 258:8  
265:21 266:4,9,18  
295:10 297:17 302:17  
313:20 315:14 325:14  
326:1 330:13,15,18  
332:3,10 347:11  
**launch** 276:13  
**launched** 63:5 73:18  
276:3,11  
**laundry** 357:20  
**Laurel** 2:16 4:6 60:11  
61:18,21 62:4 70:6  
76:11 78:2 92:22  
93:11 94:12 116:14  
**law** 270:2 278:9,12  
**laws** 90:2 107:3  
**LAWSON** 247:6 248:4,6  
259:3 262:6,13 264:4  
264:9 335:18 336:5  
336:11 337:10 342:16  
**lawsuit** 105:20 129:13  
129:16,17  
**lawsuits** 106:3  
**lay** 98:4 99:19  
**layers** 39:8 394:13  
**lays** 17:16 101:2  
**lead** 100:16 143:18  
277:18 337:1  
**leader** 25:3 64:9  
**leaders** 287:1 317:8,16  
**leadership** 12:19 13:17  
13:22 68:22 98:7  
99:18 127:5,21,21  
131:2,15 133:19

134:1 174:22 263:15  
 274:11 275:8,10,16  
 277:3 322:18 328:9  
**leading** 33:15 91:22  
 114:11 118:10 219:21  
 384:8 388:11,12  
**leads** 83:15  
**league** 378:20  
**learn** 16:2 19:22 24:13  
 48:21 68:7  
**learned** 5:17 106:7  
 130:22 290:21  
**learning** 15:20 16:11,11  
 16:17 17:10 24:9,19  
 24:20 52:14 90:13  
 111:7 183:12 269:19  
 302:15 331:21  
**lease** 106:20 135:9,12  
**leave** 39:13 79:9 257:15  
**leaves** 37:19 207:17  
**leaving** 12:14 40:20  
 247:10  
**led** 134:22 165:10 388:7  
**left** 101:19 159:2  
 160:15 236:18 247:9  
 263:17 267:2 269:22  
 308:21 352:4 359:4  
 367:13,14 379:8  
**Legal** 1:18 7:2 301:15  
**Legend** 371:4  
**legislation** 33:13  
 102:14 105:15 106:5  
 106:8 122:4 191:20  
 208:18  
**legislative** 141:22  
**legislature** 212:7 215:4  
**legitimate** 389:20  
**Lei** 1:12,14 5:12  
**leisure** 339:6  
**lend** 21:7  
**length** 391:4  
**lengthy** 17:15  
**lens** 52:5  
**leopard** 302:8  
**lessons** 106:7  
**let's** 70:16 93:18 226:4  
 273:5 294:21 333:10  
 339:10 344:13 352:9  
 361:14 380:15  
**letter** 69:16 99:8 142:11  
 142:15 146:15 334:17  
 337:4 338:7  
**letters** 69:12  
**letting** 187:1  
**level** 39:6,7,9,10 41:20  
 46:22 48:12,17 58:22  
 61:12 68:1 71:1  
 127:11 134:17 135:7

136:22 141:2 156:13  
 159:14 160:9,16  
 162:5,19 172:3 192:9  
 196:5 232:1 239:9,18  
 241:21 244:18 275:3  
 291:10 297:6 307:10  
 339:2 342:22 343:8  
 345:15,18 358:18  
 396:15,16  
**levels** 60:21 159:7  
 160:4 164:9 195:12  
 198:8 329:20 394:10  
**leverage** 82:3 289:4  
**leveraging** 111:1  
 126:17 140:11  
**Lewiston** 177:7 178:15  
 179:15  
**liability** 173:12 174:3  
 174:12  
**liaison** 247:11,21 255:8  
 255:13 256:1,10  
**library** 92:10  
**license** 65:1 73:12  
 101:15 114:7  
**life** 14:14 15:3 44:12  
 195:18 279:16,20  
 280:6,10 325:13  
 364:4 370:10 373:14  
 384:15  
**lifeblood** 151:22  
**lifetimes** 251:15  
**lift** 179:2  
**light** 52:12 86:1 96:3  
 324:11  
**lightened** 266:17  
**lights** 372:4  
**likelihood** 162:15  
**likes** 88:8  
**Likewise** 50:11 401:1  
**limit** 21:8 74:17  
**limited** 23:1  
**limiting** 159:12  
**limits** 20:16,21  
**Lindsay** 302:7 323:20  
**line** 16:19 24:3 26:10  
 28:17 141:7 293:6  
 331:20 344:15,22  
 393:22  
**lines** 16:18 58:20 220:5  
**lining** 144:18  
**linking** 41:20 45:3,15  
 46:3 179:13  
**lions** 33:11  
**list** 17:17 49:6 113:17  
 120:20 124:17 169:15  
 169:16,17 258:19  
 261:16,20 357:20  
 378:12 379:2

**listed** 145:10 151:15  
 152:14 153:5,10  
 157:5,5 158:3,4  
 159:17,17,21 168:10  
 183:5 195:17 230:5  
 235:2 261:18 361:13  
 385:14  
**listen** 25:10 57:9,14,18  
 57:20 140:3  
**listening** 58:16 249:19  
 250:1  
**listing** 173:18  
**literally** 50:17 79:17  
 304:3  
**litigation** 113:15 152:6  
 175:12  
**live** 15:17 56:21 57:17  
 59:8 207:17 290:3,19  
 309:7,16 373:6  
**lived** 297:19,21 308:4  
 348:20  
**livelihood** 47:19  
**livelihoods** 10:3  
**lives** 14:18 41:8 280:2  
 294:11 295:13 308:13  
 327:4  
**living** 15:3 309:10  
 373:18,19,20,21  
 375:1,4  
**Liz** 2:5 6:13 170:1  
 172:11 176:7 188:2  
 206:11 214:9 215:2  
 240:8 245:15 246:18  
 246:20 247:10 248:12  
 248:21 249:16 254:12  
 255:5 257:19 258:6  
 258:10 374:12 377:8  
 379:20  
**LLC** 1:19 2:8  
**load** 92:19 218:19  
**loan** 142:3  
**lobbying** 117:14  
**local** 61:11 71:19 72:15  
 81:22 88:9,9 91:1,3  
 119:12,14 236:3  
 276:21 281:6,7  
 392:16,16  
**localized** 236:3  
**locally** 91:5,6  
**location** 178:22  
**locations** 104:8  
**lock** 178:19,21,22  
**locks** 33:7 179:2 183:13  
 183:18 184:1  
**lofty** 311:13  
**log** 215:21  
**logged** 215:18  
**logic** 236:15

**logical** 38:22  
**logistical** 13:1  
**logistics** 147:8,10  
**logs** 180:16 216:1  
**long** 14:5,10 25:3 30:20  
 35:21 37:7 64:18 65:3  
 82:8 125:20 127:17  
 130:18 141:7 155:10  
 175:19 177:14 252:6  
 252:7 260:14 262:14  
 284:15 290:12 301:5  
 312:17 357:13 362:12  
 366:10 374:21 375:22  
 380:3 403:11  
**long-term** 21:3 106:20  
 175:18 181:15 306:10  
 306:19 384:16  
**longer** 42:21 103:1  
 109:14 197:8 216:18  
 229:21 246:19 346:9  
**longest** 199:16  
**longstanding** 190:19  
**look** 14:7 19:17,19 20:7  
 21:10 22:9,18 24:5,9  
 25:4 31:17 32:6 38:3  
 40:11 55:6 57:3 59:18  
 60:5,17 61:20 67:13  
 69:17 81:12 82:22  
 86:7,8 91:16 99:20  
 104:8 106:4,13,14  
 107:21 108:21 111:12  
 117:8,10 123:19  
 128:10 130:18 132:1  
 143:4 156:14,20  
 158:1,22,22 168:17  
 181:10 191:21 209:15  
 230:16 235:7 239:8  
 239:11 270:19 272:15  
 277:8 299:8 301:22  
 304:7 312:5 328:4  
 330:7,8,22 339:5  
 340:21 359:13 362:7  
 364:19 366:7,14  
 369:2 376:7,18  
 382:21 387:3 392:14  
 396:1,4 402:22 403:6  
**looked** 18:1 219:5,6  
 287:6 335:15 354:9  
 354:10 355:2 362:10  
 362:11,19 383:6,8,14  
 383:22 384:3  
**looking** 22:11,12 25:8  
 34:10 36:16 39:15,22  
 40:1 43:18 48:13 52:5  
 54:10 57:12,16 58:1  
 60:3 62:7,9 66:21  
 67:3,22 68:18,20  
 69:22 76:9 80:7 84:7

89:2,3 94:14 95:21  
 98:19 103:21 105:13  
 106:1 109:22 110:1  
 123:1 132:5 144:20  
 163:5 168:21 194:5  
 206:6,21 207:1  
 238:17 253:11 280:14  
 287:21 288:7,7  
 289:19 299:12 300:1  
 315:1 320:7 321:4  
 328:20 330:11 341:4  
 342:21 347:17 358:21  
 358:22 360:15 365:14  
 378:1 380:1 383:4  
 396:18  
**looks** 52:17 67:6  
 142:20 143:9 384:19  
 388:9  
**loop** 312:16  
**Lorenzo** 109:16  
**lose** 51:20 234:13  
**losing** 12:18 40:6  
 246:22  
**loss** 279:16,20 280:5,10  
 314:16  
**lost** 49:14 53:5,7 80:15  
 171:3 308:21 359:1  
 359:21,21 371:16  
 372:5 378:13  
**lots** 175:11 176:1 182:5  
 331:2  
**Louisiana** 10:14 297:20  
 308:4  
**love** 55:19 93:16 234:19  
 259:13 266:12 290:2  
 301:14 352:19  
**loved** 267:6 268:8  
**Lovett** 2:20 11:11,11  
 54:8 58:12 147:12  
 185:13 186:8 233:2  
 248:11 254:17,20  
 255:1,4,7,16 256:9,12  
 261:11 334:6 379:11  
**low** 178:1 194:9 329:20  
**lower** 101:19 131:12  
 150:20 162:5 178:4  
 179:10 211:11 235:22  
 303:22  
**lowest** 199:16  
**luck** 279:1 310:2  
**lucrative** 146:3  
**Lukens** 2:13 7:14,15  
 11:18 34:19 52:20  
 53:13 56:11 57:10  
 58:5 60:2 61:17 70:3  
 71:16 77:22 147:7  
 148:16 161:6 162:8  
 167:7 168:2 169:3

175:2 207:7,11  
 219:10 240:21 241:1  
 243:17  
**lumber** 180:16  
**lunch** 4:9 12:8,9 147:10  
 147:13,15 148:12  
 262:16  
**LYONS** 3:13

---

**M**


---

**M** 1:20  
**ma'am** 243:5 392:20  
**machine** 200:18 269:19  
 302:15  
**Mackerel** 377:19  
**Madam** 56:3 112:18  
 122:8 128:19 223:19  
 227:6 231:15 240:11  
 244:10 245:20 254:11  
 353:17 401:16  
**Madame** 343:13  
**MAFAC** 5:2,18 6:19  
 7:18 10:6,17 11:12  
 12:17 13:20 14:9  
 23:12 25:8 27:16  
 28:10,11 30:22 46:11  
 52:16 53:1,12 56:15  
 59:14,15 63:2,3 64:6  
 99:4,8 112:16 126:4  
 137:22 138:9 146:15  
 149:13,16 170:3  
 175:1,2,3 185:6 186:2  
 240:15 241:3,14  
 242:8,9,15,16 243:1,2  
 243:9 247:2,10,12,14  
 247:18,21 248:14,15  
 249:1,19,20 250:2  
 254:5 255:11 256:6  
 256:10 258:13,21  
 259:2,6,7 261:13  
 296:19 324:21 342:19  
 348:2 350:7 354:2,13  
 364:17  
**MAFAC's** 231:11  
**magnitude** 150:14  
 303:11  
**Magnolia** 1:11 4:15,18  
**Magnuson** 15:12 22:8  
 25:21 26:9,17,21  
 105:18,19,22 235:8  
**Magnuson-Stevens**  
 20:10 152:11  
**mailing** 258:18  
**main** 198:6 291:21  
**Maine** 1:17 5:14 9:13  
 287:7 321:19 378:6  
 401:9  
**maintain** 19:16 87:13

174:11,12 184:3  
 340:11  
**maintaining** 54:22  
**maintenance** 184:8  
**major** 26:16 35:18 79:9  
 97:17 113:7,11 117:8  
 132:7 177:19 182:2  
 192:7 196:20 197:20  
 198:4 205:15 217:17  
 291:1 346:22 347:4  
 363:10 378:19  
**majority** 246:1  
**majority/minority** 251:1  
**make-or-break** 135:12  
**makers** 278:5  
**makeup** 246:9 248:19  
**making** 33:21 46:22  
 71:9 72:11,18 84:22  
 106:17 114:8 174:14  
 201:20 204:15,18  
 218:10 223:21 260:20  
 260:20 301:12 317:11  
 334:7 341:17 346:21  
 356:1 391:16 393:2  
 395:12  
**Mammal** 20:2 86:2,5  
**mammals** 33:8 302:5  
**manage** 126:7 154:7  
 220:17 315:1 398:17  
**managed** 63:4 84:17  
 97:1 311:8  
**management** 4:16 8:8  
 10:15 13:11 15:4  
 21:15 23:17 24:8 29:5  
 42:4 45:10 64:10 75:7  
 105:16,17 107:6,14  
 108:22 126:9 128:11  
 143:15 152:11 154:1  
 156:15,22 158:8  
 174:15,15 219:15,20  
 227:21 272:21,22  
 274:13 291:7 293:15  
 314:10 318:1 345:7,9  
 346:2 362:2,8 376:9  
 376:12 381:16,21  
 382:7,8 384:3,20  
 385:3,18 391:15  
 393:11 401:4  
**management-related**  
 152:20  
**manager** 3:10 186:11  
 187:2 385:5  
**managers** 31:10 86:22  
 279:4,8 385:1,19  
 386:19 387:21 394:21  
 395:7 400:20  
**managing** 36:9 61:10  
 384:16

**Manastash** 202:20  
 203:8  
**maneuver** 292:11  
**manipulate** 39:16  
**manned** 312:7  
**mantle** 98:10  
**mantra** 84:17 85:17  
 331:8 362:1  
**manufacture** 310:12  
**manufacturing** 310:11  
 312:21 314:9  
**many-acre** 220:6  
**map** 188:5 190:17  
 305:1  
**mapping** 208:20 272:20  
**maps** 176:18  
**March** 92:7 276:13  
 292:3  
**Maria** 277:6 350:9  
**marine** 1:4,15 6:1,4,11  
 7:11 8:22 10:4 11:16  
 20:2 23:3 33:8 38:16  
 44:12 86:2,5 101:9,14  
 102:20 103:10 111:7  
 112:10,21 114:8  
 127:18 141:15 144:5  
 180:20 288:13 302:4  
 375:20 380:2 384:10  
**marine-related** 289:9  
**maritime** 271:22  
**Mark** 207:19  
**marker** 351:4  
**market** 78:6 86:7 88:20  
 89:9 114:20 129:20  
 129:21 137:6,14  
**marketed** 69:17 183:21  
**marketing** 50:14 66:11  
 68:15 73:6,19 80:15  
 84:6 117:13 118:9  
**marketplace** 75:15  
 119:15 122:22 130:2  
 137:5 323:18  
**markets** 79:5 97:2,4  
 116:11  
**Maryland** 1:11 292:17  
**Massachusetts** 125:18  
**match** 126:10 356:12  
**matched** 125:1  
**material** 54:19 57:3  
**materialize** 208:7  
**materials** 54:13 83:18  
 237:1  
**matter** 93:20 131:6  
 148:18 244:7 262:10  
 309:4 330:5 333:7  
 381:7 403:12  
**Mattis** 187:22  
**maximize** 18:6 21:16

- maximizing** 280:16  
282:13
- maximum** 218:18
- mean** 28:20 33:4 50:15  
58:8 60:18 62:15 86:9  
110:14 114:14 115:11  
134:8 143:3 210:12  
222:10,17 272:9  
281:19 301:22 305:15  
308:20 312:13,15  
326:10 334:5 346:4  
348:9,15 349:19  
363:19 364:12 367:14  
370:1 377:16,21  
389:19 398:20
- meaning** 142:22
- meaningful** 253:22
- means** 64:10 88:13  
155:22 167:2 231:20  
353:13 354:3 384:16  
387:2
- meant** 30:11
- measurable** 253:7
- measure** 157:12,20  
235:5 236:5 239:15  
253:2 296:21
- measurements** 304:5
- measures** 157:15  
365:20
- measuring** 37:15 303:8
- meat** 379:5
- mechanism** 29:5  
252:17
- mechanisms** 22:1 24:7  
173:21 174:10 252:20
- media** 115:11
- medicine** 141:1
- meet** 14:6 73:10,10  
259:16 332:14 336:17  
336:18 337:5 358:8  
385:21 387:19 397:11
- meeting** 1:6 5:3 7:9  
10:21 11:10 12:14,15  
12:22 27:19 28:2,8  
56:9,11,17,22 57:9,10  
57:15 58:13 60:1,5  
75:9 80:22 94:17  
116:19 118:4 119:2,5  
119:8 120:3,22  
121:12 134:22 143:13  
146:16,19 156:9  
193:5 204:7 239:6,7  
241:18,19 247:4,7  
248:4,8 250:13 259:7  
259:10 260:3 261:13  
328:12 333:19 337:7  
396:7
- meetings** 16:15,16 32:8  
53:2 56:15,21 57:17  
59:6 63:2 117:3 119:3  
172:11 232:3 243:18  
247:12,17,20 255:10  
258:15,18 297:4  
331:1
- meets** 103:19
- mega** 215:10 269:15
- mega-scale** 131:8
- Meira** 3:14 4:10 147:20  
149:20 174:20 175:3  
183:10,16 184:19  
186:7,19 219:13  
229:16
- melt** 195:11
- members** 1:13 7:22 8:4  
12:13,15 54:16 56:18  
62:20 80:8 147:22  
149:17 156:10 176:9  
192:13 238:9 247:1  
255:2,5,20 259:13  
261:21 322:10 335:3  
336:18,19
- membership** 12:16,20
- memberships** 82:22
- memorandum** 104:16  
143:8
- memories** 221:5
- mention** 51:14 53:17  
69:9 73:3 121:12  
154:15 247:9 368:11  
375:18
- mentioned** 24:21 29:3  
65:13 90:20 97:13  
153:3 157:21 169:9  
172:12 175:7 190:3  
202:4 205:6 211:4  
213:16 222:8 224:15  
286:13 360:14 368:17  
377:6 391:20
- mentioning** 189:15
- merging** 36:13
- mess** 297:9
- message** 54:9 85:9  
98:2 327:12 337:12
- messages** 101:5
- met** 1:10 7:16 14:6  
94:19 113:21 116:4  
147:20
- metadata** 41:13
- meteorology** 264:22
- methodology** 92:8  
391:4 393:1
- methods** 354:3
- metric** 236:5 291:5  
311:20,21
- metrics** 235:4,10
- Mexico** 10:15 11:4  
49:20 105:1,16 226:5
- mic** 34:17
- Michael** 2:21 4:8 64:20  
73:2 94:4 98:4,13  
99:19 100:13,18  
112:19 120:10,15  
126:20 132:11 133:13  
133:19 134:5 137:7  
138:18 139:20 140:6  
141:6 144:10 148:5  
233:15 249:5,9  
322:17 334:19
- Michael's** 120:2
- micro-sprinkler** 218:15
- mid-** 106:6 206:6  
232:20,22 386:8
- mid-2000s** 105:15
- mid-70s** 191:5
- mid-Atlantic** 9:4 83:21  
83:21 88:21
- mid-C** 232:22
- mid-Columbia** 151:6  
160:7 203:9,14 204:4  
206:12 232:19
- mid-January** 42:13
- middle** 39:10 163:10  
265:17 267:20 282:11
- Midwest** 180:7,9
- might've** 270:1
- mighty** 217:11
- migrate** 54:2 293:17
- migrated** 42:16 52:2
- migrating** 53:11,18  
295:17
- Mike** 2:7 11:1 21:21  
23:10 31:14 32:10  
60:16 77:22 80:6  
115:20 122:12 130:14  
132:18 170:10 171:4  
187:18 221:3 254:10  
257:21 310:3 315:16  
316:14 317:13 347:12  
352:6 358:5 364:21  
365:8 367:17 394:1  
399:2
- Mike's** 80:20 357:8  
364:3
- miles** 177:14 178:14  
203:9 273:12
- militaries** 284:20
- military** 276:10 299:7
- milk** 117:10
- million** 111:4,11,14  
124:22 177:20 202:22  
208:4,5 213:16  
215:13 222:12,12  
228:2 231:17 272:11  
281:1 287:16 311:21  
371:18,18
- millions** 79:18,18  
308:16
- mind** 81:6 98:22 121:20  
139:22 231:16 234:4  
236:14 264:17 325:11  
372:6,22
- mind-boggling** 377:16
- minded** 19:1
- minds** 123:11
- mine** 5:7
- mineral** 180:12
- minimize** 228:14 278:6  
280:5,10
- minimizing** 296:7  
306:11
- minimum** 171:20  
394:18
- minority** 245:3,6
- minute** 75:3 333:4,6  
378:17
- minutes** 11:15 302:11  
305:13,20 380:11
- mired** 131:22
- misdirected** 356:19
- Miser** 265:13,14
- misinformation** 78:8  
79:15
- mislabeling** 91:15
- misrepresentation**  
91:15
- missed** 47:20 240:9  
248:9 336:12
- misses** 349:6
- missing** 47:12 81:19  
138:17 351:11 385:15
- mission** 19:8 20:1 22:8  
22:14,15 44:4,12  
63:17
- missions** 293:4
- Mississippi** 102:13  
179:8 217:11 230:16
- mistaken** 148:14 224:8
- mitigate** 346:15 381:17
- mitigation** 152:20,22  
158:9 181:6 229:20
- mitigations** 235:9
- MMPA** 20:9 33:14
- mobile** 37:1,2,4,5
- mobile-friendly** 40:10  
40:11
- mode** 57:21 278:21
- model** 21:8 50:19 90:10  
199:14 200:12 205:12  
226:6 275:13,13,19  
275:20,22 276:19,19  
277:5,6,9 278:20  
294:22 302:19 325:21

329:5,6  
**modeling** 275:9,16  
 277:14 278:2,14  
 307:2,4  
**models** 108:14 194:6  
 209:12 275:12 292:15  
**moderately** 223:17  
**modern** 214:21  
**MOFAC** 175:1  
**molecules** 197:10  
 303:8  
**mom's** 14:17  
**moment** 15:13 48:16  
 59:11 106:15 366:20  
**moments** 133:22  
**momentum** 236:3  
**Monday** 119:17  
**money** 57:12 76:17  
 83:10 89:2 109:4  
 111:1 115:14 126:17  
 126:18 130:17,21  
 182:17 204:18 211:18  
 212:1,19 213:15,22  
 228:13,21 282:9  
 285:1 288:17 319:22  
 325:7 330:12 371:1  
 373:19  
**monger** 87:17  
**mongers** 76:6 84:11  
**monitor** 302:4  
**monitoring** 64:15  
 103:19 107:4 143:12  
 293:4 294:4 295:3  
 296:1 302:7 324:2  
 391:9 401:10  
**Monster** 266:7  
**Montana** 209:4 222:20  
**Monterey** 74:10,20 75:2  
 77:3  
**month** 195:8 370:21  
 371:8 373:7  
**months** 8:18 13:15  
 15:14 16:3 17:1 27:4  
 73:4,9 83:22 102:3  
 112:8 150:7 194:16  
 195:4,10 203:7  
**moon** 288:16  
**moonshot** 288:13,18  
 323:10 327:13  
**Moore** 2:6 9:2,10  
 209:22 210:4,7,9,12  
 211:17 316:16,21  
 319:8,12,15,20 320:5  
 320:13,16,21 321:6  
 377:6 379:3,18  
 396:22 399:22 400:3  
**Moore's** 270:2  
**moral** 254:1

**morass** 19:5 31:22  
**morassed** 49:16  
**morning** 6:13 7:1,10,14  
 8:2 9:11,15,20 10:5  
 14:3 23:10,18 33:1  
 35:14 52:16 98:22  
 100:20,21 147:20  
 149:21 175:7 262:22  
 282:18  
**Morris** 111:13  
**Mother** 265:17  
**motion** 380:16  
**motivate** 193:21  
**mountain** 187:15  
 194:22 195:1 204:3  
 209:9,10 211:13  
 216:14  
**mountains** 202:7  
 292:10  
**mounting** 303:21  
**mousetrap** 360:17  
**mouth** 167:18 177:15  
**mouthful** 278:10  
**move** 37:10 49:8 50:5  
 65:2 87:14 122:2  
 128:16 146:22 169:19  
 179:17,19,20 186:10  
 193:18 271:14 286:1  
 287:10,17 289:19  
 291:12 305:6,8  
 317:17 321:2 338:10  
 351:21 371:20 373:14  
 373:22 382:22  
**moved** 127:21  
**movement** 122:4  
 292:15  
**movie** 371:4  
**movies** 265:4  
**moving** 36:22 37:2  
 42:11 43:6 65:17  
 155:19 177:9,12  
 198:9 217:6 236:14  
 272:8 276:1 317:4  
 400:20,21  
**MRIP** 10:10  
**MSA** 64:9 65:14  
**MSA's** 64:3  
**muddy** 218:8  
**multi-beam** 305:1  
**multi-generational**  
 85:12  
**multilevel** 199:13  
**multiple** 41:10 52:9  
 78:20 191:16 209:12  
 374:20  
**municipalities** 194:19  
 207:4  
**mussel** 108:18

**mussels** 112:4  
**muster** 397:3  
**mutually** 242:5  
**Myers** 8:17,19

---

**N**


---

**NAA** 135:4 138:8,8,12  
**Naches** 221:6  
**naively** 136:1  
**name** 9:9,11 11:8 12:1  
 33:20 41:7 91:12,12  
 311:1  
**named** 33:2 277:13  
**names** 147:14  
**narrative** 63:15 69:11  
**narratives** 62:16 68:7  
**narrowed** 361:13  
**nation** 198:15 206:10  
 206:16 214:1 215:15  
 273:4 276:6,9 283:6  
 293:11  
**national** 1:3,15 6:10  
 7:11 8:22 36:14 43:14  
 43:21 70:20 73:5,5  
 83:13 92:7 94:2 98:6  
 98:14 103:22 106:4  
 111:20 117:19,21  
 118:16,16 124:21  
 127:18 135:4 141:12  
 268:12,14 272:4  
 274:18 280:20 284:10  
 285:12 288:13 289:2  
 291:10 292:15 293:10  
 347:16 366:5  
**nationally** 73:18 393:6  
**native** 206:8 227:12  
**natural** 129:6 268:18,19  
 283:6 297:22  
**nature** 30:11 234:15  
 265:17  
**NAUGHTEN** 3:16  
**Naval** 263:8 267:3,10  
 296:11 313:12  
**navigation** 155:2  
 176:12,21 177:5  
 178:3,19,21 180:1  
 183:18  
**Navy** 263:5 266:21  
 267:8 268:2,4,11,14  
 269:2 271:21 272:19  
 273:2 274:20 278:22  
 283:3 291:17,18  
 292:14 298:21,21  
 330:3  
**Navy's** 267:19 291:20  
**near** 21:2 58:3 188:16  
 289:8 294:10,20  
 332:18 346:8

**near-term** 306:10  
**nearly** 151:15 279:17  
**necessarily** 31:13  
 54:18 67:16 74:14  
 96:4 125:13 127:9  
 181:6 299:14 352:17  
 353:3 360:21 361:5  
 367:21 393:13  
**necessary** 384:2  
**neck** 134:11  
**need** 17:5,19 25:16  
 29:6 41:16 47:17  
 68:10 69:16 70:20  
 75:17 77:13 78:22  
 85:21 87:2 88:7 90:21  
 98:7 103:3,10,14  
 107:13 119:1 121:21  
 128:9 130:6 137:12  
 138:20 139:4,18  
 140:16 155:21 173:19  
 176:10 182:15,16  
 211:3,14 229:10  
 230:2 242:9 245:6,12  
 247:8,11,18 248:8  
 255:12 256:1 258:4  
 271:12 272:15 285:2  
 294:19 298:13 313:4  
 344:8 346:5 350:20  
 351:7 356:7 358:18  
 361:20 362:1,15  
 364:16 369:7 376:11  
 377:7 378:20 380:3  
 385:2,20,22 388:8  
 397:13 398:5,6  
 401:21 402:9,13,16  
**needed** 67:20 107:6  
 135:7 220:11 343:18  
 382:1  
**needn't** 30:6  
**needs** 29:12,13 48:6  
 53:11 61:13,14 71:4  
 71:21 100:13 103:19  
 130:10 184:6 226:22  
 241:11 242:10 250:6  
 284:15 291:11 293:11  
 302:13 334:8 335:12  
 345:17 351:2 376:22  
 384:21 385:4,6  
 387:19 388:19 398:21  
**negative** 384:9  
**Neil** 277:13  
**neither** 307:17  
**NEPA** 22:9  
**nerdy** 266:12  
**nesting** 172:22  
**net** 65:22 72:2  
**nets** 72:8  
**network** 83:2 276:16

401:6  
**neutral** 79:15  
**Nevada** 209:5 222:20  
**never** 15:17,19 50:2  
 69:16 81:1,6 197:17  
 222:8 228:18 230:15  
 292:5 319:8 320:19  
 363:11  
**nevertheless** 357:1  
**new** 5:13 7:22 8:4,6  
 12:15 14:8 16:12  
 18:19 25:14 31:2 39:2  
 39:18 41:6 42:3 43:20  
 43:21 45:5,6 52:3  
 53:19 54:5 57:6,8  
 62:7,20 64:14 83:21  
 86:1 88:21 92:8 97:9  
 119:20 122:17 125:6  
 145:18 149:16 184:5  
 197:16 213:20 215:5  
 217:10 223:11 226:19  
 255:20 290:21 300:13  
 300:17 304:10 311:9  
 322:8 325:5,6 328:8  
 332:16 360:16 368:13  
 376:11 377:20 378:1  
**newbie** 10:6 240:13,13  
 353:19  
**newcomer** 283:2  
**newest** 13:7 276:4  
**news** 14:15 38:18 45:4  
 46:9 194:18,18,19  
**newsletter** 62:22  
**NFWF** 125:6,15 126:5,7  
**NGO** 9:21 10:1 95:18  
**NGOs** 102:5 106:10  
 266:7 306:18 389:17  
**nice** 62:6 94:11 216:13  
 326:14 327:18 332:7  
 379:15  
**niches** 130:6  
**nimble** 362:1 365:10  
 381:16  
**nimbleness** 368:19  
**nimbly** 301:9  
**nine** 7:3 102:3 112:8  
**NMFS** 291:12 358:19  
 359:18  
**NOAA** 2:12 4:7 7:11,17  
 7:21 8:15 13:6,9,12  
 13:22 16:19 17:13  
 25:3,15 27:6 34:21  
 35:1,16 46:8 51:4  
 61:22 63:12,17 65:4  
 73:17 74:11,12  
 106:20 126:10 127:4  
 127:6 128:8,14  
 131:13,17 143:18

174:22 186:2 248:20  
 251:4 254:8 257:10  
 263:1,3,15,19 268:7  
 269:8,10 272:19  
 274:12,21 277:21  
 280:12 283:10 284:11  
 288:12,19 290:1  
 291:12 292:14,16  
 293:3,13 295:20  
 299:14 300:19 308:11  
 309:15 319:6 325:17  
 329:11 331:20 354:2  
 362:19 388:9 392:2,2  
 392:2  
**NOAA's** 309:11 325:1  
 325:16  
**nomination** 8:17  
**nominations** 63:2  
**non-ESA** 153:15 157:5  
 159:17  
**non-federal** 169:22  
 241:8  
**non-listed** 151:17 235:2  
 261:19  
**nonpartisan** 212:4  
**nonprofit** 319:10,18  
**normal** 40:13 195:2,2  
 325:5  
**normally** 175:15 182:9  
 195:12  
**north** 13:10 15:3 20:15  
 31:7,10,16 74:7 88:11  
 207:19 277:14 284:19  
 376:7 379:19 383:7  
**northeast** 43:5 145:17  
 151:13 317:8,9,10  
 318:20 340:13 394:13  
**northern** 273:22 378:5  
**northwest** 2:5 3:15 6:14  
 24:14,17 33:4,7 43:5  
 175:5,8 176:5 182:6  
 183:12 188:10 214:13  
 219:20 230:7 233:4  
 253:18  
**Norway** 383:7  
**note** 140:8 261:12  
**noted** 185:5,17 261:17  
**noticed** 46:20 47:2  
 56:13 85:20 169:10  
 184:12 369:22  
**noting** 34:4  
**notion** 88:18  
**notwithstanding** 113:1  
**novel** 109:22  
**November** 1:8 5:4  
 341:20  
**NSA** 75:10  
**nuance** 71:14

**number** 8:18 20:13 22:6  
 32:12 33:20 38:7 51:9  
 66:9,17 80:1 95:9  
 97:18 102:4 104:11  
 104:14 105:3 117:3  
 151:17 157:16 169:7  
 180:4 182:8 210:15  
 225:3 230:5 287:7  
 316:2 354:21 378:14  
**numbered** 341:16  
**numbers** 157:16 165:12  
 206:21 246:8 287:18  
**numerical** 237:10  
 277:14  
**nutshell** 357:16

## O

**Obama** 123:6  
**objection** 345:9  
**objective** 118:14 271:2  
**objectives** 80:17  
 113:11  
**observation** 28:12  
 276:1 331:15  
**observations** 275:7  
 277:11 278:3 289:6  
 294:7  
**observing** 9:4 289:2  
 316:22 400:5 401:1  
**obtaining** 172:4  
**obviously** 16:7 110:10  
 133:2 188:13 206:22  
 255:19  
**occasionally** 58:13  
**occupied** 79:6  
**occur** 214:3 218:16  
 314:12  
**occurred** 68:20 162:7  
 167:14 190:10 199:8  
 209:10 224:12 227:2  
 308:15  
**ocean** 9:3,9,22 73:17  
 152:12 177:16 199:5  
 267:6 271:19 272:7  
 272:20 273:20 275:21  
 280:15 289:2,5,16  
 316:18,22 325:13  
 327:1 363:16 368:3  
 376:10 384:9,14  
 400:5 401:1  
**ocean-going** 177:11  
**OCEANIC** 1:3  
**oceanographer** 268:4  
 291:16  
**oceanographic** 290:11  
 304:5  
**oceanography** 263:8  
 264:21 267:14

**Oceanography's**  
 267:21  
**Oceans** 2:14 4:13  
 208:15 375:20  
**October** 8:10,10 195:13  
**odd** 344:2  
**offer** 69:19 76:8 256:4  
**offering** 26:20  
**offers** 271:13  
**office** 2:13,19,20,21  
 7:16 11:9,13 34:20  
 35:15 43:2,2 54:12  
 55:9,9 61:10 94:5  
 147:16 249:7 293:5,6  
**Officer** 11:12  
**officers** 292:3  
**offices** 16:19 43:4 45:2  
 45:9 52:1 65:9 110:13  
 132:20  
**official** 2:13,20 7:18  
 174:4 258:13  
**officio** 1:17 2:2,4  
**offline** 86:15  
**offset** 360:7  
**offshore** 145:17 289:4  
**Ohio** 87:10  
**oil** 76:16  
**Okanagans** 198:19  
**Okoniewski** 2:7 11:1,1  
 29:22 32:20 50:11  
 78:1 82:5 130:15  
 170:9,10 221:4,10  
 225:20 254:11,22  
 255:3,6 256:5,11,18  
 256:21 257:17 310:4  
 310:19,22 312:3,20  
 313:3,14,17 314:22  
 315:8 347:13 358:6  
 365:9 368:15 387:11  
 394:4 399:3  
**old** 42:13,14,20 43:12  
 50:1 52:13,17 54:10  
 127:1 178:1 212:20  
 226:22 265:7,7  
 382:18  
**older** 19:18 54:19  
 251:15  
**Oliver** 2:15 4:4 7:10,11  
 13:5 14:2,3 26:3  
 27:11 28:7 29:21 31:5  
 33:17 183:11 303:3  
 331:15 332:4,7,11  
 364:11  
**Olympic** 194:22 209:9  
**OMB** 16:20 123:13  
 327:22  
**onboard** 263:12 301:2  
**once** 41:5 108:9 132:22

141:8 178:5,8 229:4  
235:14 237:16 368:17  
372:2 392:13  
**one-** 118:11  
**one-on-one** 75:18  
**one-third** 358:16  
**ones** 52:13 79:10,22  
114:12 145:22 184:5  
223:17 309:19 356:16  
365:19 369:9 402:13  
**ongoing** 26:2 41:17  
152:7 255:17  
**onion** 39:9  
**online** 59:18 92:10  
276:22  
**op-ed** 82:17 115:11  
277:1  
**open** 56:12 57:18 58:20  
100:18 112:14 121:19  
189:18 204:8 218:6  
319:3 336:18 387:2  
**opened** 200:7  
**opening** 27:13 30:1,8  
65:13 67:1 389:2  
**operate** 179:11 183:19  
**operated** 191:3  
**operates** 183:15  
**operating** 178:11 179:6  
219:17 230:6 236:20  
292:6  
**operation** 152:8 279:8  
**operations** 2:18 9:1  
16:5,6 134:8 184:7  
234:7 277:7 305:8  
**operator** 106:21  
**opinion** 55:5 315:7  
**opportune** 99:6  
**opportunities** 18:6  
20:11 21:5,17 22:5,18  
100:17 124:19 131:5  
158:10 169:11 189:16  
213:17 245:2 271:14  
280:11 281:14,15  
304:9 380:4  
**opportunity** 23:4 28:14  
79:19 85:15 87:1 93:9  
98:9 100:5,8 122:9  
130:17 132:21 133:6  
181:14 267:11 271:8  
282:10 286:21 328:2  
332:22 335:17 340:20  
341:3 351:3 359:22  
**opposed** 96:8 169:1  
246:1  
**opt** 107:8  
**optimistic** 33:2 136:1  
**optimize** 282:5,8  
285:21

**optimized** 312:18  
**optimizing** 169:12  
271:15  
**option** 56:19 106:18  
334:20  
**options** 68:19,21 239:1  
359:7  
**oranges** 396:18  
**order** 104:16 173:2  
241:10 242:13 243:20  
352:5  
**orders** 12:10 19:10  
134:8  
**Oregon** 78:14,15 151:3  
154:3 155:13 157:1  
174:1,6 177:2,17  
206:17 209:4  
**org** 46:16  
**organic** 122:14,14,17  
122:18,20 123:5,7  
124:11,12 129:4  
136:19 137:4  
**organics** 122:20 124:8  
**organization** 40:5 46:7  
46:15 51:10 276:6  
**organizational** 18:12  
**organizations** 50:21  
64:7 344:15  
**organized** 111:11  
**orient** 177:7  
**oriented** 200:20 355:5  
**original** 345:14 353:20  
356:5 394:8  
**originally** 36:2 171:3  
341:21 353:21 354:7  
**Orleans** 57:7,8 119:20  
217:10  
**other's** 236:10  
**ought** 164:6  
**outclassed** 277:5  
**outcome** 27:22 127:17  
**outcomes** 234:4 235:11  
236:6  
**outdated** 19:18  
**outfacing** 62:15  
**outlined** 101:22 120:10  
**outlining** 307:1  
**outpacing** 298:16  
**output** 315:4 317:19,20  
**outreach** 4:5 35:2 62:2  
62:18 64:20 113:7  
114:10 124:19  
**outset** 185:1  
**outside** 56:9 64:22  
90:12 226:13 288:8  
301:3  
**over-budget** 328:15  
**over-fished** 75:11

78:20  
**over-fishing** 75:3,8  
**overall** 36:12 37:18  
170:15 321:1  
**overarching** 17:16,22  
18:1 19:16 36:7 49:17  
183:5 343:1 346:5  
350:16  
**overdue** 175:19 284:15  
**Overfishing** 63:22  
**overlap** 23:14 333:12  
**overlaps** 22:8  
**overlay** 205:22  
**overlying** 101:17  
205:21  
**overly** 347:14  
**overnight** 23:6 364:9  
**overreaching** 74:13  
**overseas** 88:14 177:13  
**overstates** 131:9  
**overview** 50:6 112:13  
**owner/operator** 2:8 7:2  
**ownership** 151:1  
**owning** 61:10  
**owns** 183:14  
**oyster** 108:8,17  
**oysters** 76:20 77:9  
112:4

## P

**P-R-O-C-E-E-D-I-N-G-S**  
5:1  
**p.m** 262:11,12 333:8,9  
403:13  
**P3s** 213:13  
**pace** 298:8  
**PacFIN** 50:22 51:10  
397:22  
**Pacific** 2:3,7 3:14 6:1  
11:2,3 13:10 15:4  
20:15 24:14,17 31:7  
31:10,16 33:4,7 43:2  
49:18 82:17 106:1  
175:8 176:5 177:16  
183:12 230:7 291:2,3  
351:18 397:22  
**package** 138:7 213:18  
**packages** 214:8  
**pad-like** 270:11  
**page** 40:12,19,22 43:22  
46:11 52:8,16 173:20  
388:19 391:1 395:15  
401:17,19  
**pages** 17:16 39:7 45:8  
68:14  
**paid** 268:2,2 281:4  
**pain** 364:3  
**painful** 375:2

**paints** 271:3  
**Pam** 6:16 140:6 169:5,6  
345:21  
**Pam's** 144:16  
**PAMELA** 2:10  
**pamphlet** 74:9  
**Panasonic** 277:15  
**panel** 74:4  
**paper** 29:3 352:15  
364:15  
**papers** 12:4 314:4  
**paperwork** 103:17,17  
103:18  
**paragraph** 344:14  
349:18 350:6 379:4  
380:1 389:2  
**parallel** 295:5  
**paraphrasing** 346:17  
**pardon** 111:21 320:15  
**parents** 267:16  
**paring** 286:5  
**parking** 199:19 200:2  
**part** 9:4 10:17 15:1 17:4  
17:10 20:1 21:22  
24:20 25:9 29:5,6  
32:11 42:17 43:19  
63:11 71:8 80:12 83:1  
83:9,22 84:6 96:22  
101:1 102:12 103:7  
109:14 120:14 130:11  
135:14 136:20 139:16  
139:19 149:14,17  
153:1,19 154:8  
162:17,19 169:18,20  
175:14 177:5,11  
178:6,7 197:3 217:22  
224:5,8 225:7 230:6  
238:2 242:2 253:22  
258:22 261:6 282:3  
284:7 285:11 291:11  
296:17 312:14 318:5  
318:6,22 319:12,18  
320:7 322:7 340:1  
354:19 355:12 375:11  
388:3 391:18,20  
397:9 401:11  
**Partially** 295:9  
**participants** 155:16  
295:16 386:13 389:4  
**participate** 57:8,19  
247:20 256:4  
**participated** 258:17  
**participating** 12:21  
120:5 171:18 172:1  
259:15 260:8 393:18  
**participation** 59:20  
**particular** 38:11 54:11  
88:22 99:5 101:13

114:1 139:10 185:3  
 229:3 241:16 341:22  
 355:7 381:3  
**particularly** 21:6 23:3  
 23:21 31:17 48:5  
 81:21 97:9 101:9  
 102:6 107:5 137:7  
 322:17 387:4,5  
**parties** 84:21 116:20  
**partner** 274:21  
**partnering** 215:15  
 298:3  
**partners** 35:10 46:10  
 182:10 198:14  
**partnership** 4:9 12:9  
 24:10 58:17 64:5  
 66:14 80:9 147:19  
 149:3 150:3,13 151:7  
 153:13 154:8 160:2  
 160:21 171:8 175:6  
 180:19 183:4 188:3  
 206:1,2 209:3 213:13  
 236:7 240:7 241:7  
**partnership's** 232:12  
**partnerships** 64:19  
 66:9 124:19 196:18  
 227:8  
**parts** 61:22 151:8  
 216:10 235:21 338:5  
 403:1  
**pass** 196:11 382:11  
 397:3  
**pass-backs** 327:21  
**passage** 189:10 192:2  
 192:4,5 198:3 199:2  
 203:2 204:9,10  
**passed** 191:18 192:8  
 212:7 278:9  
**password** 12:6  
**pat** 359:18  
**Patapsco** 401:8  
**patent** 67:7  
**patient** 262:15  
**patterns** 290:13  
**Paul** 2:18 4:7 8:2 23:9  
 24:20 64:20 73:2 94:6  
 94:8 100:21 101:7  
 113:20 115:20 129:11  
 133:19 137:21 139:20  
 140:6 262:22 282:16  
 286:14 315:17 322:17  
 370:14,22  
**pause** 49:9  
**paved** 219:19  
**pay** 213:1 284:16  
**paying** 38:11 213:5,9  
 213:10 218:21 230:14  
 284:14,15

**peanut** 374:14  
**Pearce** 2:8 10:12,12  
 28:19 46:19 70:4  
 80:19 115:19 118:21  
 128:19 142:8 217:9  
 217:16 296:10 299:10  
 364:3 380:21 386:1,4  
 386:21 390:8,17,20  
 390:22 392:12 394:1  
 395:11 396:20 398:11  
 399:2,19 400:2  
 401:16  
**pears** 187:6,10,10  
 190:4  
**peeling** 39:8  
**peeve** 306:9  
**pendulum** 294:18  
**penny** 281:5  
**pens** 72:9  
**people** 17:2 25:12 51:3  
 51:10 54:1,22 57:14  
 58:15 63:17 68:6 70:9  
 70:10,13,19 71:10  
 72:13 74:6 76:3 80:13  
 81:16 93:6 96:20  
 102:4 108:5 113:22  
 115:3,3 121:17  
 127:18 137:17,18  
 143:13 151:14 153:7  
 173:10 175:14 181:18  
 191:7 193:12 212:2  
 212:14 217:12 222:6  
 228:20 238:4 242:3  
 251:6 252:5 254:1  
 272:8,13,16 274:4  
 279:17 280:2 287:17  
 289:7,8 297:11  
 302:10,11 308:16  
 310:9 312:9,16 313:9  
 317:7 318:7,9 330:9  
 334:4,12 343:9  
 357:21 361:20 370:2  
 371:18,18 377:2  
 387:5 390:1 396:1,16  
 401:7  
**people's** 111:1 158:2  
**people-to-people**  
 225:21  
**peoples** 227:12  
**peoples'** 315:3  
**Perce** 165:13  
**perceived** 164:12  
**percent** 33:9 40:15 47:6  
 66:12 189:22 200:12  
 212:17,22 228:7,8  
 246:1 272:3 311:14  
 311:15 316:2 318:17  
 322:2 359:2 371:19

373:5  
**percentages** 47:3  
**perception** 114:2  
**perceptions** 115:1,8  
**perfect** 134:12  
**perfected** 201:22  
 303:14  
**perfection** 164:5  
**perfectly** 368:7  
**perform** 278:20  
**period** 57:19 107:15  
 120:13 301:5 377:11  
**periods** 391:11  
**permeable** 220:13  
**permit** 39:11 101:19,21  
 102:17 103:11,14  
 104:3,4,22 106:20  
 107:14,17 135:9,12  
 143:7,11  
**permits** 40:5 41:14,16  
 44:9 46:1,5 55:12  
 103:20 127:13 144:2  
 297:10 322:12  
**permitted** 181:4  
**permitting** 20:3,9 134:9  
 143:20  
**person** 30:13 52:4 72:5  
 78:10 128:7 256:2  
 258:15 259:7 312:8  
**personal** 313:22 314:1  
**personally** 84:15  
 138:15 294:17 309:19  
 327:12 335:9  
**persons** 389:17  
**perspective** 107:6,19  
 114:5 130:16 136:13  
 166:10,19 171:17  
 219:14 229:17 260:13  
 352:1  
**perspectives** 150:2  
 152:3 153:15  
**perturbation** 357:12,18  
 357:19  
**perturbations** 357:5,9  
**pesticide** 24:16  
**pet** 306:9  
**Peter** 2:6 9:10 246:20  
 247:9 255:7 316:15  
 319:4 370:6 377:5  
 379:16 402:6  
**Peter's** 214:11  
**Phase** 35:20 42:18  
**phased** 37:14  
**PhD** 2:21 263:8 304:22  
**philosophical** 164:1,16  
**philosophically** 166:7  
**philosophy** 17:3,22  
 18:19,20 26:11

**phone** 40:14 148:7  
 150:4 185:8 233:13  
 241:1 249:5 260:12  
**phones** 371:7  
**physical** 347:20  
**physically** 56:18  
**pick** 47:6 61:5 273:21  
**picking** 146:2 234:2  
**picture** 176:17 178:19  
 181:7 202:6 210:15  
 267:20 292:1 332:1  
 358:22 392:18  
**pie** 71:13 165:19  
**piece** 134:19 138:17  
 159:9 160:1 188:8  
 253:4,4,14 268:16,17  
 268:20 271:20 273:1  
 274:19 276:22 280:13  
 282:1 284:1 285:15  
 294:12 351:10 378:11  
 378:12 379:1 397:7  
 401:15  
**pieces** 24:18 27:21  
 64:16 139:19 173:9  
 335:1  
**pier** 267:21  
**pigeons** 108:16  
**pile** 304:20  
**piling** 304:20 373:9  
**pilot** 73:8 102:22  
 108:21 126:16 170:5  
 170:5 172:11 237:9  
**pilots** 232:17,17  
**pinch** 33:15  
**pinned** 378:3  
**pinning** 307:3  
**pinpoint** 374:3  
**pipes** 199:15 200:4  
 205:2  
**pitching** 288:12  
**place** 80:15 89:13  
 105:19 143:9 154:6  
 178:3 180:22 205:4  
 252:1,21 341:22  
 350:12 353:16 363:7  
 368:11 382:16,17  
 383:20 388:16 398:22  
 401:6  
**placeholder** 341:9  
 343:5 352:4  
**places** 41:10 112:5  
 153:21 163:10 302:5  
 341:8 344:4 363:18  
**placing** 115:11  
**plan** 93:15 95:1 104:17  
 105:17 141:12 156:22  
 196:3,4 236:22  
 261:15 326:18 336:12

336:14 337:7 338:15  
343:12 365:17  
**planet** 270:14 315:1  
375:12  
**planned** 235:9 264:1  
**planning** 35:18 37:8  
110:15 111:15,17  
147:2 156:15 307:5,7  
327:14 346:6,7,8  
**plans** 21:15 153:18,20  
154:1 156:3,16,22  
157:18 169:8,13  
170:15 172:17 235:9  
238:18,20 293:12  
340:12 344:11,17  
345:1,2  
**plant** 129:2 359:3  
**plate** 130:4  
**platform** 63:8 66:4  
67:14 68:6,10 69:8,18  
71:14  
**platforms** 22:20 49:8  
304:11,12  
**plausible** 393:22  
**play** 133:6 167:1 173:17  
176:16 260:18 361:4  
**played** 65:5  
**players** 185:18  
**playing** 143:18  
**plays** 170:15  
**plea** 322:22  
**please** 11:22 12:10  
134:13 147:11 248:10  
254:19 262:8  
**pleased** 7:9 283:2  
**pleasure** 8:3 13:4,16  
149:18 333:15 335:8  
380:10  
**plenty** 85:14 86:15  
150:1  
**plow** 402:21  
**plug** 45:6  
**point** 28:8 31:14,15  
39:20 48:17 50:17  
65:14 67:19 84:12  
88:15 94:11 100:7  
135:13 138:14 166:3  
166:3,18 167:3,15,19  
168:1,3,16 170:20  
214:11 222:11 231:3  
242:21,22 278:18  
279:5 310:10 315:16  
319:18 323:19 327:1  
349:18 350:21 353:18  
357:8 359:6 379:5  
388:20 390:16 397:13  
399:14  
**pointed** 127:5 156:4

164:21 258:2  
**pointer** 188:7  
**points** 33:15 63:15,15  
140:2 170:4 245:17  
334:18 347:7 352:5  
399:6 402:12  
**polar** 276:4  
**polar-orbiting** 276:4  
**policies** 324:12 344:17  
345:2  
**policy** 2:13,20,20 7:17  
11:9,13 27:18 28:5  
95:14 103:22 181:21  
212:7,11 237:3  
295:20 346:22  
**political** 13:8 65:1  
73:13 95:14 277:10  
328:9  
**politics** 133:6  
**pollock** 227:22  
**pollute** 68:2  
**ponds** 215:22  
**pool** 55:11 248:12  
**pools** 195:16,19  
**pop** 207:7  
**pops** 44:20  
**populating** 46:13  
**population** 159:18  
172:19 173:5,11,11  
198:13,15 206:7  
279:9 311:2  
**population-specific**  
157:17  
**populations** 164:12  
173:15,16 174:4  
272:10  
**port** 89:7 180:22 181:8  
219:14 220:1,3,5  
312:9 373:9  
**port's** 229:17  
**portfolio** 63:11  
**portion** 60:8 324:22  
338:1,2 356:20  
**Portland** 149:12 150:22  
155:14 163:14 177:17  
178:8 181:9 220:3,6  
**ports** 155:2 176:12  
181:2,11 182:10  
219:16,17,20 220:16  
281:13,20 373:6,11  
373:11  
**pose** 332:1  
**posing** 247:14  
**position** 8:11,13,16,21  
15:15 16:1 24:13 25:4  
26:9 31:7 95:6 97:10  
99:17 135:20 268:6  
269:7 275:10 283:7

290:5,6 307:10  
364:18,18  
**positions** 20:12 26:15  
26:15 27:5,14 138:8  
**positive** 201:11 240:18  
263:18  
**Positively** 78:9  
**possess** 145:7  
**possibilities** 165:1,1,16  
271:6  
**possibility** 26:20 106:5  
113:16 158:4 184:17  
185:2  
**possible** 51:2 114:17  
145:14,14 163:17,18  
165:18 185:3 223:12  
223:15 247:18 258:16  
280:6 287:11 328:22  
331:1 389:8,10  
**possibly** 91:5 364:12  
**Post** 277:1  
**posting** 39:2  
**posture** 283:7  
**pot** 180:12  
**potential** 111:15 115:6  
130:19 144:7 161:14  
161:21 162:4,12,13  
163:1 164:3 166:2,5  
166:17 167:1,9,12,22  
168:11,13,15 204:13  
222:10 271:5 281:15  
282:14 313:8 316:7  
**potentially** 93:6 146:3  
255:22 260:3 315:4  
334:17 350:17 361:4  
402:17  
**pounded** 250:13  
**pounds** 119:20 222:15  
222:16  
**pouring** 130:20  
**power** 152:8 154:5  
169:21 183:20,20,22  
230:14 370:17,19  
371:16,19 372:2,5,18  
**practical** 18:22 19:7  
34:9 164:17 226:2  
269:5  
**practically** 226:7  
**practice** 216:3,6 345:10  
**practices** 219:4 311:10  
344:16 345:6,7  
**prairie** 166:13,15  
**pre-** 321:21  
**Pre-Function** 4:18  
**precautionary** 75:15  
**precedent** 134:14  
**precipitation** 195:2,3  
**precipitous** 251:22

**precise** 307:4  
**predators** 195:19  
**predecessors** 328:6  
**predicting** 329:8  
**prediction** 271:19  
272:20 274:13 275:7  
278:2  
**predictions** 221:21  
277:12  
**preference** 333:22  
**preliminary** 101:10  
104:20 126:13  
**premise** 105:21  
**prepared** 92:12 280:2  
366:10 403:2  
**preparedness** 280:9  
**preparing** 279:10  
**presence** 303:9,10,12  
**present** 1:13 2:12 3:9  
49:8 192:17 360:4  
**presentation** 46:20  
100:22 109:18 112:19  
114:14 133:14 146:12  
147:18 148:2 149:14  
161:5 174:19 217:10  
224:1 261:14 262:4  
296:10 303:16 306:2  
324:20 392:6  
**presentations** 59:17  
148:1 303:17  
**presented** 145:1  
**presenter** 148:15  
**presenting** 244:5  
**presently** 313:5 359:10  
**preserve** 295:15 357:10  
**president** 1:18 2:10  
221:19 278:11  
**President's** 284:12  
285:8  
**presiding** 1:12  
**press** 128:4  
**pressure** 201:12  
**pressurized** 201:6  
204:22  
**presume** 93:5  
**pretty** 14:8 16:9 34:7  
35:3 51:13 52:11  
61:21 82:9 106:12  
132:3 156:13 193:20  
193:22 194:9 195:10  
198:8 202:7,9 203:17  
211:7 216:3 218:8  
219:8 222:2,9 223:13  
257:2 260:15 275:11  
279:15 281:4 282:1  
311:3,13 312:10  
316:11 317:16 327:7  
329:12 340:2 341:4

- 357:22 362:13 378:14  
397:4 402:8  
**prevent** 68:3 75:11  
280:8  
**previous** 26:12,12  
113:1 169:8 298:6  
**previously** 9:17 276:11  
368:22  
**primarily** 5:6 45:8 177:1  
202:8 268:11  
**primary** 79:1  
**principle** 134:4 385:10  
385:16 387:16,22  
**principles** 236:20 237:5  
240:1 385:13 393:19  
**prior** 172:1 189:4 317:1  
324:22  
**priorities** 17:13,18  
18:17 21:13 24:4  
135:6 235:17 269:10  
275:2 284:9 325:4  
326:9,15  
**prioritization** 306:22  
**prioritize** 61:12 324:14  
326:7  
**prioritized** 294:1,1,2  
392:3  
**prioritizing** 44:15  
**priority** 23:7 24:1 41:19  
43:16 113:17 127:22  
189:9 278:1 283:22  
284:8 285:11 293:22  
294:5 295:7 296:5  
307:2  
**pristine** 159:14 251:10  
**private** 103:4 135:13  
151:1,2 169:22  
213:15 298:4,11  
299:5 300:18 325:7  
388:7  
**privileged** 267:18  
**prize** 115:6,12  
**pro-aquaculture**  
127:10  
**pro-fish** 127:9  
**proactive** 103:21  
**probably** 22:11 30:20  
40:20 42:1,6 49:9  
55:5,19 59:10 90:9  
97:12 106:13 124:22  
139:16 149:11 151:14  
162:13,16 163:12  
173:7 210:21 222:15  
257:8 270:22 345:10  
358:16 364:9 366:16  
367:18 377:18 389:1  
390:4 393:22 397:6  
400:18
- problem** 29:6 59:7 75:1  
89:5 191:22 193:3,3,8  
196:3 217:18,20  
219:3,8 224:6,7 225:5  
296:17 324:6 351:8  
354:18 394:9  
**problems** 15:10 70:17  
75:3 116:3 205:16  
220:20 224:4,5 297:7  
381:22  
**proceed** 112:15  
**proceedings** 14:11  
**process** 7:6 15:6 17:10  
19:3,3,6 20:9 22:6,7  
23:20 26:2 28:11  
32:15,15,17 41:17  
54:4 67:9,17 75:7  
83:12 86:18 87:15  
90:21 101:19,21  
102:16 103:15 104:21  
104:22 105:6,19  
107:17 116:16 129:13  
130:11 138:14 143:7  
158:14 159:10 160:21  
163:19 169:1 171:18  
172:2,14 208:20  
233:7 236:16 242:11  
242:19 244:21 246:16  
251:7 252:20 254:6  
255:17 258:22 259:16  
299:16 300:4,5 301:4  
317:18 318:2 355:20  
356:8,13 358:17  
362:3 376:8 382:11  
382:22 383:4 391:6  
391:21 393:18 395:14  
395:20,20,22 397:21  
401:4  
**processed** 11:5  
**processes** 16:12,13  
20:4 63:3 134:10,12  
153:18,20 154:6  
213:14 279:6 296:20  
346:7 358:11 381:5  
**processor** 10:13  
**processors** 10:20  
78:14,14 98:1 117:18  
118:8 131:6  
**proclaiming** 17:8  
**proclaims** 349:13  
**produce** 88:5 162:22  
163:1 176:10 190:4  
231:9 360:12  
**produced** 34:6 71:11  
91:5,11 137:5 190:2  
322:6 342:2  
**producers** 97:22 115:5  
117:11,20,20 118:7,7  
137:15 323:1,17  
**produces** 81:11  
**producing** 190:5,13  
210:18  
**product** 69:7 72:19  
76:15 92:13 94:20  
97:5 130:8 137:4,6  
179:9,20 180:12  
185:4,12 234:1  
243:20  
**production** 22:22 23:5  
30:15 65:20 71:22  
90:20 94:16 95:8 96:2  
98:12 102:21 109:10  
117:6 141:2 152:22  
165:2 172:6 190:11  
204:13 218:12 311:19  
**productive** 384:14  
**productivity** 168:22  
**products** 27:22 97:2  
177:9,12 180:5 190:7  
236:16 237:15 238:7  
238:8 240:4 315:5  
322:6  
**professional** 73:6  
**profiles** 39:4  
**program** 4:7 30:6,12  
31:18 55:10 64:15  
69:19 76:18 94:3,22  
102:19 109:7,8  
110:22 111:5 112:17  
113:8 117:12 122:16  
122:17 182:15 218:2  
218:3 267:13 288:16  
293:5 320:6 323:11  
324:2 343:20 358:13  
358:19 383:15 392:14  
398:21 401:10  
**programmatic** 20:7  
**programs** 29:10 31:20  
32:2 89:22 122:15  
138:21,22 139:1,8  
140:19 285:5 299:8  
323:5,16 326:15  
383:9  
**progress** 20:19 26:22  
122:5 233:22 238:7  
336:9  
**project** 35:8 63:3 73:8  
79:21 115:21 125:18  
151:12 168:11 191:20  
196:17 212:8 213:4,7  
213:7 350:8  
**project's** 212:18  
**projecting** 272:12  
**projection** 311:14  
**projections** 311:5  
**projects** 5:17 9:8 82:20
- 103:1 108:22 109:6  
126:16 139:15 144:20  
151:11 170:5 210:13  
210:15  
**prominent** 40:21  
**promise** 82:14  
**promising** 201:17  
223:14  
**promote** 10:3 91:1 95:7  
121:17 205:14 281:11  
**promoting** 71:19 127:7  
131:10  
**promotion** 135:22  
**promptly** 148:8 262:9  
**pronounce** 221:7  
**pronunciation** 221:8  
**propaganda** 74:19  
**property** 215:7 274:7  
279:20 280:1  
**proponent** 393:8  
**proposal** 138:10  
**propose** 388:20 393:2  
**proposed** 105:15 184:6  
357:15  
**proposing** 138:16  
**proprietary** 391:19  
**prospects** 223:7  
**protect** 266:15  
**protected** 18:9 145:9  
**protecting** 44:11 381:5  
381:6,6 391:19  
**protection** 10:4 20:3  
78:22 86:2,6 205:9  
**protections** 30:19  
**protects** 389:21  
**protein** 71:12 95:22  
96:2,5,7  
**protocol** 394:2 395:22  
397:11 401:3  
**protocols** 383:20 391:3  
391:5 392:22 394:19  
395:12 398:3 401:13  
401:22  
**prototype** 206:11  
232:21 238:11,22  
**prototypes** 223:9  
232:15,17 251:9  
**proud** 10:17  
**provide** 26:1 33:17  
55:20 99:17 100:6  
106:19 115:13 121:8  
143:21 158:9 166:8  
241:11 243:8 391:2  
397:18  
**provided** 146:8  
**provides** 72:6 115:14  
153:11 278:12 370:7  
379:5

**providing** 11:9 55:15  
77:10 119:12 239:1  
239:12,20  
**provision** 102:18  
**provisions** 86:6 123:10  
**PTSD** 372:7  
**public** 1:6 2:17 38:6  
56:12,14 57:18,20,21  
62:15 67:4,14 68:5  
71:4 72:20 84:19 96:6  
114:2,22 137:14  
283:13 331:6 397:14  
398:19  
**public-private** 213:13  
**publications** 38:17  
**publish** 41:5  
**Puerto** 72:4 90:22  
308:9,15 340:21  
341:4,8 343:15,21  
344:5 350:10 351:1,8  
363:18 365:12,15  
367:19 369:17 370:20  
372:15,21 374:5  
**pull** 41:3 62:22 118:10  
122:1 132:13 156:2  
156:17 157:2 181:19  
196:8 281:20 352:22  
353:8 374:9 383:19  
**pulled** 129:14 155:11  
182:11  
**pulling** 65:8 104:7  
156:7 181:16  
**pulls** 281:1  
**pulsated** 102:4  
**pump** 205:1 371:10,11  
371:13  
**pumps** 371:6  
**pun** 111:21  
**punch** 287:19  
**punctual** 147:5  
**purpose** 30:11 67:13  
166:9 291:21 367:15  
381:13  
**purposes** 385:21  
**push** 5:5 63:1 82:20  
88:22 118:2,11  
123:18 297:5 364:10  
**pushed** 8:13 185:5  
327:3  
**pushing** 69:11 122:22  
123:20 127:1 178:12  
364:13 375:13  
**put** 8:18 17:11 25:8  
29:2,11 40:21 43:14  
53:15 54:4 60:9 63:14  
68:17 69:1 75:21  
85:11 98:21 99:9,22  
100:7 105:16 109:5

115:21 129:4,7  
133:21 134:4 143:14  
144:11,11 167:17  
183:14 193:4 196:11  
200:2 201:11 205:2,2  
208:3 215:8 218:14  
227:7 255:17 296:15  
300:5 323:16 326:17  
327:13 340:9,18  
346:21 351:4 352:9  
352:12 360:2 368:8  
370:5 375:14 376:14  
378:8,12 383:11  
391:6 398:21  
**puts** 371:17  
**putting** 40:7 62:16,17  
62:17 63:11 67:4  
72:18 92:19 95:1  
126:6 192:3 203:1  
204:9 207:21 216:12  
273:13 364:15 394:19

---

### Q

**QR** 76:18  
**quagmire** 29:16  
**qualified** 256:7,13,15  
**qualitative** 237:6,13  
239:13  
**quality** 40:8 163:13  
218:3 225:4,9,18  
401:4,9  
**quantitative** 235:1  
237:8,13 239:2,14,16  
**queen** 91:3  
**question** 27:2 56:8 57:5  
90:19 98:21 99:12  
104:13 105:10 107:7  
114:21 120:3 121:19  
128:21 141:14 161:9  
161:13 162:2,2  
163:21,22 164:10,16  
164:20 167:5,16,20  
169:4,7,13 170:11  
171:5 172:16 183:13  
211:17 217:22 221:2  
224:3,10 225:21  
230:11 231:16 233:8  
240:12,13,21 245:21  
251:8 291:14 295:8  
305:10 306:4 307:13  
314:13,19 329:1,5  
334:14 335:14 353:19  
354:19 356:5  
**questioning** 167:8  
**questions** 13:2 25:13  
25:16 34:3 46:18  
52:20 56:2 68:16 70:2  
76:7 84:2,14 108:2

114:7 123:17 144:3  
158:13 161:3,7 168:6  
169:7 174:17 183:8  
186:9 206:8 207:6  
224:2 233:19 240:7  
242:16 244:22 246:16  
247:13,21 260:11  
290:8 310:5 316:13  
331:3 370:2 383:2  
384:13 390:9  
**queue** 128:18 217:7  
220:22 305:12,20  
**quick** 90:15,18 112:13  
179:16 243:6 292:21  
339:5  
**quicker** 297:15 317:5  
362:3 364:5 382:10  
**quickly** 24:19 50:5  
88:18 274:3 321:2  
364:11 381:8 387:12  
**quietly** 35:4  
**quite** 9:2 11:5 53:21  
58:8 77:8 84:16 95:5  
95:20 126:10 150:19  
175:9 179:4 194:6  
199:6 221:20 223:10  
225:15 234:11 240:2  
244:17 250:8 260:19  
271:2 305:12 333:5  
339:14 348:22 354:8  
355:16 358:20 368:21  
375:7 387:12 391:11  
399:4  
**quota** 291:4  
**quotas** 74:15

---

### R

**rabbit** 67:16 175:9  
370:6 402:8  
**Rai** 71:16 76:13 90:14  
165:20 167:4 305:20  
307:12 343:12 370:11  
374:8  
**railroads** 216:2  
**Raimundo** 2:3 9:20  
**Raimundo's** 167:15  
**rain** 187:16 194:10,13  
195:6 363:20  
**rainfall** 195:3  
**rains** 195:14  
**rainstorm** 224:6  
**raise** 34:2 88:2 136:16  
265:5 270:20 315:20  
**raised** 130:4 199:4  
334:19  
**raises** 107:22 231:16  
**ramp** 64:1  
**ran** 76:22 123:14

200:14  
**random** 45:1  
**Randy** 2:3 5:22 60:12  
60:13 83:4 84:12  
132:17 142:6,17  
230:9 256:8  
**range** 120:11 151:3  
159:15 187:15 194:22  
195:1 209:9,10  
**ranges** 164:11 237:11  
**rapid** 271:21 355:20  
**rapidly** 92:3 193:20  
211:7 270:4 273:15  
276:8 288:20  
**rare** 306:5  
**rationale** 101:3  
**rationalized** 30:12  
31:17 32:2 358:13,19  
**rationed** 370:19  
**rattle** 310:5  
**raw** 310:17  
**RDML** 2:14 4:13 264:2  
264:8,11 265:22  
266:5,10,19 282:19  
290:18 291:15 295:21  
297:18 300:10 301:13  
301:17,21 302:18  
304:19 305:14,18  
307:12,18,21 308:3  
309:9 310:1,18,20  
312:1,4 313:2,6,15,19  
313:21 315:6,11,15  
316:13,20 319:4,11  
319:14,19 320:3,6,14  
320:17,22 321:16,19  
323:19 324:8,18  
325:19,22 326:2  
329:9 330:14,16  
331:14 332:2,6,9,21  
**re-** 102:13  
**re-introductions**  
250:14  
**re-licensing** 108:12  
**reach** 48:9,10  
**reaching** 70:8 75:19  
174:5  
**react** 138:13 364:5,7  
**reaction** 354:21 357:1  
**read** 23:11 172:16  
270:19,21,22 271:4  
280:22 307:14 339:13  
340:7 342:3 351:6  
393:3  
**readiness** 329:20  
**reading** 80:1 108:14,17  
347:14 377:14  
**ready** 34:17 37:5 80:3  
81:15 82:16 92:6

105:7 143:10 203:12  
207:6 251:2 359:3  
**real** 15:19 51:1 59:18  
74:22 79:6 88:18  
89:11 125:12 128:11  
139:17 209:17 253:7  
262:20 275:7 277:13  
289:11 293:1 317:8  
328:2 339:4 350:13  
351:3 368:15 369:15  
372:13 375:3 376:9  
387:12  
**real-time** 382:2 383:15  
385:4  
**realigning** 28:4  
**realistic** 165:17  
**realistically** 226:4  
**reality** 29:8 94:16 136:5  
313:11  
**realize** 70:10,11 71:10  
80:13 265:2 352:18  
390:5  
**realizing** 304:9  
**realm** 159:5 160:18  
237:3  
**Rear** 13:20 262:6  
**reason** 113:4 132:9  
135:14 148:11 241:2  
326:19 343:21 394:11  
395:5 397:8  
**reasonable** 124:6  
**reasons** 15:16 57:1  
182:21 225:4 226:12  
241:2,17  
**reauthorization** 15:12  
20:14 25:22 26:10,21  
**Rebecca** 2:19 4:5 34:20  
35:4,11,14 53:17 60:8  
61:17  
**rebound** 283:10,11  
**rebuild** 158:8 371:21  
**rebuilding** 20:20 21:11  
**rebuilt** 80:3,14  
**recall** 205:7 248:14  
**recapitalization** 326:18  
**recapitalize** 327:2  
**receive** 54:12  
**received** 111:14 121:14  
220:2 335:5 337:12  
**RecFIN** 397:22  
**reclaiming** 216:16  
**Reclamation** 3:11  
186:14 187:3  
**recognition** 80:10  
115:14  
**recognizable** 181:16  
**recognize** 85:7,21  
127:20 168:9 176:13

182:1 219:7 245:7  
402:11  
**recognized** 64:9 84:19  
**recognizing** 169:21  
**recollection** 360:19  
362:16,22  
**recommend** 100:11  
397:21  
**recommendation** 59:21  
99:11 184:18 206:5  
232:11,13,21 248:20  
340:10 341:10 350:18  
351:5  
**recommendations**  
23:12,14 24:2 77:5  
184:14 237:20 239:12  
239:21 242:8,11,14  
243:2,8,13 244:6,22  
250:3 324:21 338:21  
339:16 342:6 343:1,5  
343:8 345:14,15  
352:8 353:20 363:3,6  
**recommended** 100:1  
239:17  
**reconcile** 290:15  
**reconsider** 341:10  
**record** 32:21 93:21  
135:10 148:19 262:11  
333:8 403:13  
**recover** 18:9 158:4  
311:12  
**recovered** 159:22  
**recovering** 154:12  
**recovery** 155:18 156:1  
156:15,21 157:18,18  
158:3,6 160:16 163:9  
172:16 173:9,10  
175:8,18 235:5  
236:13 251:18 309:12  
**recreate** 156:19  
**recreation** 155:3  
210:20 280:19 281:8  
314:12  
**recreational** 10:2 21:6  
23:22 38:6,12 44:8  
47:10,13 48:11 155:1  
254:1 282:15 335:22  
337:6  
**recruitment** 295:18  
378:7  
**recruits** 378:2  
**red** 75:4,5,13 77:12  
91:2,3,6 119:18,21  
187:9  
**Red-Nosed** 266:1  
**reduce** 19:17 323:16  
392:3  
**reduced** 391:11

**reducing** 19:19 380:4  
**reduction** 375:14  
376:15  
**redundancy** 392:3  
**redundant** 37:12 40:9  
41:11  
**reef** 343:19  
**reestablish** 164:11,12  
189:16  
**reestablished** 204:2  
**reestablishing** 198:22  
**refer** 53:1 178:16  
**reference** 54:14 167:19  
168:16 233:21 236:21  
**referring** 388:15  
**refers** 97:15  
**refinance** 365:19  
**reflect** 18:18,19 251:5  
**reflected** 389:11  
**reflective** 176:3  
**reflexive** 95:19  
**reform** 19:11,12  
**refresh** 261:19  
**refreshing** 175:13  
**regain** 275:15  
**regaining** 277:2  
**regard** 32:7 74:3 368:5  
**regarding** 135:5 239:22  
**regardless** 74:16  
161:15  
**regards** 275:6  
**region** 2:17 32:8,18  
41:8 42:19 43:3 44:17  
49:15 55:3 108:8  
109:6 148:4 181:18  
182:13 193:9 259:8  
259:12 273:17 290:17  
345:3 393:6  
**regional** 3:17 6:21  
15:10,10 21:14 43:1,2  
45:2,9 51:22 55:9  
110:12 111:22 147:16  
147:17 149:7 156:5  
184:12 249:6 385:1  
395:8 397:22 398:3,4  
**regionally** 103:21  
**regionally-specific**  
241:15  
**regions** 31:13 40:4  
42:18 45:5,17,19 49:7  
254:9 294:14 319:13  
319:22 377:9 385:4  
**Register** 56:12,13  
**regular** 242:18 259:6  
261:3  
**regularly** 341:11  
**regulate** 105:14  
**regulating** 127:7

**regulation** 135:22  
**regulations** 19:19 22:1  
22:3,7 30:10 32:11  
38:18 44:10 45:14  
102:9 323:3  
**regulatory** 18:13 19:5,6  
19:11,20,21 21:22  
22:6,7 23:20 30:9  
31:22 32:1,7,10 55:13  
99:15 101:17 102:8  
103:8 104:15 107:12  
110:13 131:21 145:2  
173:21 174:10 286:5  
323:8 346:1 358:17  
**Reindeer** 266:2  
**reins** 158:21  
**reintroduce** 165:8  
**reintroduced** 102:13  
**reintroduction** 165:3  
**reinvent** 363:4  
**reiterate** 140:5,16  
336:13  
**relate** 30:8 153:20  
372:12  
**related** 9:8 20:6 24:6  
41:9 152:7 154:12  
155:18 205:13 277:22  
334:17  
**relates** 31:14 165:3  
195:5  
**relations** 391:14  
**relationship** 31:9 196:6  
240:14 250:6  
**relationships** 193:6,7  
236:9  
**relative** 20:4,5 26:2  
95:22 112:21  
**relatively** 301:5  
**release** 144:14 293:8  
**released** 283:15 293:8  
340:13,16  
**relegated** 355:9  
**relevant** 209:5 238:12  
292:20 386:15  
**reliable** 208:13  
**reliant** 51:6,6  
**relieving** 313:3  
**reluctant** 122:13  
**rely** 176:3,6,9 182:20  
214:20 368:3  
**remaining** 43:4  
**remark** 53:8  
**remarkable** 165:9  
**remarks** 30:1 34:7,14  
65:14 73:21 94:7  
263:18  
**remember** 15:15 33:19  
63:21 74:4 184:22

249:20 251:18 252:11  
253:11 372:3,6 373:4  
374:16  
**remind** 247:20  
**remiss** 135:3  
**remove** 313:10  
**removed** 165:11  
**removing** 40:9  
**renewing** 22:13  
**rents** 343:20  
**reopen** 211:9  
**repair** 163:10  
**repave** 220:3  
**repaved** 220:11  
**repeat** 161:9 387:12  
**repeated** 340:2  
**repeating** 287:13  
**replace** 325:9  
**replacement** 220:14  
**report** 4:3,12 23:12  
24:2,5 175:21 184:13  
240:3 242:9 253:12  
262:4 288:2 293:9  
302:2 334:8 337:14  
375:21  
**reporter** 11:21 57:2  
264:6  
**reporting** 143:12 243:1  
255:9 338:4  
**reports** 49:1,12 245:3,6  
250:22 283:14 287:13  
342:2,20 347:5  
**represent** 5:14 69:6  
176:13 256:17 261:22  
**representation** 12:2  
**representations** 237:10  
**representative** 247:11  
247:19 258:14  
**representatives** 55:8  
121:15 171:9,13  
241:8 287:8  
**represented** 47:10  
97:21 238:1  
**representing** 55:16  
**represents** 66:12  
**request** 90:3  
**requested** 354:2  
**requests** 58:18  
**require** 61:3 68:4  
**required** 53:15 143:2  
173:1 181:6 185:11  
**requirement** 264:6  
**requirements** 53:14  
107:5 172:18 338:5  
**requires** 358:7  
**research** 2:10,11 5:17  
6:17 22:19,21 102:18  
103:4 109:15 110:4

110:20 117:13 124:18  
138:22 201:5 278:9  
293:5 298:8,10,11  
302:12 304:13 318:16  
318:22  
**Reservation** 188:17  
**reservoir** 198:5,8  
199:11,15 200:4,11  
201:15 212:21  
**reservoirs** 189:7,8,11  
198:4,4 204:11 208:2  
208:3  
**reside** 5:13  
**resilience** 4:15 272:16  
280:9 306:8 333:17  
336:21 337:15 341:7  
347:18,19 353:13,21  
354:19,20,22 355:12  
357:5,9 360:21  
361:16 363:8,13,15  
367:19,20 373:10  
**resiliency** 337:22  
340:12 341:11 344:17  
346:8 372:21 388:6  
**resilient** 208:9 340:4  
348:17 354:5 356:9  
358:7 361:1,5 364:1  
368:1 384:14 386:16  
**resistance** 95:20  
**resolve** 123:17 144:8  
**resolved** 127:16  
**resolving** 27:4  
**resonates** 63:16  
**resource** 18:11 110:11  
170:21 268:19 272:21  
274:12 281:16 283:6  
287:22 311:19 315:13  
**resources** 10:4 21:20  
44:1 45:19 67:19  
110:17 140:12 157:9  
235:16 257:10 280:15  
298:1 310:17 326:5  
346:16 373:13 375:20  
376:5 380:2 391:12  
**respect** 135:6 136:18  
137:21 140:2 245:7  
268:18 272:17 274:16  
319:2  
**respectful** 330:3  
**respects** 95:9 357:3  
**respond** 291:14 340:22  
362:2 376:12  
**responders** 279:4  
**responding** 48:14  
167:20  
**responds** 75:8  
**response** 80:6 120:2  
268:18 306:3,21

307:9 308:7 349:4  
357:5  
**responsibilities** 142:22  
152:4,10,19 158:10  
186:1  
**responsibility** 143:5  
152:15 153:1  
**responsible** 18:10  
70:14 72:16 225:13  
**responsive** 48:2 359:19  
**rest** 48:1 212:15 239:5  
239:10 253:1 403:3  
**restaurant** 7:4 89:8  
91:4  
**restaurants** 7:7 47:17  
70:21 119:10 130:7  
301:14  
**restoration** 112:2  
166:11,12 221:20  
**restore** 166:13 285:5  
**restores** 327:19  
**restoring** 208:8 216:22  
**restrict** 324:13  
**result** 134:15 183:3  
291:8  
**resulting** 153:16 253:15  
**results** 17:18 18:17  
37:6 41:3 243:8 298:9  
**resumed** 93:21 148:19  
262:11 333:8  
**resuming** 94:1  
**ret** 2:1  
**retail** 7:7 84:10  
**retailer** 68:14 75:22  
**retailers** 66:13 68:11  
69:13 70:9 73:20  
91:21 92:15  
**retain** 274:11 275:8  
357:17  
**retired** 9:16 263:5 267:1  
**retracted** 377:12  
**retry** 162:1  
**return** 8:20,21 285:17  
**returned** 170:19  
**returns** 253:8,12,15  
**revamp** 367:3  
**revenue** 321:22  
**revenues** 378:14  
**review** 4:2 32:12,22  
77:4 104:1 149:16  
325:4 335:4 338:10  
342:17,18  
**reviewed** 248:15,16  
343:4  
**reviewing** 19:20 55:15  
77:9  
**revise** 367:18  
**revised** 369:4

**rewarding** 75:14 269:4  
**rework** 123:14  
**RFPs** 144:13  
**Rheault** 2:9 6:6,6  
105:11 126:20 324:17  
324:19 325:15,20  
329:4 357:3  
**rhetoric** 364:14  
**RICHEN** 1:20  
**Rico** 72:4 90:22 308:9  
308:15 340:21 341:4  
341:8 343:15,21  
344:5 350:11 351:1,8  
363:19 365:12,15  
367:19 369:17 370:20  
372:15,22 374:6  
**rid** 362:13  
**ride** 200:9 226:17 268:5  
**ridge** 188:14  
**riff** 329:9  
**rights** 170:13,17 191:13  
252:18  
**rightly** 148:21  
**Risenhoover** 19:13  
**risk** 142:3 229:3 323:16  
375:14,18 376:15  
380:4  
**Rita** 279:14  
**river** 12:8 150:20 152:8  
154:5 160:14 163:11  
163:11 169:21 176:4  
176:9,14 177:14,18  
178:4 179:8,12,13,22  
180:10 181:11,12  
182:1,6,20 188:4,12  
188:18 190:9,11  
191:2,19 196:13  
197:9,12 198:7,22  
199:1 200:10 206:14  
217:11 218:7 219:5  
221:18 222:13,18  
234:20 235:22 236:1  
251:18  
**riverine** 384:9  
**rivers** 176:21 177:8  
**road** 146:1 273:18,19  
348:12 364:22 382:21  
**robbing** 274:7  
**ROBERT** 2:4,9  
**robust** 41:4 75:15 172:4  
326:9 344:16 381:3  
**rockfish** 78:6  
**Rockport** 14:16,18  
**Rod** 273:8  
**Roger** 1:18 7:2 10:6  
66:20 74:1 84:8  
122:11 128:21 294:15  
300:11 317:3

**Roger's** 77:3 92:16  
136:18  
**role** 13:17 28:3 65:4  
112:16 114:11 120:14  
131:2,19 143:19,19  
143:20 167:1 176:15  
248:22 249:1 361:3  
**roles** 7:20  
**roll-off** 220:7  
**roll-on** 220:7  
**rolled** 296:6  
**rolling** 87:3  
**romantic** 82:9  
**Ron** 326:20  
**roof** 383:19  
**room** 1:11 5:9 15:7  
37:20 61:19 69:6  
147:14 149:21 232:6  
251:7 252:16 268:20  
287:5 333:19 334:21  
**rooms** 333:13  
**root** 354:17  
**roots** 320:1  
**Ross** 283:17  
**rough-in** 203:11  
**roughly** 15:2 114:18  
177:14 180:6  
**route** 273:19,20,22  
**routes** 282:8  
**routinely** 97:15  
**row** 194:1,2  
**rubbing** 331:11  
**Rubino** 2:21 4:8 23:10  
94:4,6 98:4 100:13,20  
113:19 117:2 119:8  
123:2,22 124:3 126:2  
133:10 141:11 143:6  
146:7 322:17 334:19  
**Ruckelshaus** 155:12  
205:7,8,14  
**Rudolph** 266:1,14  
**rule** 107:1 124:4,5,6  
143:7 257:8 273:9  
**rulemaking** 45:18  
137:13  
**rules** 38:17 44:9 45:5  
45:13 75:15 89:12,17  
123:8 286:10  
**run** 11:19 13:2 89:11  
92:11 131:11 198:7  
198:11,21 218:7  
278:17 366:10 403:11  
**running** 42:15 197:4,5  
**runoff** 198:1 217:18  
218:11,16,19 219:14  
219:15 220:15,17  
224:4,6,11  
**runs** 190:9 192:2

221:22 224:7  
**Russia** 284:20

---

**S**

---

**sablefish** 50:14  
**Sacramento** 148:13  
**sad** 283:5 329:22  
**safe** 88:3  
**safety** 87:17,22  
**sail** 304:2  
**sailors** 329:19  
**sales** 50:15 83:16  
**salmon** 24:14,17 30:2  
33:3,6 122:16 130:1  
151:9,21 152:12  
153:4,7 154:12  
155:18 156:1,19  
159:2 161:16 163:11  
163:11 165:2,3,5,8,13  
169:8,10 172:17  
175:8 183:12 190:8  
221:18,19,20,22  
222:14 227:11 234:12  
234:14 235:5 236:12  
244:13 251:18 253:3  
261:18  
**Saltonstall-Kennedy**  
109:7 110:19  
**saltwater** 117:16  
**Sanctuaries** 280:20  
**sanctuary** 281:1  
**sandwiches** 148:9  
**Sandy** 278:19 327:7  
**Santa** 264:17 265:5,12  
266:8  
**Sapiens** 270:22  
**satellite** 276:4,12,13  
**satellites** 325:12  
**satisfaction** 37:16,18  
38:10 39:22  
**satisfy** 38:20,21 171:21  
**saturated** 329:21  
**save** 57:12 170:2  
245:17 294:11  
**saved** 196:12 280:1  
**saving** 295:13 302:9  
308:12 330:8  
**savings** 330:11  
**saw** 113:5 194:6 273:2  
279:21 292:1 329:14  
400:15  
**saying** 15:17 60:17  
61:6 104:17 133:4  
135:11 136:12 196:1  
204:16,20 228:17  
250:17 296:4 300:9  
314:19 321:9 326:19  
349:5 377:15

**says** 74:10 109:18  
128:7 190:7 258:11  
344:15 345:1 348:2  
350:7 385:19 388:10  
**scale** 200:12 307:4  
318:12 356:12 357:6  
393:4,4  
**scales** 160:5  
**scan** 76:19  
**scanning** 39:6  
**scenario** 184:8  
**scenes** 35:5  
**schedule** 5:6 34:16  
39:19 42:11,22 94:2  
257:22 262:19 328:16  
380:12  
**scheduled** 93:4 148:11  
233:14 336:16  
**schedules** 21:11  
**schizophrenic** 127:6  
131:9  
**school** 140:22  
**Schwite** 24:12  
**science** 22:14,21 23:16  
31:10,11 42:19,20  
43:2,5,5,6 45:10,10  
55:3,9 107:13 140:13  
143:21 163:4 228:6  
229:22 230:1 285:21  
287:1 293:9 299:21  
303:18 304:13 317:11  
318:6,7,19 320:11  
340:13 383:13,16,16  
383:17 384:2 391:9  
391:14 392:7,16  
398:18 399:13 400:7  
**science-based** 66:7  
286:4 384:18  
**sciences** 268:9 269:6  
**scientist** 2:10 318:15  
390:14 400:6  
**scientists** 38:5 39:17  
253:9 266:11 311:6  
399:9  
**scope** 150:11  
**score** 37:18  
**scores** 38:9,10  
**Scotland** 122:16  
**scratch** 341:5  
**Scripps** 263:9 304:21  
**scuba** 281:3  
**se** 245:11  
**sea** 1:18 2:10 6:17 7:2  
33:11 109:8 110:5,21  
172:21 227:22 267:9  
267:11 273:22 292:2  
301:15 303:21 304:3  
305:1 312:8

**seafood** 2:7 10:16 11:2  
22:22 23:4,5,20 30:14  
44:6 62:2 63:12,14  
64:11,12,14,15 65:3  
65:10,20 66:2,14,16  
66:18 67:15 68:16  
69:12,13 71:11 72:4  
73:14,15 76:1 81:20  
82:18 84:11 86:8  
91:14,20 92:1,5,6,7  
94:14 96:22 97:2,15  
114:1,5 117:6 121:18  
132:4 286:16 324:1  
**seals** 269:2 302:8  
**seaport** 178:17  
**search** 37:6 40:17,17  
40:21 41:1,2,14  
**searches** 37:4  
**seas** 23:13 304:4  
**season** 21:9 194:17  
**seasonal** 294:3  
**seasoned** 331:22  
**seat** 396:22  
**seated** 8:20 148:22  
**Seattle** 187:14 188:11  
188:15 303:17  
**SeaWeb** 82:17  
**seaweed** 111:5,6,7,9,12  
**Sebastian** 1:17 9:12  
10:7 127:2 133:12  
142:14 244:9 321:7  
323:20  
**Sebastian's** 142:9  
**second** 18:8 44:12  
87:18 95:15 102:12  
141:8 144:18 190:10  
225:20 256:2 271:20  
275:11 285:11 286:18  
310:22 334:21 335:16  
344:14 386:7 387:14  
387:20 392:21  
**Secondly** 116:18  
**seconds** 201:14  
**secretary** 2:14,15 3:10  
4:12 8:7 27:17 97:11  
97:14,19 98:3 99:9  
120:7,22 121:2,13  
142:12 184:15 186:11  
187:22 240:19 241:4  
243:3 263:1,2 275:14  
277:11 283:16,16  
286:13 288:6 324:4  
338:8  
**Secretary's** 121:20  
328:12  
**section** 176:22 343:15  
384:22 388:19 390:16  
**sections** 58:13 357:16

- sector** 47:10 101:9,12  
102:20 103:3 110:2  
138:20 139:4 289:4  
298:4,11 299:5  
300:18 325:7 331:6  
343:18 388:7
- sectors** 276:9 280:18  
281:10 289:13 393:5
- security** 106:21 135:11  
139:6 268:12,14,16  
268:17,19 274:19  
284:10 285:12
- seeing** 96:2,10 116:17  
148:3 193:2 195:7,16  
209:7,17 224:22  
225:1 229:6 290:13  
293:17 319:1 324:5  
330:22
- seek** 44:9
- seeking** 39:11 45:22
- seen** 19:9 30:16 70:22  
96:12 97:4 101:6  
138:6 164:21 172:10  
175:14 194:20 257:12  
265:6 266:1 283:10  
292:5 309:19 316:2  
350:8 368:18 371:4  
374:2 377:10
- segue** 74:22 369:17  
370:7
- selecting** 145:12
- self-consciously**  
120:17
- self-management**  
31:19
- self-policing** 218:22
- sell** 145:22
- semantics** 166:22
- Senate** 8:10,16,19  
208:17 212:9,10  
277:17
- Senator** 102:12 106:5
- senators** 16:16
- send** 29:3 88:14 184:14  
216:1 288:5 337:16  
367:4 374:10 379:12  
380:9
- sending** 369:2
- sends** 244:11
- Senior** 2:10
- sense** 66:5 87:13 134:5  
138:16 168:7 172:6  
232:22 254:13 258:1  
347:6 350:5 356:4  
389:22 396:18
- sensitive** 389:21
- sent** 334:9,10 381:10
- sentence** 235:3 389:1
- separate** 196:10 334:4  
335:7,13
- September** 241:20  
267:1
- sequentially** 103:16  
334:3,22 335:11  
336:18
- series** 82:17 118:5
- serious** 19:12
- seriously** 316:10
- serve** 30:11 120:14  
218:21 255:22 321:11
- served** 138:3 255:8
- service** 2:1 7:12 8:22  
9:17 103:12,13  
108:21 115:3 118:8  
119:12 127:19 154:2  
200:13 278:16 319:5  
321:9 327:4 347:16  
366:6
- Services** 44:1
- servicing** 289:3
- serving** 83:7 248:17
- session** 147:11 158:20
- set** 31:20 46:16 103:18  
103:18,18 123:17  
125:11 137:10,12  
157:4,11 164:4 168:9  
168:22 193:8 215:22  
236:20 237:4,6  
323:21 395:21 396:1
- sets** 103:16,17
- setting** 97:14 100:4  
145:4 158:14 159:8  
159:10 160:21 201:18  
324:12
- settlers** 202:16
- seven** 64:2 66:9 358:12  
360:1
- seven-day** 276:8
- Seventy** 189:22
- severe** 350:9
- shadow** 187:16
- shallow** 292:12
- shallower** 178:9
- shape** 106:12 200:19  
365:6
- shaping** 269:15 274:22
- share** 30:6 31:18 32:12  
124:12 282:21 288:1  
288:22
- shared** 157:10,11  
185:21 393:16
- sharing** 392:22
- sheer** 176:19
- shelf** 92:9,11
- Shelley** 246:18 255:8
- shellfish** 2:9 6:8 9:6  
101:20 105:4 107:21  
111:17,21 112:1  
117:17 118:7
- sheltering** 279:10
- Sheraton** 1:11
- shift** 229:18
- shifted** 294:18
- shifting** 166:2
- shifts** 168:3
- ship** 28:4 128:1 304:1  
326:18 329:18 330:9
- shipping** 272:2 274:1  
281:13 282:7 289:14  
310:14,18 312:2,6,13  
313:4
- ships** 220:7 276:17  
312:7
- shiver** 244:11
- shocking** 372:7
- shoot** 181:17 303:22
- shooting** 39:20 303:20  
398:10
- shopping** 41:1
- shore** 116:7 290:4
- shores** 284:22
- short** 148:7 223:5  
260:15 355:8 357:13  
380:1
- shorter** 160:12 357:6
- shot** 137:15 217:12
- should've** 337:12
- show** 12:5 43:9,13  
45:13 76:19 92:6  
183:11 209:13 341:7
- showed** 176:17 188:5  
228:6 298:7
- showing** 176:19
- shown** 133:20 134:2
- shows** 41:10 45:1 273:7  
311:17
- shrimp** 2:4 76:20  
122:17 378:5
- shrunk** 377:13
- side** 20:8 36:4,4 47:5  
113:13 129:20 140:13  
143:11,16 163:4  
166:11,12 168:22  
172:8 174:9,14  
175:16 183:20 207:19  
210:18 212:20 223:9  
223:10 228:15 249:22  
269:22 277:12 318:19  
331:20,21
- sidelined** 122:3
- sides** 192:10,22 249:19
- signal** 81:6 234:13
- signal** 327:8
- signed** 152:16 278:10  
387:7
- significance** 159:20  
234:12
- significant** 18:14,16  
113:14 139:13 151:17  
189:14 226:3 242:4  
254:4 283:20 323:4
- significantly** 226:7  
303:22
- signs** 87:21
- Silicon** 299:3
- Silk** 273:18
- silo** 49:22 50:5
- siloed** 49:16
- Silver** 1:11,11 5:3
- similar** 34:13 51:15  
106:6 117:4 179:11  
235:20,20 340:12
- simple** 52:11 83:6  
246:1 395:10
- simplified** 75:22
- simply** 254:15
- Simultaneous** 207:14
- simultaneously** 97:4
- single** 61:9 148:1  
220:16 247:16 394:12
- singling** 136:11
- sir** 209:21 263:22  
297:18 301:13 313:21  
388:14 390:11,19  
392:5
- sit** 25:10 28:1 85:2  
242:1,2 250:16  
258:15 286:15,20
- site** 37:4,17 38:2,8 39:2  
41:6,10 42:14,14,15  
43:12,14,18,20 52:3  
53:19 54:13
- sited** 97:1
- sites** 38:14 41:20 42:12  
42:17,20,21 45:16  
46:3 51:15 54:22  
104:8,10
- siting** 104:13 108:1  
110:1 140:12
- sitting** 8:11 13:5 107:15  
231:12 249:18 296:11
- situation** 22:10 47:2  
81:13 358:8 373:8  
381:4
- situations** 69:14
- six** 12:17 73:4,9 83:22  
143:8 302:10 330:8  
337:22 345:14 347:5  
352:22 361:22 362:6
- size** 150:16 176:19  
201:10 215:9 226:4  
290:21 375:9

- skills** 371:13  
**skip** 101:1 221:1  
**skipped** 207:9  
**sky** 165:19  
**slide** 101:6 113:1  
150:10 152:2 155:6  
156:14 158:19 166:10  
169:7,9,10 190:8  
207:8 210:2,5 214:12  
234:3 236:15 238:6  
239:11 270:6 331:17  
**slides** 233:3,18,22  
323:22  
**slight** 173:7 311:18  
**slightest** 164:13  
**slightly** 42:22 162:4  
**slow** 32:15 54:3 200:19  
355:16,20 356:13,13  
400:2  
**slower** 42:22  
**small** 14:14 110:19  
120:21 215:8 216:22  
221:17 248:15 336:1  
**smaller** 117:20 136:7,7  
176:22 192:5 202:17  
202:19  
**smart** 283:7 296:11  
**smarter** 285:3  
**smells** 60:21  
**Smith** 371:5  
**smolt** 253:7  
**smoothly** 107:18  
**Snake** 160:14 171:11  
177:6 179:13 181:11  
190:11 236:1  
**snapper** 91:3,3,4  
119:16  
**snow** 194:9,10,14 195:6  
195:10 265:14 266:7  
**snowpack** 194:8,13  
197:2,8 198:1 208:6,6  
208:10 214:18  
**so-called** 107:8  
**soak** 216:16 224:18  
**soaking** 197:9  
**social** 65:1 73:12 95:16  
96:6 101:15 104:2  
114:7 115:10 238:3  
**sockeye** 160:14 198:11  
198:13,15,20 199:4  
**soda** 180:13  
**software** 50:3  
**soils** 218:5  
**sold** 11:4 89:8,9  
**solution** 228:22  
**solutions** 15:10 17:9  
34:9 66:16 82:18  
193:5 388:5
- solve** 70:17 193:8 196:2  
205:15 219:3 220:20  
258:2 297:6 366:3  
371:2 381:22  
**solved** 297:11  
**solving** 193:3  
**somebody** 24:11 33:3  
54:9 79:13 131:1  
135:19 219:1 256:7  
302:2 307:9 316:18  
365:7 368:18 377:6  
**somewhat** 51:6 157:22  
289:4 354:15 376:7  
**sonar** 301:1 305:1  
**sonars** 303:20  
**sons** 322:11  
**soon** 8:12 193:22  
203:17 240:5 277:8  
277:18 320:18  
**sooner** 362:9  
**sorry** 9:10 11:14 57:7  
60:12 87:6 167:4  
169:17 173:3 242:20  
330:11 345:10 390:7  
**sort** 16:18 29:18 38:7  
70:22 89:14 99:13  
101:22 103:3,15  
104:1 109:14 114:7,7  
114:11 115:5 117:22  
119:4 123:1 141:2  
143:14 145:13,16,17  
147:14 149:15 150:5  
155:8 158:21 159:9  
160:18,20 165:17,19  
174:3 230:10 231:17  
269:15 270:2 278:4  
280:17,18,19 281:10  
285:7 287:13 292:11  
298:10 301:4,6,7  
313:9 317:6,18  
326:10 340:14 343:1  
350:6 370:6 375:5  
378:13 395:19 397:8  
**sorting** 201:7  
**sorts** 140:19 271:13  
272:1 308:5 324:6  
**sound** 369:9 382:1  
**sounded** 245:22  
**sounds** 61:2 144:14  
228:12 229:14 243:6  
343:11 355:4  
**source** 79:16 316:5  
**sources** 96:7 97:16  
140:11 214:5 219:2  
340:15 383:14  
**sourcing** 391:9  
**south** 9:17 88:12  
265:15
- Southeast** 42:19,20  
**southern** 145:18 267:5  
**Southtown** 265:11  
**Southwest** 43:6  
**sovereign** 154:19 156:5  
**soy** 180:4  
**Soybean** 117:10  
**soybeans** 180:8  
**space** 114:8 367:15  
**span** 325:13  
**sparked** 215:2 224:2  
**spatial** 111:15,17  
173:14  
**spawned** 111:22  
**speak** 11:22 13:18,20  
13:21 26:7 58:11  
185:15 238:5 243:21  
245:14 259:16 263:15  
303:6 377:22 383:20  
395:15  
**speaker** 332:18  
**speakers** 58:15  
**speaking** 96:21 207:14  
226:7 233:11 301:5  
365:21 370:14 388:16  
**special** 89:3 293:9  
**Specialist** 2:17  
**species** 18:9 20:2 33:9  
36:18 38:16 40:4 41:8  
44:3 55:13 78:19,20  
92:14 117:16 145:6  
145:10,11,13,21  
146:3,5 152:6 159:6  
159:11 161:15 164:12  
166:21 170:6 172:17  
183:5 190:15 196:12  
211:6 227:19 230:5  
232:18 237:10,17,18  
238:11,21 239:6,18  
244:13 261:16 308:2  
377:10 378:13 384:17  
**species'** 303:11  
**specific** 38:15 39:11  
40:18 41:15 44:9 46:5  
112:7 132:4 232:9,18  
238:6,21 240:2  
241:14 278:13 351:5  
353:3 354:19 374:3  
385:6 388:15 397:4  
401:2,9,13  
**specifically** 19:14 32:8  
44:18 77:9 234:21  
274:12 343:18 344:6  
353:11 355:9 373:2  
**specificity** 350:22  
**specifics** 282:20 377:7  
**spectrum** 5:16 91:20  
**speed** 255:18 356:17
- speeding** 355:22  
**speeds** 382:9  
**spend** 10:9 241:18  
304:8 397:17 399:9  
**spending** 211:19 244:3  
330:21  
**spent** 14:13 15:2 77:8  
126:22 202:21 221:13  
267:22  
**spill** 76:16 373:11  
**spin** 82:10 200:17  
**spine** 244:12  
**spinning** 200:17  
**spinoffs** 314:11  
**spiritual** 234:14 254:2  
**split** 334:22  
**Spokane** 171:14  
**sponsorship** 9:22  
**sport** 176:8 252:3 254:3  
**Sportfishing** 2:5 6:14  
**spot** 204:1  
**spots** 33:14  
**spray** 201:11  
**spread** 211:1  
**Spring** 1:11,11 5:3  
**sprinkler** 218:15  
**sprinklers** 205:3 207:22  
**SR** 2:1  
**SSC** 10:9  
**SSCs** 59:5  
**stacked** 199:17  
**staff** 2:12 16:17 77:8  
144:11 148:5 233:4  
251:4  
**staffing** 110:11  
**stages** 195:18  
**stakeholder** 111:19  
113:13 154:16 155:8  
156:6,10 241:4  
**stakeholders** 35:10  
63:2 136:8 149:19  
154:21 155:16 156:11  
176:2 241:10,22  
252:15 258:4 259:15  
355:21 389:7,16  
391:17  
**stakeholding** 391:12  
**stalled** 30:4  
**stand** 94:21 98:19  
128:13 142:16 285:7  
**standard** 85:16,18  
123:5 216:3 228:4  
401:5  
**standards** 123:12,14  
136:19,21 137:10,13  
137:16,19 393:8,11  
393:21 398:4 402:16  
**standing** 379:9

- standout** 296:5  
**standpoint** 226:2  
**stands** 128:7  
**Star** 125:21  
**start** 5:21 17:8 64:22  
65:12 67:3 68:9,18  
102:21 108:4 120:21  
148:8 150:10 156:20  
157:2 191:17 198:21  
209:16,17 239:3,8,9  
240:5 242:17 249:16  
260:22 261:13 289:8  
295:1 301:7 321:9  
347:14 389:16,17  
398:12  
**started** 36:2 37:15 42:9  
44:22 59:8 63:19  
66:22 72:3 93:17  
117:7 150:9 155:7  
156:8 172:13 191:11  
192:1,3,9 193:4,21  
194:5 195:14 196:1,2  
218:9 221:17 267:17  
321:22 350:7 364:12  
**starting** 16:4 46:12  
65:19 66:22 73:14  
107:21 121:10 205:21  
236:18 237:9 260:21  
341:5  
**state** 10:13 65:22 78:15  
101:20,22 103:8  
107:7,16 111:22  
133:2 134:8,9,15,18  
143:16,17 144:6,7  
155:14 156:11 179:14  
187:4,12,13 188:8,9  
189:1 190:21 191:12  
192:18 194:21 205:10  
212:5,6,7,10,13,17  
215:4,11 218:14  
250:13 297:21 308:9  
319:9 321:21 365:14  
377:10 396:15 400:11  
**stated** 399:14  
**statement** 27:13 30:9  
104:4 346:21 348:15  
**states** 1:16,20 2:2,3 6:1  
6:4 7:3 11:16 65:16  
66:13 85:16 87:2  
107:2 154:17 163:9  
177:5,20 179:2 180:4  
188:5,21 189:3,10  
190:1 191:18 196:5  
197:18 202:15 208:3  
209:6,11 212:21  
227:3 311:8 312:22  
315:3 395:8 396:13  
**static** 359:1
- statistic** 279:12 280:22  
288:22  
**statistics** 279:14 289:1  
350:16  
**status** 39:18 48:22 49:1  
49:2 159:2 160:10  
173:5,11 174:6  
238:15 273:5 274:8  
**statutorily** 362:12  
**stay** 246:22 271:12  
381:12  
**staying** 400:16,21  
**steady** 85:22 304:7  
311:17  
**steelhead** 33:9,22  
195:17 203:9,14  
204:4 206:7,12  
232:19,21 233:1  
234:13,15 235:5  
236:12 261:18  
**steelheads** 160:8  
**steep** 283:4  
**steer** 128:1  
**stem** 198:6  
**stems** 240:12  
**step** 94:10 98:13 105:2  
119:1 128:10 130:6  
146:22 184:22 255:12  
256:3 278:5  
**stepped** 228:12  
**steps** 36:11 95:7  
236:16 285:4 396:2  
**stewards** 181:3  
**stewardship** 107:19  
**stick** 165:22 190:16  
402:13  
**sticking** 229:13 368:9  
**sticky** 242:13  
**stimulate** 139:3 352:14  
**stirred** 221:5  
**stock** 23:2 49:2 75:11  
159:11 160:17 162:11  
271:17 285:22 291:8  
301:3 317:4,18,21  
351:18 397:4 400:19  
**stocks** 49:1 151:15,18  
151:18,19 152:12,13  
153:4,4,5,9 157:5  
158:7,9 159:3,12,17  
159:19,21 160:5,13  
162:14,15 168:12  
188:4 232:15 235:2  
283:11 291:2 293:17  
311:12  
**stone** 339:19 372:8  
**stop** 34:15 69:9 112:17  
161:1 185:7 204:18  
360:18 384:12
- stopping** 132:5  
**stops** 75:10  
**storage** 191:7 194:13  
197:12,14 208:2  
213:4 214:16 217:4,4  
**store** 87:20  
**stories** 350:17  
**storm** 294:13,14 346:16  
**storms** 280:8 370:16  
**stormwater** 219:15,19  
220:17  
**story** 75:12,17 82:7,9  
85:11 88:19 89:10,15  
89:20 90:5 114:13,14  
182:16 265:7 271:3  
329:22  
**storyline** 265:10  
**storytelling** 115:10  
**stowed** 316:4  
**straight** 52:7 395:4  
**straighten** 116:13  
**strategic** 95:1 125:10  
235:16 269:12 327:14  
**strategies** 381:14  
**strategy** 37:2 291:11  
**stream** 57:17 59:5  
**streamed** 56:21  
**streaming** 59:9  
**streamline** 20:8 22:5  
102:16 105:5  
**streamlined** 102:10  
**streamlining** 99:15  
102:8 103:8 104:15  
107:13 110:13 323:9  
**streams** 251:20  
**street** 137:13 355:4  
**strength** 75:10  
**strengthened** 381:15  
**Strike** 249:10  
**strikes** 78:2 325:3,3  
**striped** 144:22 145:8  
146:9  
**striper** 332:7  
**striving** 245:5  
**strong** 59:12 98:2  
117:14 171:7 218:2  
327:8 364:13,17,18  
**stronger** 131:19 309:3  
392:18 396:8,11  
**struck** 34:13 355:6  
386:12  
**structure** 40:5 50:6  
55:1 173:14 291:7  
**structured** 46:7 377:2  
**structuring** 174:4  
**struggle** 114:15 153:19  
**struggling** 345:13  
**student** 221:13
- students** 38:8 39:17  
**studies** 103:18  
**study** 105:11 171:1  
267:12 311:3 318:20  
**studying** 268:8  
**stuff** 29:9 50:15 51:12  
59:5,9 88:14 125:4,22  
129:4 134:4 138:9  
139:10 210:21 213:10  
213:11 222:2 230:15  
257:2 275:4 310:10  
310:17 318:20 349:5  
355:19 356:19,22  
361:11 370:3 376:3  
386:16 387:3 398:8  
**surgeon** 144:21 145:9  
146:10  
**sub-seasonal** 294:3  
**subcommittee** 4:14,17  
6:18,19 10:21 93:5  
99:5 258:13 259:22  
260:3 333:16 335:6  
335:21,22 336:19,21  
337:5 338:3  
**subcommittees** 12:17  
12:19 93:3 333:11  
335:19 336:16 337:7  
**subgroups** 238:7  
**subject** 56:4 105:20  
106:3 244:7  
**submarine** 268:5 292:2  
292:3  
**submission** 284:13,16  
327:15  
**submitting** 135:5  
**subscribed** 62:20  
**subset** 241:13  
**subsidies** 323:4  
**subsistencies** 227:13  
**substantial** 84:21  
170:19  
**substantially** 289:14  
**subsurface** 195:20  
202:12  
**subtle** 18:2,18  
**success** 112:5 142:22  
157:13,15,20 165:9  
226:1 235:6 236:5  
253:2 284:5  
**successful** 65:15 76:21  
84:5 202:2  
**sudden** 191:9 371:3  
387:7  
**suffering** 214:13  
308:14 309:6  
**suggested** 369:15  
**suggesting** 32:3  
**suggestion** 59:13 92:22

133:11 344:10 349:17  
351:9,14  
**suggestions** 112:14  
352:2  
**suit** 129:15  
**suite** 277:9  
**suites** 349:12 385:5  
**Suitland** 292:16  
**summarize** 162:2  
**summarizes** 342:19  
**summary** 334:10 335:4  
337:14,21 338:9,16  
339:3,9 342:15  
345:16,19 377:1  
403:5  
**summer** 211:12  
**summers** 195:4  
**sunflowers** 207:20  
**super** 13:11 256:15  
327:10  
**supermarkets** 119:11  
**superpower** 273:5  
**supplement** 71:12  
**supplemental** 327:18  
**supply** 64:12,14 65:3  
65:18 85:22 91:20  
92:2 94:14 95:22  
96:13 97:17,21  
119:19 191:9 195:5  
208:13  
**support** 11:10 65:19  
67:15 72:6,17 76:1  
77:17 96:11 103:1  
140:20 142:12 148:6  
158:6 174:16 197:20  
212:8,12 215:12  
226:12 240:18,18  
261:5 278:15 284:12  
285:8 318:17 320:4  
323:6 324:2 327:9  
384:2 388:8,13  
**supported** 222:17  
234:8 326:16  
**supporter** 15:9  
**supporting** 18:10 23:22  
72:12 125:10 175:4  
240:1 243:14  
**supportive** 15:22  
239:21  
**supports** 72:12 117:12  
140:17  
**supposed** 148:10  
**supposedly** 319:22  
**supremacy** 257:8  
**surface** 197:13 202:14  
217:4 219:19  
**surfers** 39:4  
**surfing** 40:20

**surge** 346:16  
**surplus** 231:8,9  
**surprise** 15:8 191:1  
**surprised** 38:7 112:22  
126:21 133:15 138:4  
**surprisingly** 321:17  
**survey** 37:18 40:1  
44:19 45:1 48:15 50:9  
75:6  
**surveys** 22:15  
**survival** 193:9  
**survive** 193:11,11,12  
193:13,17  
**survives** 205:18 212:3  
**suspect** 170:16 365:5  
**suspicion** 59:8  
**sustain** 88:6  
**sustainability** 7:8 18:4  
18:7 20:18 21:3 79:12  
87:19 94:13 122:21  
**sustainable** 10:3 62:2  
63:12,13 64:10 65:3  
65:10,16 69:15 72:15  
74:14 77:15 121:18  
128:11 152:13 159:14  
172:8 207:2 280:16  
325:21 329:5,6  
**sustainably** 84:18 85:7  
97:1 281:17 286:1  
**sustained** 252:3  
**swearing** 267:3  
**swift** 294:18  
**swiftly** 287:11  
**swim** 205:5  
**swimmers** 39:10  
**switched** 191:10,14  
**sympathetic** 34:1  
**sympathize** 309:6  
**sync** 259:9  
**system** 9:4,5 15:9 29:5  
29:10 42:4 61:1 81:3  
110:3 152:1,9,18,21  
152:22 153:2,16,21  
154:5,7,18 155:19  
157:6,13 158:2,11  
159:4 162:13 165:2  
168:18 169:21 172:7  
177:10 178:7,8 179:8  
179:17,22 180:10  
181:11 188:4,12  
190:9,14 191:2  
192:21 195:8,18  
199:1,6 201:3,5,6  
203:8 204:22 205:1  
206:14 211:5 214:2  
216:21 219:6 223:13  
225:7 226:19,20  
227:21 275:7,22

346:3 384:2 386:11  
393:11 398:15 400:10  
400:12,14  
**systemic** 349:21  
**systems** 153:22 156:3  
169:22 197:4,6 203:4  
204:10 218:16 226:14  
226:15,16 269:19  
276:1 383:6 385:18  
385:21 386:10 387:19

---

**T**


---

**table** 5:19 12:5 63:19  
64:6 70:19 80:15  
170:22 171:15 174:18  
175:15 176:2 180:18  
185:19 228:15 232:3  
234:19 238:2,4 242:6  
249:15 250:1,14  
331:4 402:2  
**tables** 148:22  
**tablet** 40:12,13,13  
43:20  
**tackle** 163:3  
**tad** 147:3  
**tagged** 203:15  
**tagging** 41:4,7  
**tail** 200:20  
**tailor** 21:15  
**takeaway** 101:5  
**taken** 13:17 15:14  
20:12 26:8 106:14  
138:8 232:16 353:6  
382:5  
**taker** 328:17  
**takes** 42:2 54:2 179:5  
278:14 360:9 382:14  
382:17  
**talk** 7:12 12:8 14:10  
15:11 19:13 21:12  
29:19 35:11 65:19  
76:5 78:10 84:12  
86:15 90:12 94:12,21  
95:10 99:1 114:20  
121:17 122:20 123:22  
125:14 147:8 153:12  
155:17 158:21 170:7  
173:13 176:11 187:1  
207:12 245:12 248:7  
252:5 259:14,22  
263:10 268:22 269:9  
277:2 282:16 304:17  
312:2 355:8,15  
376:14 397:6 401:7  
**talked** 21:21 23:17  
26:13,17 58:6 88:1  
101:7 110:12 125:4  
126:5,8,9 140:10

141:6 149:10 161:3  
176:1 188:3 197:16  
208:19 229:9 237:12  
245:10 286:12 289:13  
370:22 379:19 383:10  
387:6 391:2,4,10,16  
**talking** 34:22 40:10  
44:19 63:15 66:20  
71:10 79:18 84:4 90:9  
91:13 120:15 124:18  
150:10 153:14 154:17  
159:9 160:20 161:15  
161:16 168:8 180:17  
187:18 191:7,8  
192:13,16 205:13  
222:4 232:4 241:9  
285:20 299:13 300:8  
312:21 320:12,20  
330:22 331:18 347:20  
349:21,22 353:11  
355:13,18,19,22  
357:4,17,21 368:17  
375:9 379:3 386:16  
388:18 402:6  
**talks** 221:21 233:22  
278:1,4 317:13  
387:16  
**tamper** 74:19  
**tangent** 242:21  
**tank** 371:14  
**tap** 79:19  
**tapping** 140:13  
**targeted** 186:2 289:12  
305:9  
**targeting** 186:2 273:22  
**targets** 157:18 181:16  
218:18,19  
**task** 4:16 12:9,17 24:10  
58:17 147:19,22  
148:6 149:3,13,18  
150:3,8,13 155:7  
156:10,18 170:14  
175:6,14 234:21  
238:8 239:2 240:15  
241:13,16,19 245:11  
247:14 248:13,17,19  
248:22 249:21 250:7  
255:1 256:12 259:5  
259:10 291:18,20  
329:21 337:18 338:3  
338:11,17 341:17  
346:6 355:8 356:21  
359:13 364:7,20  
367:7,8 369:6 377:3  
380:14,15 381:2,13  
**tasked** 149:5 351:20  
366:7  
**Taskforce** 4:9

- tasking** 379:2  
**tasks** 38:14,19 40:4  
 45:2 334:1 337:22  
 339:15 341:16,21  
 342:6,18 345:15,20  
 347:6 352:20,21  
 353:14 354:7 361:8  
 363:3 376:21  
**taught** 269:4  
**teaching** 187:21  
**team** 68:17 80:8 188:3  
 197:21 206:11,12  
 248:15 263:15 283:15  
 284:6 286:7 302:3  
**teams** 238:11,22  
**Teanaway** 215:14  
**tease** 51:8  
**technical** 33:18 200:13  
**technically** 236:12  
**techniques** 305:4  
**technologies** 57:11  
 91:18 92:9,20 301:2  
 304:15 341:6  
**technology** 37:10,11  
 92:3,11 103:6 109:15  
 201:8,22 220:19  
 223:12 228:14 269:18  
 269:19 270:8,18  
 298:4 299:4,22  
 300:14,17,19 304:10  
 305:7 313:11 317:4,7  
**teeing** 298:10  
**teenager** 221:6  
**Tehan** 148:5 249:5  
**teleconference** 56:15  
 56:20  
**telephone** 149:2  
**tell** 20:14 57:4 75:17  
 85:1,5,22 89:10,14,19  
 90:5 121:3 182:11  
 223:22 230:21 263:6  
 278:16 308:9 309:1  
 329:3 350:17  
**telling** 74:6 75:12 82:7  
 88:19 114:13,13  
 187:21 230:1  
**temperature** 194:11  
**temperatures** 225:1  
**template** 238:13 254:7  
**ten** 113:21 123:4  
 200:12  
**ten-year** 208:21  
**tend** 18:21 153:7  
 169:19 173:10,13  
**tends** 151:7 152:5  
 173:22,22  
**tenor** 30:16  
**tent** 118:1
- tenure** 106:21 135:11  
 139:6  
**term** 21:2 30:20 37:7  
 53:20 65:3 103:1  
 109:14 166:1,8,22  
 223:5 294:10,20  
 314:4 346:8,9 357:13  
 357:13 394:5  
**terminals** 219:16  
**termining** 27:15 246:21  
 258:9  
**terms** 27:18 28:3,5 35:2  
 53:18 60:21 64:11,14  
 64:21 65:15,18 67:4  
 68:12 69:10 80:7 86:9  
 92:1 95:14,16 108:1  
 108:10 110:22 114:5  
 126:15 135:21 136:16  
 138:10 141:13 142:3  
 143:4,6,14,18,20  
 144:2 150:18 154:6  
 156:12 157:8,15  
 160:11,21 162:9  
 169:19 171:6 236:21  
 259:4 270:13 271:5  
 271:14,18 272:19  
 281:15 283:6 284:20  
 288:13 291:9,12  
 298:4 300:20,21  
 314:10 315:20 316:3  
 338:10 345:13 346:2  
 346:8,9,15,22 351:16  
 351:18 355:13 376:19  
 377:2,13  
**Terri** 1:12,14 5:11,12  
 8:1 11:18 12:6 52:22  
 83:3 94:9 144:9  
 172:15 186:16 233:10  
 249:4 305:21 331:14  
 334:12 337:17 342:17  
**terrible** 128:5 194:19  
 225:4  
**terrific** 93:12 277:19  
 283:9  
**territory** 365:15  
**test** 45:20 83:22 145:13  
 145:16 201:8  
**testified** 26:4,13  
**testify** 20:11 26:9  
**testimonials** 82:19  
**testimony** 26:11  
**testing** 42:6,7,8 55:21  
 201:5 223:15  
**Teton** 221:7  
**Texas** 14:14,16 299:2  
 350:10 365:13,14  
**text** 67:7 338:4 367:18  
 379:12 386:3
- thankful** 330:2  
**thankfully** 268:1 372:17  
**thanks** 8:1 34:4 35:11  
 46:19 62:5 88:15  
 90:13 93:19 124:16  
 140:6 144:10,15  
 169:3 217:21 220:18  
 221:2,4 258:6 296:8  
 305:10,22 307:12  
 310:1 313:6,7 316:14  
 320:3 321:3 324:18  
 331:14 374:8  
**Thanksgiving** 5:5,6  
 203:6,12  
**theirs** 365:7  
**theory** 320:2 360:11  
**they'd** 197:6 199:17  
 216:2  
**thick** 393:10  
**thinks** 335:12  
**thinned** 113:10  
**thinner** 292:9  
**thinning** 216:11  
**third** 18:11 63:6 84:20  
 87:18 275:11 280:13  
 285:13 344:14 382:3  
**third-world** 370:18  
**Thom** 3:17 4:10 147:17  
 149:8,9 150:1 161:11  
 162:1,9 164:19 167:4  
 168:5 169:16 171:4  
 173:6 262:18  
**thought** 33:2 35:8  
 54:21 58:6 81:1  
 115:17 119:1 124:4  
 142:19 143:3 207:8  
 215:3 222:21 288:2  
 299:15 300:4 333:13  
 352:6 353:5 381:5  
 391:20 402:5  
**thoughtful** 134:16  
**thoughts** 60:6 122:19  
 128:15 133:16 334:14  
 335:3 353:5 363:1,14  
**thousands** 308:16  
**threatened** 159:5  
**three** 12:17 17:16 18:1  
 35:6,17 39:20 49:10  
 87:16 103:16 108:22  
 109:5 117:5 126:11  
 144:12 194:2 195:18  
 199:3 210:13 211:1  
 246:7 264:15 267:19  
 275:2 276:8 284:9  
 343:3,4 352:22  
 370:17 375:6 377:9  
 377:19 381:19  
**threw** 363:6
- thrive** 211:14  
**thriving** 286:2  
**throw** 69:19 210:19  
 312:8  
**throwing** 366:19  
**thrown** 13:14 92:16,17  
 383:21 395:18 398:15  
**thumb** 380:17  
**Thunder** 281:1  
**Thursday** 25:9 119:18  
 208:16  
**ticking** 352:12  
**tie** 38:4 257:9 300:3  
 342:13 343:1 351:14  
**tied** 178:2 347:2 351:19  
**Tieton** 221:9  
**Tim** 8:9 262:20  
**timber** 215:7  
**timeline** 25:20 27:3  
**timelines** 19:19  
**timeliness** 300:21  
**times** 15:17 26:13  
 29:17 49:10 53:1  
 88:10 101:7 138:18  
 197:6 211:15 251:13  
 374:20  
**timing** 233:11  
**Timothy** 2:14 4:13  
**tired** 92:15,17  
**title** 7:18 348:3 349:13  
**today** 7:21 8:8 11:20  
 12:2,8,9 13:18,20  
 14:12 19:14 24:9,22  
 25:5,8 28:20 29:19  
 34:22 35:12,19 57:11  
 57:15 58:14 62:8  
 63:10 65:12 69:3 93:1  
 95:2 98:5 146:19  
 149:15 154:21 164:15  
 187:2 242:22 247:9  
 249:9 251:14 263:22  
 291:13 306:20 327:22  
 337:2 355:9 374:20  
 377:3 386:8  
**today's** 255:18  
**told** 129:5 176:8 253:9  
 284:18 305:12  
**tomorrow** 8:15 25:9  
 260:4,9 282:12,16  
 303:5,14 304:17  
 335:20 336:10 337:5  
 402:18 403:6  
**tons** 177:21 228:2  
 291:5 311:21  
**Tony** 126:3  
**tool** 66:4 107:16 360:8  
 360:9  
**tools** 62:18 139:1,5

141:20 356:15 359:14  
362:7 366:11 376:5  
381:14 391:1  
**top** 38:4,14 39:7,9 40:4  
40:22 44:3 45:2 83:16  
180:3 188:13 199:17  
226:17 236:18 251:11  
267:20 284:9 360:2  
**TOPHER** 3:12  
**topic** 41:9 52:6 95:12  
146:21 392:13  
**topic-based** 48:20 49:3  
**topics** 40:4 50:1 381:20  
**tops** 180:11,15  
**toss** 146:13  
**tossing** 259:19  
**total** 153:4 157:16  
195:3 218:18 231:1  
**totally** 131:3 231:22  
309:5 353:4 377:7  
**touch** 108:6 208:1  
374:18  
**tough** 145:22 180:22  
216:4 292:12 328:13  
376:5  
**toughest** 46:21 84:5  
**tour** 179:4  
**tourism** 280:19 281:2,7  
289:13  
**tow** 178:11,11 179:21  
**town** 14:15 263:16  
265:10  
**tows** 178:10  
**toxic** 182:3,14  
**Toyotas** 220:4,4  
**traceability** 76:17 88:18  
89:1,15 386:9  
**track** 93:11 171:3  
349:11  
**tracking** 277:6 286:9  
**trade** 23:21 69:14 97:15  
273:15,19 274:1  
282:7 286:16,17  
289:14  
**trademark** 67:8  
**tradeoff** 58:22  
**traditional** 115:5  
220:12 303:19 383:17  
384:1 392:16  
**traditionally** 117:18  
**traffic** 79:4  
**trained** 329:20  
**training** 76:5 83:17  
346:10 401:12  
**trains** 180:8,9  
**trans-shipment** 281:21  
**transcripts** 53:2 54:11  
**transfer** 109:15 110:4

314:17  
**transferred** 52:2  
**transformation** 35:18  
**transition** 8:6 9:3 97:9  
187:17 277:7 298:5  
305:8 314:16  
**transitioning** 16:1  
**transparency** 388:3  
393:20  
**transparent** 387:1,1  
**transportation** 310:13  
**trap** 201:2,19,20  
**trawl** 65:22 359:5  
**trawlers** 10:20  
**treated** 127:15,16  
**treaties** 152:16  
**treatment** 89:3  
**treaty** 152:14 170:17  
230:13,17,20 231:7  
252:18  
**trees** 187:7 215:21  
216:11  
**tremendous** 16:2 58:7  
132:12 322:5,19  
**tremendously** 137:11  
139:11  
**trend** 274:22 280:6  
316:7 400:16  
**trends** 82:3 269:15  
400:14  
**Tri-Cities** 188:16  
**tribal** 170:12 171:1,6,7  
171:10,11,17 172:13  
182:10 192:14 257:8  
**tribe** 171:14 206:17  
**tribes** 152:15 154:19  
156:11 165:7 171:12  
171:14 182:20 230:13  
230:17,20 231:5,7  
250:16 254:2  
**tributaries** 163:15  
176:4 195:7 196:10  
196:11 202:4 206:14  
216:13 222:18  
**tributary** 188:12 204:2  
205:4 217:1  
**trickling** 127:12  
**tried** 75:17 117:6 129:4  
264:3 342:13 363:1  
**trigger** 382:16,17  
**triggers** 103:11 382:13  
**trillion** 273:16 281:22  
282:3  
**trip** 223:22 281:4  
**trouble** 85:5 219:2  
293:18 386:10  
**troubles** 224:12  
**trout** 200:15

**trucks** 325:8  
**trucks'** 179:20  
**true** 85:18 86:12 192:12  
316:1  
**truly** 196:18  
**trust** 31:11 152:14  
185:16 236:9 250:6  
260:21 318:5 328:7  
391:13  
**truth** 329:3  
**try** 10:3 34:8 36:22 50:5  
58:19 59:13 70:17  
85:1 91:1 93:16,19  
105:17 120:14 121:7  
121:16 148:8 154:9  
161:19 164:17 167:7  
171:4 173:6 175:17  
180:22 183:1 228:14  
262:8 328:21 333:4  
333:14 340:7 352:2,3  
352:10 354:1 365:1,2  
402:13  
**trying** 36:6,11,12 37:8  
38:20 43:19 47:8,21  
48:8 52:9 61:14,16  
66:18 75:20 82:18  
85:5,10 89:22 93:10  
105:9 120:17 126:10  
129:8 137:8,16,19  
147:4 149:12 150:17  
152:4 156:1,12,16  
157:20 158:13,15,22  
161:13 162:18,20  
163:3 164:2,6 166:14  
168:17 192:19 224:17  
225:16 227:7 231:12  
231:19,22 232:1  
236:2 239:14 243:15  
247:17 259:9,12  
260:20 266:15 273:9  
288:3 315:19 318:1  
345:20 346:21 356:17  
357:22 364:7 374:9  
374:18 385:8 386:9  
394:16 395:3,16  
**tube** 201:10,11  
**Tuesday** 1:8 119:17  
**tune** 394:2  
**turn** 35:10 42:13 62:3  
70:2 100:12,18 149:6  
237:19 337:8 380:19  
**turned** 16:22 372:3,4  
**turning** 63:21 84:8  
**turtles** 172:21  
**Twelve** 333:5  
**twice** 26:4 368:18  
**twist** 260:9  
**twitchy** 389:18

**two** 36:7 49:10 87:4  
117:5 139:12 141:9  
144:19,19 145:3,13  
147:21 164:14 168:6  
173:9 180:4 194:1,1  
203:17 208:4 212:14  
244:21 250:10 251:9  
263:13 265:2 273:18  
287:12 294:3 297:21  
302:11 305:3 310:4  
312:9 329:18 330:9  
333:13 334:22 336:16  
339:21 343:19 345:18  
346:12 355:13,14  
356:1 358:11 370:17  
370:19 376:3 377:9  
377:19 381:20 385:12  
387:15 389:2  
**Two-minute** 399:21  
**two-part** 177:10  
**two-year** 118:11 234:2  
**tying** 77:2 347:4  
**type** 114:22 122:6  
167:11,13 218:15  
232:9 310:10 311:3  
**types** 46:5 100:17  
125:8 190:4 314:9  
388:5 393:20  
**typical** 178:11  
**typically** 139:16  
**typing** 314:3

---

**U**


---

**U.S.** 1:1 2:1 7:7 9:16  
49:1 65:4,20 68:15  
71:22 85:7 90:20  
91:11 98:12 117:6  
121:18 122:12,22  
128:6,13 144:5 154:3  
157:1 177:12 182:2  
183:16 208:15,17,17  
220:9 281:13,20  
282:2 309:18 314:8  
343:15,22 350:11  
**U.S.'s** 178:16  
**U.S.-** 71:10  
**U.S.-based** 95:7 97:20  
**U.S.-harvested** 69:11  
**U.S.-produced** 66:1  
67:15 76:1  
**UC** 140:22  
**UKMET** 275:12  
**ultimate** 79:13 242:8  
**ultimately** 268:3  
**Umatillas** 206:16  
**umbrella** 241:12  
**un-** 189:1  
**unable** 56:18 89:15

**unanimous** 212:11  
**unavailable** 326:22  
**underfunded** 110:6  
**Underlying** 107:12  
**underneath** 36:10  
 53:14 241:11,14  
**underscores** 31:16  
**understand** 16:5 32:11  
 46:22 47:8,18 48:2,4  
 71:4 74:12 81:18  
 89:13 130:1,10,12  
 142:13,16 146:2  
 166:9 243:15 246:4  
 292:22 296:22 316:7  
 387:9  
**understanding** 17:6  
 142:9 143:8 185:9  
 236:10 242:10,19  
 258:20 296:18  
**undertaken** 233:7  
**undertaking** 35:1 37:15  
**underwater** 276:17  
**underway** 295:4 322:16  
 327:17  
**undoubtedly** 214:3  
**unfair** 324:13  
**unfairly** 324:10  
**unfortunately** 76:22  
 84:18 85:2,13,17 86:3  
 87:19 249:13  
**unified** 117:9,14 134:21  
**uniform** 391:3,5 392:22  
 393:3,3,4,16,21 394:2  
 394:17 395:22  
**unintended** 134:17  
 161:22  
**unique** 61:13 98:9  
 241:15  
**unit** 180:8,9 233:1  
**United** 65:16 66:13  
 85:16 87:2 171:12  
 177:20 179:2 180:4  
 188:21 189:2,10  
 190:1 191:18 196:5  
 197:18 202:15 208:2  
 209:11 212:20 311:8  
 312:22 315:2  
**units** 299:1 303:21  
**universe** 160:19  
**universities** 300:3  
**university** 78:16 105:13  
 110:3 155:14 187:20  
 277:14  
**unmanned** 276:17  
 302:6  
**unnamed** 79:10  
**unofficially** 258:22  
**unworkable** 123:13

**update** 17:20 50:2 61:3  
 62:1 150:5 261:2  
**updated** 61:2 192:3,4  
**updates** 4:7 49:2 62:12  
**upgrade** 277:8  
**uphill** 79:1,7 115:22  
**upper** 151:8 171:11,12  
 180:7 210:14 235:22  
 267:2  
**upper-end** 130:7  
**upping** 67:6  
**upriver** 178:5 231:5  
**upset** 50:16  
**uptake** 194:11  
**urban** 3:10 4:11 147:21  
 149:20 150:21 161:5  
 176:6 183:7 186:10  
 186:22 223:21 234:11  
 240:8 241:9 245:21  
 252:22 258:1 259:14  
 269:3  
**urbanized** 150:21  
**USA** 177:18 220:1  
**USDA** 101:11 114:19  
 123:7,13 129:1,5  
 141:19 142:1  
**use** 49:6,10,11 50:11  
 51:21 54:13 67:11  
 69:5 78:11 99:1  
 105:21 110:6,16  
 111:16 139:3 157:9  
 158:7,18 167:8 174:1  
 205:1 225:10 235:5  
 235:10,13,16 270:18  
 302:6 316:3 334:21  
 341:6 346:14 350:18  
 355:16 359:14 385:20  
 389:20 391:8 393:1  
 397:18,21 401:14  
**useable** 398:9  
**useful** 68:12,13,15 69:8  
 168:16 396:3 399:17  
**useless** 402:17  
**user** 36:7,20 39:3 42:6  
 42:6,8 46:22 47:3,15  
 47:16 55:20 104:11  
**user-centered** 385:17  
 387:17 388:21  
**user-centric** 39:21  
**users** 36:15,21 37:13  
 37:16 40:2,15,16  
 42:15 43:15,18  
 196:14 228:9 234:8  
 386:18 387:18,22  
 388:1 389:4,20  
 390:13  
**uses** 59:10 104:9 108:2  
 386:15

**usually** 58:19 71:22  
 131:1 192:17 195:9  
 202:7 219:3 228:1  
 229:22 252:17,17  
 312:7 371:1  
**utilities** 155:3  
**utilize** 22:19 23:19  
 196:19 331:6 398:2  
**utilized** 66:3,5 342:5

---

**V**


---

**v** 154:3 157:1  
**vague** 396:9,11 398:6  
**valley** 190:2 207:16,17  
 207:19 218:4 299:3  
**valleys** 202:10 216:14  
 216:16,17  
**valuable** 109:13 187:8  
 288:9 293:11  
**value** 31:16,19 79:2  
 102:5 118:2 130:5  
**value-** 92:12  
**value-added** 98:1  
**valued** 177:21  
**values** 237:22  
**Vancouver** 150:22  
 177:17 220:1  
**variables** 359:9,15  
 366:12,19,22  
**varieties** 231:18  
**variety** 45:7 115:12  
 182:21  
**various** 15:16 53:2  
 96:17 104:9 160:5  
 234:8 236:16 238:18  
 240:4 286:9 289:12  
 302:5 335:1 394:10  
**vary** 159:18 385:4  
**varying** 36:19  
**Vast** 1:14  
**vastly** 161:16  
**vector** 299:7  
**vegetation** 363:21  
**vehicles** 276:18 302:6  
**venue** 175:20 358:15  
**venues** 58:3  
**verbalizing** 137:2  
**verification** 67:17  
**versions** 298:6  
**versus** 65:21,22 66:1  
 96:4,4 135:9,12 162:4  
 170:6 346:21 365:18  
**vessel** 22:17 304:12  
**vessels** 177:11 303:20  
**veterinarian** 140:18  
**veterinary** 140:22  
**vetted** 8:16 398:2  
**vetting** 395:14

**VI** 351:8  
**viability** 160:11 360:8  
 360:14  
**viable** 163:13 357:12,17  
 358:3 398:20  
**vibrant** 189:21  
**Vic** 394:6  
**Vice** 1:15 2:10 6:9  
 124:16 135:3 138:7  
 221:1 349:16 385:12  
 386:2,5 387:14  
 388:18 389:9 390:15  
 392:21 396:10  
**videos** 82:18  
**Vietnam** 122:18 128:5  
**view** 40:11 43:20,21  
 44:1 121:12 127:3  
 135:13 181:2 245:13  
 268:7 290:14 359:7  
**viewpoints** 251:4  
**views** 34:8 98:18  
**villages** 215:9  
**Virgin** 343:15,22 344:4  
 350:11 351:1 369:18  
**virtual** 59:10  
**virtually** 50:12 180:8  
**vision** 237:3,4 239:22  
 351:6  
**visit** 292:19 320:19  
**vital** 141:5  
**vocal** 96:14  
**voice** 117:14 121:9  
 134:21 182:22  
**voiced** 106:9,10  
**voices** 176:14  
**volumes** 303:11  
**volunteer** 254:14  
 255:12  
**vote** 138:9 146:16  
 212:11,14 277:17  
 333:21  
**voted** 212:15,16  
**vulnerable** 194:7  
 272:15

---

**W**


---

**wade** 243:9  
**wait** 364:20 378:16  
 382:18  
**waiters** 83:6 84:12  
**waiting** 141:8  
**wake** 70:15 81:16  
**wakes** 371:5  
**Wal-Mart** 92:1  
**walk** 26:10 60:10  
 233:17 334:12 359:12  
 380:19  
**walked** 142:22

**walkthrough** 339:2  
**wall** 161:22 176:19  
 256:19  
**Walmarts** 370:3  
**wanted** 12:12 24:14  
 25:12 26:7 44:13  
 60:13 65:6 69:1,19  
 100:6 120:1,21  
 121:11 122:7 124:17  
 140:15 171:6 182:12  
 193:16 219:10 241:17  
 242:22 248:11,13  
 249:2 261:11 267:8  
 319:3 330:12 332:11  
 345:1 352:5,13  
**wanting** 252:6 387:9  
**wants** 89:6 108:7  
 127:21 144:17 258:21  
 265:11 324:4 326:6  
 335:6 387:3  
**warm** 291:2 378:3,3  
**warmer** 363:15  
**warned** 24:11  
**warning** 399:21  
**wars** 10:16  
**washed** 308:19  
**washes** 363:21  
**washing** 200:18  
**Washington** 15:16,18  
 78:16 101:20 150:22  
 151:13 155:13 177:1  
 177:18 179:14 187:4  
 187:11,12,20 188:8,9  
 190:21 194:21 205:11  
 209:3 212:5,10,13,17  
 215:12 277:1 287:7  
**wasn't** 189:3 214:22  
 218:11 267:7 311:9  
 329:7 340:17 353:11  
 362:16 363:3 370:21  
 375:7 394:20  
**watch** 225:15 400:13  
**watched** 84:15 203:15  
 203:16 272:18  
**watching** 271:21 273:1  
 283:8  
**water** 24:16 112:4  
 143:16 176:7 180:21  
 180:21 188:14 189:2  
 189:3 191:9,19  
 194:15 195:5,19,20  
 196:8,11,12 197:7,8  
 197:13 200:6 202:6,9  
 202:14 207:3 208:4  
 208:13 211:11,13  
 214:16,19 215:22  
 216:14,17,18,19,20  
 217:4 218:2,3,7 219:8

220:13 224:7,18  
 225:4,8,13,17 226:14  
 226:17,17,18 231:13  
 278:6 290:3 292:12  
 297:11 303:8 306:12  
 318:13 323:12 363:15  
 378:3,4,4 401:9  
**waterfront** 181:3  
 219:18 220:15 230:7  
 322:9  
**waters** 101:21,22  
 102:15,17 103:9  
 105:1,9,14 106:15  
 107:9,10,17 134:13  
 134:15,18 139:9,14  
 139:18 141:9 143:7  
 144:6,7,21 145:7  
**watershed** 151:8 182:2  
**waterways** 3:15 225:17  
**wave** 112:6  
**ways** 18:15 19:17 20:7  
 21:4,10 35:21 52:4,9  
 81:11 82:8 139:22  
 140:10 176:3 189:18  
 193:17 196:8,19  
 197:3 202:13 203:2  
 204:12 207:1 213:20  
 224:17 260:19 274:6  
 285:2 288:20 300:1  
 323:15 331:5 348:22  
 374:5 375:6  
**weather** 9:9 265:15  
 271:19 275:9,13,13  
 275:16,19,20 278:6,9  
 278:16 290:12 294:2  
 294:10,10,20,22  
 296:7 306:6,10,11  
 307:3,7 344:3 347:16  
 351:16 353:12 363:10  
 366:5 373:3  
**web** 35:16,18 36:8 55:7  
 68:14 115:4  
**WebEx** 58:2  
**webinars** 258:17  
**website** 35:3 36:14,19  
 37:1,8 39:8 41:12  
 43:8 45:6 47:1,4  
 49:10,17 50:12 52:11  
 53:1,19 54:5,19 60:20  
 148:2 261:13 340:14  
**websites** 36:9,13,18,21  
 37:5,19 45:4 49:6  
 60:19 61:4  
**wedded** 352:17  
**weeds** 76:3 244:1  
**week** 28:2,9 49:11  
 62:22 73:17 114:18  
 119:21 120:5 143:13

144:14 277:1 279:6  
 303:18 340:16 370:16  
**weekly** 62:19,21  
**weeks** 113:20 117:4  
 118:4 127:5 263:13  
 332:17 343:19 370:17  
 370:17  
**Wegmans** 73:8 83:13  
**weigh** 25:21 259:22  
**weighed** 233:18  
**weight** 288:6  
**welcome** 4:2 5:2 8:4  
 25:19 27:8 30:1,13,22  
 44:19,21 88:4 93:13  
 126:2,13 324:17  
**welcoming** 15:21  
**well-educated** 259:1  
**well-intentioned**  
 134:16  
**well-known** 275:11  
**well-spent** 285:1  
**well-steeped** 283:1  
**Wenatchee** 221:11  
**went** 14:19,21 93:21  
 109:17 126:8 148:19  
 190:14 192:19 196:13  
 198:12 199:5 212:6  
 215:18 221:22 232:3  
 241:19 242:11,12,20  
 257:13 262:11 296:12  
 314:3 333:8 342:8  
 354:10,14 361:11  
 383:4 384:4 390:22  
 391:1 403:13  
**weren't** 149:17 230:13  
 329:20 353:15 375:21  
**west** 2:17 3:17 21:21  
 30:2 31:18 32:7,18  
 43:3 78:3 79:3 147:16  
 148:4 149:7 151:16  
 151:20,22 153:7  
 180:11,15 285:16  
 358:10 366:17 374:19  
 376:2 393:12  
**western** 105:22 132:21  
 209:6,11 227:3 290:4  
**wet** 331:21  
**whatever's** 335:8  
**whatnot** 76:21 290:13  
**wheat** 179:18 180:3,5  
**wheel** 363:4  
**whip** 379:17  
**whipped** 74:9  
**White** 16:20  
**who've** 117:18 184:20  
**whoa** 70:16  
**wholeheartedly** 308:14  
**wholesalers** 118:9

**whoosh** 201:5,12,21  
 223:13 253:15  
**whooshed** 253:13  
**Wicker** 102:12 106:5  
 121:10  
**Wicker's** 106:19  
**wicket** 318:3  
**wickets** 242:13  
**wide** 120:11 241:9  
**wild** 23:2 90:10 96:4,19  
 96:20 97:3 116:7  
 121:14 122:13 127:19  
 129:2,10,21 130:5,8  
 157:5,17 158:6 172:8  
 217:13 282:14 285:16  
 311:7,18 314:19  
 315:5 316:3  
**wilderness** 163:12  
**wildlife** 1:16 2:1 6:10  
 9:16 78:17 103:13  
 124:21 133:3 193:11  
 212:3 216:19  
**willing** 113:15 140:3  
 244:19 378:22 389:7  
**willingness** 321:10  
**window** 148:7  
**wine** 190:2  
**winners** 115:9,13  
**winter** 88:8,11 194:16  
 195:1,3  
**wiped** 198:13  
**wish** 77:20 296:15  
 309:7,10 333:22  
**wondered** 169:14 173:3  
**wonderful** 51:11 175:20  
 184:19 309:16 352:8  
 402:21  
**wondering** 132:19  
 228:15 290:15 291:13  
 300:15,16 334:2  
**wood** 180:15  
**woods** 134:11 320:13  
 320:14  
**woody** 216:12  
**word** 59:19 74:17 90:15  
 145:19 167:22 168:2  
 201:13 318:8 331:13  
 344:12,18 345:2  
 381:10  
**worded** 341:22  
**wording** 18:14 394:17  
**words** 18:10,13,16  
 165:19 167:18 208:11  
 308:11 311:9 358:1  
 374:19  
**wordsmith** 345:22  
**worked** 11:4,5 70:6  
 105:11 111:3 114:19

115:10 126:4 129:12  
 136:20 137:7 165:7  
 200:21 215:4 232:4  
 269:1,2 309:20 315:1  
 316:21 339:13 367:12  
 369:6 383:6,8 398:2  
**works** 10:1 29:2 131:20  
 142:3 181:5,12  
 260:18 277:15 369:10  
 371:6 388:10  
**workshop** 361:11  
**world** 2:10 6:17 15:1  
 84:9 109:18 199:13  
 202:2 227:22 253:22  
 273:10 275:8,15  
 277:2 286:19,22  
 287:1 294:22 311:2  
 311:11 315:4,13  
 322:7 375:2  
**world's** 314:6,7  
**worlds** 355:14 356:2  
**worldwide** 122:15  
**worried** 129:16 230:18  
 230:19,20  
**worse** 360:3  
**worst** 195:4 397:16  
**worth** 125:1 179:20  
 253:19 254:4 281:22  
 283:17 287:14 378:10  
 378:10,11  
**worthwhile** 165:15  
**would've** 123:12 127:16  
 195:13  
**wouldn't** 175:15 182:9  
 219:7 357:19  
**wound** 402:7  
**wow** 74:21 91:15  
**wrap** 42:13 180:17  
 183:7 295:19 342:12  
**wrapped** 73:13 295:7  
**write** 379:1  
**writing** 127:13 256:19  
 310:9 323:20 353:10  
 371:22 372:19 390:5  
 394:7  
**written** 98:17 302:15  
 338:4 339:18 386:2  
**wrong** 109:20 131:16  
 308:13 365:16 366:1  
**www.nmfs.noaa.gov**  
 42:14  
**Wyoming** 209:4 222:19

---

**X**

---

**XPRIZE** 114:22

---

**Y**

---

**Yakima** 165:14 188:11

188:20 190:1,18,22  
 191:19 195:8 196:16  
 198:15,16 199:5  
 205:20 206:10,13,16  
 214:1 215:15 221:7  
 221:13 235:19  
**Yakimas** 198:19  
**yardstick** 253:3,7,7,18  
**year** 14:21 35:6 42:1,4  
 42:9,12 64:3,7 66:21  
 79:21 108:20 114:18  
 119:9 124:3 177:21  
 182:15 194:2 197:6  
 203:12,13 208:11  
 214:15 225:8 228:2  
 239:10 252:7,8  
 255:19 264:16 265:5  
 265:8 273:17 278:17  
 278:17 279:15,15,18  
 281:22 284:13 291:6  
 308:17 313:13 354:9  
 400:15,15  
**year's** 125:17  
**year-to-date** 51:1  
**years** 11:3,3 14:9 15:5  
 15:15 16:8 19:1 20:17  
 35:6,17 38:1 52:12  
 64:2 66:9 78:6 92:4  
 98:8,16 99:4 100:15  
 105:5,10,11 106:11  
 117:4,5 123:4 126:5  
 126:12 133:21 136:21  
 139:3 140:21 165:6  
 166:14,15 167:10,11  
 169:1,2 175:22  
 190:15 191:4 192:19  
 192:20 199:3 208:21  
 209:16 211:2 214:15  
 219:6 229:21 251:22  
 253:10 265:7 266:22  
 272:2,10 273:6  
 278:18 289:15 292:7  
 294:3 297:22 317:1  
 317:10 322:1,3,20  
 329:15 331:8 339:22  
 358:12 360:1,10  
 363:9 364:22 370:19  
 376:3 377:19,19  
 378:7 382:14  
**yellow** 75:13 77:12  
**yeoman's** 116:1  
**yield** 343:12  
**yields** 271:16 285:22  
 315:21  
**Yochem** 2:10 6:16,16  
 140:5,6 169:6,6 258:6  
 258:9 335:9  
**York** 215:5

**young** 267:2  
**YouTube** 115:10  
**Yukon** 227:11

---

**Z**

---

**Zealand** 311:9  
**zero** 59:11 212:22  
 280:5  
**zone** 160:19 168:8,14  
 237:12 272:21  
**zones** 217:19

---

**0**

---

**1**

---

**1,000** 270:6,11 373:21  
**1,300** 279:17  
**1,500** 201:13  
**1.5** 228:2  
**1:58** 262:11  
**10** 92:4 111:10 130:18  
 229:5,5 272:10  
 278:18 311:14 329:15  
 360:9 373:20  
**10:22** 93:21  
**10:30** 93:17  
**10:37** 93:22  
**100** 4:8 166:14 167:10  
 169:1 200:1 215:12  
 246:1 281:1 288:16  
 318:17  
**100-year** 214:13,14  
**105** 177:14  
**11:20** 148:10  
**11:34** 148:19  
**11:45** 147:9 148:17  
**11:51** 148:20  
**12** 203:7 333:5  
**120** 200:1  
**13** 154:19 210:22  
 217:12  
**130-** 199:21  
**130-million-dollar**  
 199:10  
**14** 178:9 286:16  
**149** 4:10  
**15** 17:16 105:10 140:21  
 316:2 333:4 360:10  
**15-year** 130:18  
**150** 201:14  
**159** 279:16  
**15th** 97:20 116:19  
 120:3  
**16** 15:4 78:6  
**17** 209:6 227:3 329:19  
**174** 4:10  
**18** 136:20 282:2 327:17  
 328:3

**18,000** 291:5  
**1800s** 202:15 215:20  
**1855** 152:16  
**186** 4:11  
**19** 290:2 328:3  
**190** 321:20  
**1900s** 188:22 198:13  
 215:20  
**1905** 189:1  
**1930s** 184:4  
**1945** 191:5  
**1969** 187:19  
**1972** 86:7  
**1975** 184:5  
**1977** 191:1,14  
**1979** 208:19  
**1980s** 192:6  
**1990** 145:9  
**1990s** 105:12  
**1994** 192:7 208:20

---

**2**

---

**2** 150:10 228:7 341:19  
 384:22  
**2.5** 283:17  
**2:15** 262:5,9  
**2:17** 262:12  
**20** 17:16 36:13 105:10  
 109:19 114:20 190:15  
 219:6 251:22 302:11  
 317:10 322:3 353:2  
 380:11  
**200** 155:15 166:15  
 167:10 169:1 213:16  
 287:14 321:21  
**200-million-dollar**  
 213:7  
**2000s** 106:7  
**2001** 304:22  
**2005** 279:12,21  
**2006** 20:20  
**2009** 196:2  
**2010** 63:19,22 324:22  
**2012** 155:9  
**2013** 212:6  
**2015** 194:20 196:7  
 209:8 341:20  
**2016** 23:13 149:11,17  
 292:3  
**2017** 1:8 5:3 17:19  
 278:17  
**2018** 17:20 43:1 326:12  
**2019** 43:3 327:21  
**2020** 327:15 328:2,14  
**2050** 270:10  
**21** 234:3  
**22** 111:4 222:12  
**23** 11:3 188:4 231:17

232:15  
**233** 4:11  
**24** 153:4 177:21 261:18  
**25** 202:21 252:8 272:2  
 273:6  
**26** 8:11  
**263** 4:13  
**27** 15:15 16:8  
**28** 1:8 156:10 203:9  
 255:1

---

**3**


---

**3** 111:14 152:2 371:17  
 388:19  
**3-5** 111:11  
**3,000** 194:8  
**3:15** 93:4  
**3:18** 333:8  
**3:30** 333:5  
**3:40** 333:9  
**30** 191:4 208:21 209:16  
 211:2 222:12,15  
 251:22 252:8 304:4  
 317:2  
**30,000** 119:20  
**300,000** 211:8  
**32** 266:21  
**333** 4:14  
**35** 4:5 192:20  
**365** 178:14

---

**4**


---

**4** 155:6 346:6 371:18  
 385:8 388:19 401:17  
**40** 20:17 192:19 201:14  
 222:16 304:4  
**40,000** 178:2  
**400** 272:3  
**403** 4:20  
**40th** 64:3  
**45** 209:16 359:2  
**45,000** 228:4  
**48** 11:3

---

**5**


---

**5** 4:2 156:14 169:7,10  
 232:16  
**5:00** 93:4  
**5:01** 402:18  
**5:02** 403:13  
**50** 177:20 212:17 228:4  
 265:7 292:7 311:15  
 371:19  
**50,000** 215:6  
**500,000** 109:4  
**508** 53:19  
**538** 179:20

---

**6**


---

**6** 4:16 158:19 338:3,11  
 338:17 342:8 355:8  
 364:7,20 380:14,16  
 381:2  
**60** 40:15 286:8  
**62** 4:6  
**65** 198:9  
**66** 313:14

---

**7**


---

**7** 4:4 289:3  
**70s** 197:15  
**75** 37:21,22 209:16  
**77** 191:17  
**79** 37:19

---

**8**


---

**8** 322:2  
**8:30** 1:11  
**800,000** 190:13 211:5  
**80s** 197:15 283:4  
 285:17  
**82** 207:16  
**86** 221:16  
**8777** 1:11  
**88,000** 291:5

---

**9**


---

**9** 380:1  
**9,000** 190:16 211:6  
**90** 33:9 311:21  
**90,000** 311:20  
**90s** 152:7  
**94** 4:7  
**95** 66:12 373:5  
**98** 228:8

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This is to certify that the foregoing transcript

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Before: DOC/NOAA

Date: 11-28-17

Place: Silver Spring, MD

was duly recorded and accurately transcribed under  
my direction; further, that said transcript is a  
true and accurate record of the proceedings.

*Neal R Gross*

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Court Reporter

**NEAL R. GROSS**

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