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ALL COUNCIL FEDERAL SUBSISTENCE  
REGIONAL ADVISORY COUNCIL MEETING

PUBLIC MEETING

VOLUME I

Egan Convention Center  
Anchorage, Alaska  
March 7, 2016  
8:30 a.m.

COUNCIL MEMBERS PRESENT:

Molly Chythlook, Chair  
Jack Reakoff, Chair

All Council Coordinator, Carl Johnson

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

2  
3 (Anchorage, Alaska - 03/07/2016)

4  
5 (On record)

6  
7 MADAME CHAIR CHYTHLOOK: Okay,  
8 everybody. Good morning. We're going to be getting --  
9 get started here. I want to welcome each and every one  
10 of you. This is very overwhelming. I'm used to just  
11 my little crowd of Regional Advisory Group, but this is  
12 very, very amazing. This is the very first time I've  
13 ever been involved with this, so I want to welcome each  
14 one of you. I'm glad that everyone got here safe. And  
15 we'll just wing it. Jack and I will try our best to  
16 keep everything in order and going. So thank you so  
17 much.

18  
19 If we can all stand up, we're going to  
20 have invocation. Mary Mills -- or Mary Mills will have  
21 our invocation.

22  
23 MS. MILLS: Thank you.

24  
25 (Invocation)

26  
27 CHAIRMAN REAKOFF: So on this agenda we  
28 have opening remarks. And we have the Honorable Ethan  
29 Berkowitz, the Mayor of Anchorage, is going to speak to  
30 us this morning.

31  
32 Welcome, Ethan.

33  
34 MR. BERKOWITZ: Good morning,  
35 everybody. Well, welcome to Anchorage. We're the  
36 largest village in the state.

37  
38 (Laughter)

39  
40 MR. BERKOWITZ: And thank you for  
41 making us this much bigger today. It's an honor to be  
42 able to greet a subsistence gathering like this. And  
43 for me, this is a special privilege. When I was in the  
44 legislature, we fought hard for subsistence rights.  
45 We're going to continue to do that. But to see the  
46 people that are living the subsistence way, which  
47 enriches everybody in this state. All of us, whether  
48 we're in the cities or in the villages and in between.  
49 It's a great honor.

50

1                   And so I encourage you to have a  
2 productive session here. Find ways to continue to  
3 gather and live the lifestyle that means so much to all  
4 Alaskans, because it defines who we are and what we're  
5 best about.

6  
7                   So thank you.

8  
9                   Welcome.

10  
11                  And if we can help in any way -- enjoy.

12  
13                  (Applause)

14  
15                  CHAIRMAN REAKOFF: Thank you, Mr.  
16 Mayor. So then we got Federal Subsistence Board member  
17 Tony Christiansen is also going to address the meeting.

18  
19                  Tony.

20  
21                  MR. CHRISTIANSEN: Thank you. Good  
22 morning, everybody. My name is Anthony Christiansen.  
23 I'd first like to thank whoever thought I was a keynote  
24 speaker.

25  
26                  Thank you for the honor.

27  
28                  (Laughter)

29  
30                  MR. CHRISTIANSEN: Thank you, Mr.  
31 Larson, for giving me a chance to get up here and speak  
32 at the Federal Subsistence Board meeting. To see the  
33 people who I'm supposed to represent as a Rural Board  
34 member and I try to do my best is that a -- a little  
35 background for myself.

36  
37                  I'm from the community of Hydaburg,  
38 located in the Southeast Alaska, about 45 air miles  
39 west of Ketchikan. And there's about 410 people in our  
40 community, about 90 percent ethnic Haida. And we have  
41 a largely intact relationship with the environment, you  
42 know, and we call it subsistence. A lot of us are  
43 calling it our lifestyle, but we have a real solid  
44 foundation built around resources that are very  
45 plentiful in our area. And so we really appreciate  
46 having that relationship with the land and the sea.

47  
48                  And as I tried to think of a speech  
49 that you get up and tell like-minded individuals who  
50 are here to protect and to work on sound management

1 practices for the most vital resource that this state  
2 has and that's our human resource. And I say that  
3 because what we're trying to manage is the activity of  
4 the people as they engage in resource extraction,  
5 subsistence, gathering our foods, our way of life. And  
6 trying to bring what expertise I have in it to the  
7 table at the highest level.

8

9                   And the only expertise I have is that  
10 I'm an active subsister. I've worked for several years  
11 trying to engage in the resource. Trying to teach my  
12 nephews what I was taught by my grandfather, which was  
13 to value the resource above all. Anything else was to  
14 have respect for the resources that we survive on. The  
15 resources that define who we are cultural per area that  
16 we live in. And that's been part of the background  
17 that I have.

18

19                   I've worked at the Tribal -- in the  
20 Tribal Natural Resource Program for the last 16 years  
21 in Hydaburg. And I'm also the mayor there for the last  
22 10. And the big part of our situation and issues in  
23 the community is trying to protect our resources from a  
24 plethora of things that can really damage that  
25 relationship, whether it's from contamination or over-  
26 harvesting or commercialization or different industries  
27 with different uses and how do we apply management to  
28 those resources and bring everybody on the same page  
29 forward so that we can have really good-lasting  
30 relationships with each other, as well as with the  
31 resources.

32

33                   And I don't know why I'm nervous. I  
34 get up and speak in public all the time. My legs  
35 shaking like a poodle up here, so apologize, you guys.  
36 I really like take this to heart and I don't want to be  
37 getting all off beat here.

38

39                   To me, the -- there's been a lot of  
40 challenges with this position because I want to make  
41 sure that I represent the communities and the people of  
42 the state of Alaska. The rural users of the group.  
43 And, you know, I was fortunate to get this seat through  
44 the two rural seats that they added to the Board back  
45 in -- a couple of years back. They wanted to come fix  
46 the problem and I guess I was supposed to be part of  
47 the fix. And so I've done what I can do to try to  
48 represent the RACs as they put information forward.

49

50                   And I think us, as addition to the

1 Board and the feedback we receive from the people in  
2 the office and that have sit on the Board, is that it's  
3 changed the dynamic of the Board enough to see some  
4 positive changes for some of the proposals that we get  
5 coming forward. And it's been a challenge for me not  
6 living in your area and knowing, because we're all  
7 culturally different even though we have the same  
8 relationship to the land the resources. And trying to  
9 put myself in each of your shoes.

10

11                   And as we work through the system and  
12 we get the proposals and we get this information, the  
13 best information we've been able to use myself,  
14 personally as a Board member, is the information that's  
15 passed forward from the Regional Advisory Boards. And  
16 one of the tools that I've found is the best is when  
17 they wanted to restructure how we did it was giving  
18 deference to the RAC in the taking of fish and  
19 wildlife. And I think that is the biggest and the key  
20 word that looking forward into this program and what  
21 the future looks like, with the climate we know that is  
22 coming, with the lack of funding and the lack of  
23 manpower that's going to be out there because of the  
24 funding, the Regional Advisory Councils couldn't be  
25 more important than now looking forward.

26

27                   Because the lack of dollars is going to  
28 be the lack of information to feed the system what we  
29 need, to make sound management practices. And so that  
30 word deference to RAC is going to become powerful in  
31 the future because we're going to have to rely on the  
32 people who sit in the seats and do all of the hard work  
33 to make the best management decisions for the people in  
34 their area. And that happens to be the rural  
35 subsistence RAC members.

36

37                   You know, and I know from experiences  
38 in Southeast that a lot of work goes into looking at  
39 the proposals when it comes to the taking of fish and  
40 wildlife and that the Regional Advisory Councils have  
41 to sit and really hash through a lot of local issues to  
42 come up with really good, solid recommendations for the  
43 Federal Board to consider.

44

45                   And, you know, I had to find a fine  
46 line there because deference doesn't -- isn't given to  
47 us -- to the RACs when there's funding involved. It's  
48 only in the taking of fish and wildlife. And to me,  
49 that's key. I mean I could care less about money. I  
50 really could care less about money unless I lost my job

1 or something. Then I might give a crap.

2

3                   But I could really -- you know, the  
4 most valuable resource this state has is the food we  
5 eat -- period. There is no more valuable resource than  
6 what we're putting on our plates for our children to  
7 eat. And this body of people here do a really good job  
8 of regulating that. And that's a tough job. I mean I  
9 -- as a community member who's engaged in that, you  
10 have to be able to communicate to your community the  
11 importance of these.

12

13                   And a lot of times some of our  
14 communities aren't awake at the wheel. You know, we --  
15 we're just not getting that feedback and energy you  
16 would think that needs to be there to get our  
17 communities on board with some of the things that need  
18 to be addressed. And communication is the key.

19

20                   And so in our community we've found  
21 success in changing some of those old stigmatisms, you  
22 know, of working with the State and working with the  
23 Feds and trying to open up the door and address issues  
24 by creating partnerships with people who my forefathers  
25 had a hard time dealing with. You know, had a hard  
26 time creating relationships with. Had a hard time  
27 finding common ground to do resource management things,  
28 you know. Most of -- like my dad in that era felt like  
29 it was all taken from us. And so trying to change the  
30 mentality of the people in our communities to see the  
31 benefit of working in a new system, a system where I've  
32 found that there are friends in the government that can  
33 help us do resource management and to protect those  
34 resources.

35

36                   And just in my couple of years that  
37 I've been on the Federal Board, I've seen a change in  
38 the office staff. I've seen a change in the proposals  
39 that are coming forward. And we've tried to put those  
40 criteria that have put in front of us to work so that  
41 we can benefit the users -- the subsistence users of  
42 the state of Alaska and protect those resources for the  
43 long term. And that's been the kind of challenge that  
44 I see for us.

45

46                   Again, you guys -- the Regional  
47 Advisory Council are probably -- this -- I felt like I  
48 was coming here and I was like it feels like I'm going  
49 to a caucus, you know. Because I'm probably watching  
50 too much politics like everyone else, you know. And

1 then I was like thinking about like oil companies and  
2 gas lines and I was like why am I thinking about these  
3 other things. And then I was like I think this is just  
4 as important, if not more important, than the situation  
5 that those people are working on in those rooms and in  
6 those board rooms. And just because we don't have a  
7 multi-billion dollar impact, I think that we do. I  
8 think that the amount of resource that this great state  
9 has to feed its members is worth way more than anything  
10 they're going to extract out of this country.

11  
12 And so continuing to put together sound  
13 management practices for the future generations is  
14 critical. It's really critical for the long term  
15 health. And you just start to maybe watch too much TV  
16 about frozen Alaska and see all these guys on the Yukon  
17 and stuff and, you know, try to -- that's kind of my  
18 window into what I don't know about the communities up  
19 north. And maybe it's not right, but I know if you  
20 watch the Brown family, that's not Southeast.

21  
22 (Laughter)

23  
24 MR. CHRISTIANSEN: Yeah. I just wanted  
25 to get that clear right there.

26  
27 (Laughter)

28  
29 MR. CHRISTIANSEN: Not -- those people  
30 might be okay, but that's not us in Southeast. I left  
31 my leather coat at home.

32  
33 So again, I think I had a song, a  
34 dance, a story I was going to put together, but I  
35 figured I'd better keep it short and sweet, stick to  
36 the point, and, you know, just remind the Regional  
37 Advisory Council members that you are valuable. We are  
38 listening. I do read the material. I want to do the  
39 best job for you. And I mean that with the most  
40 respect that I can say it.

41  
42 I want to try -- and I learned a lot  
43 from the guys on the Board. Recently, Geoff Haskett  
44 has just resigned and he was a valuable asset from the  
45 Fish and Wildlife as far as watching him work the room  
46 and look out for the best interests of the subsistence  
47 users. Tim Towarak, the Chairman. And Charlie Brower  
48 and the other Board members that have been a part of  
49 the learning experience that I've been fortunate to  
50 have and be involved in and try to help the state find

1 a way to continue to work together.

2

3                   And with the climate again, with the  
4 funding, we're going to have to get better at that. So  
5 the last meeting, I was happy to hear that the State  
6 wanted to re-engage in this agreement and get ourselves  
7 back into the discussions. And that agreement has to  
8 go from the top to the bottom. And if we look into our  
9 communities, those relationships are stronger than  
10 ever. We're using State funds and Federal funds to try  
11 to maximize the protection. Not only the resource, the  
12 environment, the resources need to continue to be  
13 healthy. And those discussions have got to continue to  
14 happen.

15

16                   Communication is key to resolving the  
17 issues that we see in all of our regions. And I think  
18 looking forward, I see a really good future for the  
19 State. I see a really good future for the Federal  
20 program. Hopefully, we could get more money to fund  
21 these projects. I know we're way under-funded as far  
22 as the amount of quality proposals that we get and the  
23 money we have to put towards them. And that's a --  
24 that's probably one of the toughest jobs as a Board  
25 member, is saying I know how critical it is being a  
26 principal investigator myself to get some funding and  
27 then not get some funding. It couldn't be -- it  
28 couldn't hurt worse than losing some money that gives  
29 you critical information.

30

31                   And so I'd like to apologize if you  
32 were on that list because, you know, I work on the low  
33 end of the system as well. I mean at the local level,  
34 doing local management resource stuff, and engage the  
35 community. And the most important thing that those  
36 funding has had an impact on is changing the social  
37 standing of the community, the social mindset. You  
38 know, finding out that we are the owners of the  
39 resource. You know, there is not a title stamped on  
40 anything swimming by my river. It doesn't say Alaska  
41 on it. It don't say Federal. It don't say State.  
42 Don't say anything. It says ours. The ownership is an  
43 inherent right to the people who live on the land.  
44 Regardless of what the title is, what the deed says,  
45 it's an inherent for our generations to not only  
46 utilize, but to protect for the future.

47

48                   And so very fortunate to be again a  
49 part of the system. And I thank everybody for  
50 listening to me. I'm starting to draw out here. But I

1 again think this is a great opportunity to have  
2 everybody come together and see each other. You know,  
3 in my mind, it's a bunch of regions all across the  
4 state and so see everything in the room here we're  
5 representing and trying to help, it makes me feel good.  
6 And I'm glad to see all of you.

7  
8 And I hope your week is productive. I  
9 hope everybody gets home safely. And again thank for  
10 your diligence and hard work. And I look forward to  
11 continuing to support you in your efforts to have good,  
12 sound management of the resources in your area.

13  
14 And put the proposals forward. I'm  
15 ready to stand, support your proposals, and let's  
16 change how we do business in the state. And it has to  
17 come from the rural residents on up to us. And I  
18 guarantee you that you put those proposals in and you  
19 can bet I'll fight for them, especially if your  
20 Regional Advisory Councils unanimously support them.  
21 I'm going to do everything I could do to support you.

22  
23 So thank you very much for your time.  
24 And I appreciate your work. Haw'aa.

25  
26 (Applause)

27  
28 CHAIRMAN REAKOFF: Thank you, Anthony.  
29 Those words are well-accepted. Those are all true  
30 words.

31  
32 There was a Department of Interior  
33 review of the Subsistence Management Program. A lot of  
34 the Regional Councils wanted to have additional rural  
35 members on the Federal Subsistence Board. The  
36 Secretary of Interior appointed two more Board members  
37 and Anthony and Charlie Brower being on the Federal  
38 Board with Tim gives more of a balance to the Federal  
39 Board system.

40  
41 And so as a chair working with the  
42 Federal Subsistence Board, I see the change. I see the  
43 positive movement of the program. The deference to the  
44 Councils is a positive move. It gives all of the  
45 Council members in this room a meaningful voice in fish  
46 and wildlife management. And ANILCA states that.  
47 There has to be a meaningful role of rural members.

48  
49 So I really appreciate all those words.  
50 Those are great. He's quite a speaker. That's why

1 he's the Federal Board member and I'm not.

2

3 (Laughter)

4

5 CHAIRMAN REAKOFF: And so we're going  
6 to go to Lisa Murkowski's video. And she's got a three  
7 and a half minute video or 3.16. So go ahead. Oh,  
8 there she is. Oh, no sound.

9

10 (Video played)

11

12 (Applause)

13

14 CHAIRMAN REAKOFF: I appreciate what  
15 Senator Murkowski had to say there. She's involved  
16 with getting the funding for these Department of  
17 Interior and -- and we do need funding. And so it's  
18 good to have that kind of power in the Senate to get  
19 funding for this program.

20

21 And so at this point we're going to  
22 call the meeting to order.

23

24 And do you want to go over some issues  
25 there, Carl?

26

27 MR. JOHNSON: Thank you, Mr. Chair.

28

29 For everybody in the room, my name is  
30 Carl Johnson. I'm the Council Coordination Division  
31 Chief, with the Office of Subsistence Management. I'll  
32 tell you a little bit about today's and tomorrow's  
33 joint session and the rest of the week.

34

35 This is a joint session of all ten of  
36 the Federal Subsistence Regional Advisory Councils that  
37 were created under Title VIII of the National Alaska  
38 Interest Lands Conservation Act. And they were first  
39 formed and they had their first meetings in the fall of  
40 1993. And there are five -- six people in this room  
41 who have been on the Councils since that first meeting.

42

43

44 Today in joint session, which will  
45 continue until tomorrow at 12:30 approximately, will  
46 not be an action item meeting. So we're not going to  
47 be having public comments during this meeting; however,  
48 everybody is encouraged to provide public comments that  
49 are on the Regional Advisory Council meeting  
50 agendas.....

1 (Phone interruption)

2

3 MR. JOHNSON: I thought I had muted  
4 that. Which the meetings will start on Wednesday and  
5 will continue through Friday. And you'll just need to  
6 look closely at the schedule for the week to see that  
7 the -- they are kind of mixed and matched. There's  
8 meetings going on simultaneously. At any one point in  
9 time there are three different Council meetings  
10 occurring. But we have a, you know, detailed schedule  
11 in the meeting books and there will also be schedules  
12 posted throughout the different rooms and throughout  
13 the week, so everybody can keep track of what is going  
14 on.

15

16 In addition to that, there are various  
17 breakout sessions with training presentations and panel  
18 discussions that everybody is welcome to attend. But  
19 for today, for our joint session, this is an  
20 opportunity for the Council and State and Federal staff  
21 and the public to hear issues that are important and  
22 ongoing with subsistence management in Alaska.

23

24 And with that, I will turn things back  
25 over to our co-chair, Mr. Reakoff.

26

27 CHAIRMAN REAKOFF: Thanks, Carl.

28

29 And so I welcome all the ten Regional  
30 Council members. Everybody traveled a long ways to get  
31 here. Took me two days to get here with my wife. We  
32 drove all the way down. I live in the Central Brooks  
33 Range. Took two days to get here. It's 630 miles. A  
34 lot of people have come that distance.

35

36 And we have -- we want to introduce  
37 some State people also. At this meeting, we have Sam  
38 Cotten, Commissioner. And where is Sam. Is he here.  
39 Hmm. Not here yet.

40

41 Jill Klein is here, Special Assistant  
42 to the Commissioner.

43

44 Do you want to stand up, Jill?

45

46 (Applause)

47

48 CHAIRMAN REAKOFF: Jill also used to  
49 work for Yukon River Drainage Fisheries Association and  
50 did a lot of work with this -- with our Council at

1 least.  
2  
3 And then Lisa Olson. Is she also here.  
4 Not yet.  
5  
6 And Jim Fall, with Subsistence --  
7 Program Manager for Division of Subsistence.  
8  
9 (Applause)  
10  
11 CHAIRMAN REAKOFF: Okay. And Drew  
12 Crawford, Federal Subsistence Liaison.  
13  
14 Oh. Welcome, Drew.  
15  
16 (Applause)  
17  
18 CHAIRMAN REAKOFF: So this -- we do  
19 have dual management in Alaska. And we are always  
20 working with the State on different issues, trying to  
21 make it the best for the resource and for the users and  
22 for State and Federal management.  
23  
24 So at this point I turn to the gavel  
25 over to Molly.  
26  
27 Go ahead, Molly.  
28  
29 MADAME CHAIR CHYTHLOOK: Okay. We've  
30 got it. Good morning, again. And I think at this time  
31 I'll have -- I hate the introductions because I don't  
32 like the I -- I section -- I part of introducing  
33 ourselves. But I think it's -- it would be appropriate  
34 for Jack and I to introduce each other's and then where  
35 we're from and so that you can kind of get an idea of  
36 who we are.  
37  
38 So, Jack.  
39  
40 CHAIRMAN REAKOFF: Well, I'm Jack  
41 Reakoff. I've been on the Western Interior Regional  
42 Advisory Council since the McGrath meeting in 1993 --  
43 in the fall of 1993. My fellow counsel members Ray  
44 Collins and Pollock Simon were also on that. So of the  
45 six aged Council members in this room, we have three on  
46 the Western Interior Regional Advisory Council.  
47  
48 I live in the Central Brooks Range and  
49 I live on the Upper Koyukuk River in Unit -- Game  
50 Management Unit 24.

1 Molly.

2

3 MADAME CHAIR CHYTHLOOK: Okay. Molly  
4 Chythlook from Bristol Bay. I'm Yup'ik and I'm  
5 bilingual, so I speak both English and Yup'ik. And I  
6 chair the Bristol Bay Regional Advisory Council. I got  
7 involved with the Regional Advisory Council shortly  
8 after I retired from Subsistence Division in 2006. And  
9 it's been a -- the work that I did for Subsistence  
10 Division really made my work after my retirement I  
11 guess very informational. And it just -- I just --  
12 everything that I've learned working 26 years with  
13 Subsistence Division just incredibly challenging, but  
14 very instrumental in anything that I've gotten involved  
15 with ever since.

16

17 And I've got the Bristol Bay RAC Board  
18 members here. And I sure thank them for being here.  
19 And just want to welcome each one of you to our Bristol  
20 Bay -- or to our ten Regional Advisory Council session  
21 here.

22

23 And at this time we're going to start  
24 off with the Regional reports. And each of the regions  
25 have a delegate that will be giving reports, updating  
26 subsistence uses and issues for their region. And so  
27 I'm going to go through each region and we're hoping  
28 that you will just -- I'm -- I hate to shorten the  
29 reports, but please keep your reports to about ten  
30 minutes. And we'll watch the clock as much as we can.

31

32

33 But we'll start with the Southeast  
34 Region with your reports. And then follow Southeast  
35 would be Southcentral.

36

37 MR. BANGS: Good morning. I thought I  
38 was safe for a while sitting at the back of the bus  
39 there. But oh well.

40

41 First, I'd like to say I'm honored to  
42 be able to participate in this gathering. My name is  
43 Mike Banks and I am chair of the Southeast RAC. And  
44 I'm speaking to you on behalf of the RAC.

45

46 Our region extends -- for those of you  
47 who don't know Southeast very well, our region  
48 stretches from Ketchikan on the south end to Yakutat on  
49 the north end. And our communities are all coastal in  
50 nature and many are located on islands.

1                   We have 28 communities, 26 of which are  
2 currently considered rural. There are 19 federally  
3 recognized tribes in our region. More than 90 percent  
4 of the land mass in Southeast is part of the Tongass  
5 National Forest, managed by the U.S. Forest Service.  
6

7                   I wanted to talk a little bit about  
8 some common issues with other Councils that we've  
9 worked on recently. One is rural determination. This  
10 issue has affected communities in our region, such as  
11 Saxman and Sitka. Our Council feels the new regulation  
12 addressed the process adequately by taking into  
13 consideration the character of the community rather  
14 than by population.  
15

16                   Another issue that has common -- Mr.  
17 Christiansen alluded to it -- is deference. The  
18 Current Board has come a long way in recognizing and  
19 giving deference as a matter of policy; however, if it  
20 isn't in regulation, any new makeup of the Board may  
21 have a different interpretation and may not give  
22 deference. So this is something I think that's  
23 important for the Councils to keep track of and make  
24 sure that it's -- moves forward for getting deference  
25 to the Councils.  
26

27                   Another one is a customary and  
28 traditional use determination. After the Secretary  
29 review, our Council determined that the current C&T  
30 process did not fit our region and the process our  
31 Council uses to make C&T determinations. In order to  
32 address the concerns in our region, the Office of  
33 Subsistence Management determined we needed to change  
34 the current Statewide regulation before we include  
35 language to address our regional concerns. Short term  
36 solution is to draft a policy for making C&T  
37 determinations in our region, while still working to  
38 draft Statewide regulation languages that will  
39 eventually allow for regional differences.  
40

41                   At the last Federal Board meeting, we  
42 had a meeting of the chairs. And the meeting of the  
43 chairs was -- I thought was very helpful and informing.  
44 It was a useful way to understand the different issues  
45 that Councils share across the State. It was also a  
46 way to understand different issues we don't necessarily  
47 share, but how we can help each other with ideas.  
48

49                   An example from the last meeting was  
50 the difficulties of engaging our youth to get involved

1 in this program. And I -- Mr. Christiansen alluded to  
2 that, too. That, you know, it's hard to bring young  
3 into the program unless we work together to figure out  
4 ways to make it happen.

5  
6 But we exchanged ideas and I felt that  
7 it was very helpful. And I think the meeting of the  
8 chairs should happen at every Board meeting.

9  
10 Some common themes that apply across  
11 the State -- one of them is communications. I'm sure  
12 that other Councils have experienced this problem to a  
13 certain extent, that Council communications have been a  
14 problem. At times when we write correspondence to the  
15 Federal Board to pass to other agencies, it oftentimes  
16 takes months and months to get their way to the  
17 intended recipient. I'm sure we're not the only  
18 Council, but we're working on it and it seems to be  
19 getting better.

20  
21 Another important issue which we've all  
22 come to see in the last few years is adequate funding  
23 for the program and fish and wildlife populations.

24  
25 Another concern that -- is the budget  
26 cuts and the lack of adequate funding for the program  
27 and the monitoring of fish and wildlife populations.

28  
29 Another issue that I know is big on  
30 certain coastal communities around the State is the  
31 North Pacific Management Council and how we can have a  
32 stronger voice on the Council by worrying about the  
33 bycatch of salmon and halibut in the offshore  
34 fisheries. I think it's important that we try to get a  
35 stronger voice on that Council. And I just feel we  
36 can't give up on that. We've got to keep trying to  
37 move forward.

38  
39 The National Park Service -- this is an  
40 emerging issue that we've come across as far as the  
41 National Park Service not allowing subsistence users to  
42 utilize the cabins that are on Park Service lands, but  
43 they're permitted for commercial fishing use. And this  
44 restriction to subsistence use goes against the fabric  
45 of what our way of life is and the historical  
46 connection of the land and resource means. So we're  
47 hoping to alleviate the problem that some of the  
48 resource users in the subsistence arena are not able to  
49 access their cabins that are permitted for commercial  
50 fishing only.

1                   Sometimes issues that have come up  
2 again and again in our region has been the problem with  
3 the sea otters. It's every meeting we've talked about  
4 this and new information comes to light, like how  
5 they're spreading further and further into the  
6 communities resource base. They've taken a heavy toll  
7 on a lot of our subsistence shellfish. We find little  
8 or no abalone, clams, crabs, and other seafood in the  
9 areas where the otters colonize. To take a sea otter  
10 is restricted to coastal natives and the harvest is  
11 much too small to keep up with the exploding  
12 population. So we're at odds as to how we can remedy  
13 that. It's just we're just losing all of our  
14 shellfish.

15  
16                   Another issue that we've recently dealt  
17 with is extraterritorial jurisdiction. We worked  
18 through a problem with a Village that was not able to  
19 meet their subsistence needs for sockeye salmon. They  
20 filled for extraterritorial jurisdiction over State  
21 waters near their Village. The issue was resolved with  
22 local solutions between the community and the State of  
23 Alaska, with input from the Federal government. And  
24 when this first came up, we felt that it was best for a  
25 local solution rather than intervention from the  
26 government. And I think it worked pretty well. We'll  
27 see how it comes out as far as the future lies for that  
28 problem.

29  
30                   Another issue that's in the news all  
31 the time right now is transboundary rivers. Something  
32 that may also affect other Councils that revolve around  
33 transboundary rivers. In Southeast, our concern is  
34 over Canadian mine contaminants and anadromous fish or  
35 water that flow through Alaska, potentially affecting  
36 our salmon stocks. We've continually tried to engage  
37 the Federal Subsistence Board in raising this issue  
38 with the Secretary of State to assure the voice of  
39 subsistence users in our region is heard. We have also  
40 pushed for the State of Alaska to monitor the water  
41 quality on these systems.

42  
43                   We've had a problem on a river that's  
44 down near Ketchikan. It's the Unuk River. And we're  
45 not sure what the cause is, but there's a small fish  
46 called eulachon. And they're prized for their oil and  
47 their flavor. And we've had to close this fishery by  
48 emergency order for subsistence uses several years in a  
49 row. And the lack of funding from the Fisheries  
50 Monitoring Program has inhibited our ability to

1 understand why the stock continues to decline.

2

3                   So that's going to be an ongoing issue.  
4 If we don't have adequate funding we're not going to  
5 understand the growing and the decline of different  
6 fish populations or wildlife.

7

8                   So the Tongass Land Management Plan is  
9 another thing that our Council is concerned with  
10 because over 90 percent of the land is managed as part  
11 of that forest. Our Council is engaged with the Forest  
12 Service in assuring subsistence uses remain an  
13 important factor under new revision to the Tongass Land  
14 Management Plan, which just came out here a month ago.

15

16

17                   In closing, I'd like to say that we all  
18 share a common thread that holds us together in working  
19 to maintain and sharing our unique lifestyle. We must  
20 work hard to engage our young and teach them the skills  
21 of harvest and processing the fish and wildlife we have  
22 in a non-wasteful manner. Foremost we should make sure  
23 we do this to maintain fish and wildlife populations in  
24 a sustainable way so that they will be there for our  
25 grandchildren and our great-grandchildren.

26

27                   Thank you.

28

29                   MADAME CHAIR CHYTHLOOK: Okay. Thank  
30 you, Mike. That was wonderful.

31

32                   Southcentral.

33

34                   MS. CAMINER: Good morning and thank  
35 you very much. My name is Judy Caminer, with the  
36 Southcentral Regional Advisory Council. I've been on  
37 the Council since 2009. Before that I spent about ten  
38 years on subsistence management issues with the  
39 National Park Service. And before that about 20 years  
40 on subsistence issues around the State.

41

42                   A little bit of history. I was glad  
43 Carl mentioned that the RACs began in 1993. The  
44 Wildlife Program was under Federal management starting  
45 in 1993. And I think there have been a few questions  
46 about whether this kind of gathering has ever happened  
47 before. And the answer is yes, it did. I'm having a  
48 little bit of a hard time remember which year, so I'll  
49 guess 2000, 2001. Probably other people remember than  
50 I do. But all ten RACs came together at that time with

1 the Federal Board and State and other managers to talk  
2 about the assumption of fisheries management. So that  
3 was a new phase for the RACs.

4

5 And I remember Mitch Demientieff was  
6 chairing the whole session while Grace Cross from Nome  
7 said now, Mr. Chair, you have ten fish RACs.

8

9 (Laughter)

10

11 MS. CAMINER: So we've done pretty well  
12 since then. And Southcentral is hurting a little bit  
13 because our longtime chair, Ralph Lohse, who was on  
14 from the very beginning, 1993, has retired from his  
15 volunteer activities with the Board. And will  
16 hopefully help us from near or afar, including during  
17 these sessions this week. So we're in a little bit of  
18 turmoil because of this turnover, but we'll figure that  
19 out at our meeting later this week.

20

21 So some of the issues that our Council  
22 has are of course exactly the same as yours. The  
23 highest priority one most likely is climate change.  
24 How is that affecting you. How is that affecting the  
25 species. And how is it affecting us as people who come  
26 together to make regulations in a time of such changes.

27

28

29 We also are really challenged to think  
30 of how to engage young people in the program. And  
31 we've had many ideas tossed around about that. And  
32 hopefully at a session during this meeting we'll come  
33 up with some real practical solutions that could be  
34 implemented soon.

35

36 We too follow the rural determination  
37 process quite carefully, as well as the Park Service  
38 rules on collections. We also have a concern about  
39 some of the hunting rules that have gone into place  
40 around Cantwell, in Denali.

41

42 We also follow very carefully any time  
43 there's a delegation of authority and feel like the  
44 RACs certainly need to be involved with that and  
45 monitor and engage quite carefully.

46

47 Probably like your regions, competition  
48 for resources is a major issue. And we see that in  
49 Hope and Cooper Landing. We see it around Cordova,  
50 Wrangell-St. Elias area. The Denali Highway and

1 particular in the fisheries on the Kasilof and the  
2 Kenai Rivers.

3

4                   And regarding fisheries, we didn't have  
5 projects funded this year. The proposals submitted  
6 didn't make the cut. And so for various reasons, no  
7 funding coming to Southcentral. And that really hurts  
8 the decision-making process, where we need decisions to  
9 be made with adequate information.

10

11                   So we look forward to our meeting on  
12 Wednesday to solve some of these issues and continuing  
13 discussions with all of you here. And thanks for  
14 taking a big chunk of your time to participate.

15

16                   MADAME CHAIR CHYTHLOOK: Okay. Thank  
17 you, Judy.

18

19                   Following Judy is Kodiak/Aleutians.  
20 And then after Kodiak/Aleutians is Bristol Bay.

21

22                   Kodiak/Aleutians.

23

24                   MR. SIMEONOFF: I am Speridon  
25 Simeonoff, from the Native Village of Akhiok, on Kodiak  
26 Island. In Kodiak we've seen a great abundant deer  
27 population and we've seen numbers of geese in Womens  
28 Bay. And they -- with the mild winter, they've seen a  
29 great number of ducks out on the water. And they've  
30 also had a number of swans that over-wintered in  
31 Kodiak.

32

33                   And they said hear they -- heard it  
34 from a great source that they caught the first red in  
35 Chignik a couple of days ago. And down in Cold Bay  
36 they had a mild winter as well.

37

38                   And they had a few people that  
39 harvested caribou in 2016 and the State will have a  
40 permit hunt. That's not a tier hunt. And the bears  
41 were showing up in February already.

42

43                   And the City of King Cove still  
44 advocates for a road between King Cove and Cold Bay.

45

46                   And down in south end of Kodiak, we've  
47 seen a population explosion of sea otters. They're  
48 getting into our clam beds and we're pretty worried  
49 about that.

50

1                   And we've also seen a lot of emperor  
2 geese on the south end of Kodiak Island. We travel --  
3 I don't know if anybody knows about South Kodiak, but  
4 we've got Moser Bay, Olga Bay, Deadman Bay, and  
5 Portage. You go to any of those bays and there's no --  
6 on the sand spit, you see a flock of geese sitting  
7 there. So there's quite a few of them up there.

8

9                   And I would also like to ask any of the  
10 Council members if they have anything to add.

11

12                   Pat.

13

14                   MR. HOLMES: Mr. Chairman, I think our  
15 Council -- several folks as individuals testified  
16 recently on the changes relating to Refuge regulations  
17 on -- assuming regulation -- excuse me. I'm old and  
18 tired. Regulations on bear harvest on the island as  
19 subsistence is exempted, but there seems to be  
20 parallels to some of the problems other RACs are having  
21 with the Park Service. And I read Mr. Reakoff's  
22 comments from his Council on the changes in the Refuge  
23 regulation processes.

24

25                   And so particularly folks in town are  
26 concerned about that and its possible impacts of  
27 expanding beyond sporthunting and its relationship to  
28 predator prey. And I think a lot of folks on our  
29 Council feel that those discussions that we've had on  
30 the Alaska Peninsula and the research that's been done  
31 by the State has shown that some selective removals  
32 makes a big impact on increasing populations of  
33 caribou. And there has been quite a bit of resistance  
34 from the Service on doing that. And I think it's proof  
35 in the pudding that it shows that you don't have to  
36 kill all the wolves or all the bears, but just that one  
37 project they removed where it was 31 wolves, 26 adults  
38 on the calving grounds has allowed the survival of  
39 caribou on the Peninsula to come up from less than two  
40 percent between June and September up to 40 percent and  
41 even more, to where we have had the subsistence hunt  
42 that you mentioned.

43

44                   And so I think there needs to be  
45 discussions between the State and the Federal  
46 government with the RACs participating on things where  
47 you -- there is some really substantial biological  
48 information to show that you can make slight  
49 adjustments and make a big difference in predator prey.

50

1                               That's all I have to say.

2

3                               Thank you, Mr. Chairman, and members of  
4 the Board.

5

6                               MADAME CHAIR CHYTHLOOK: Okay. Well,  
7 thank you. Bristol Bay after -- Bristol Bay's report  
8 will be followed by Yukon-Kuskokwim Delta.

9

10                              Bristol Bay.

11

12                              MS. LYON: Thank you, Madame Chair.  
13 It's a pleasure to work with you again.

14

15                              This is Nanci Lyon and I've been chosen  
16 to speak for our Bristol Bay RAC. I'm the vice-chair  
17 and I've been a member of the RAC since the early  
18 2000s. I honest don't remember which year I was  
19 appointed.

20

21                              And I'm going to speak -- just because  
22 we just heard about predator control in the Alaska  
23 Peninsula, I'm going to speak to that issue because  
24 it's one that has been ongoing for us for many, many  
25 years. We struggle as a RAC and a group of people on  
26 the Alaska Peninsula having two of our herds -- the  
27 Northern Peninsula herd and the Southern Peninsula herd  
28 basically virtually eliminated. And the predators  
29 continue to enjoy the animals while we have been unable  
30 to share in that feast for many, many years now. And  
31 so it's definitely an ongoing issue with our group of  
32 people wanting to see implement -- predator control  
33 implemented in some form out in our area.

34

35                              In addition to that, we also have  
36 issues with climate change. Our moose survey  
37 methodology has been ineffective for almost ten years  
38 now. And we are working in conjunction with the Park  
39 Service and the Fish and Wildlife Service to come up  
40 with new methods to count our moose. Again, due to  
41 climate change we're not having the snowfall we used to  
42 have. We're unable to fly and find the animals and  
43 accurately enumerate them.

44

45                              The survey numbers that we're getting  
46 for our areas -- up and down our whole entire area from  
47 the Iliamna area all the way down the Peninsula, the  
48 survey numbers that we are getting are not matching our  
49 field observations from our hunters. They're not at  
50 all the same. And so we're unable to really do any --

1 or offer any quality management options because  
2 nobody's trusting the numbers. So we're working on  
3 getting new methodology for surveys so that we can have  
4 some numbers we can count on.

5  
6 We've had some issues in our area with  
7 conflict between sporthunting or sportfishing  
8 regulations and subsistence users. The latest one  
9 involved fish chumming. There was Board of Fish  
10 implemented a new regulation that it was illegal and  
11 you would be cited if you were caught fishing below a  
12 chumming site. They define chumming sites as being  
13 areas where fish carcasses and waste was being thrown  
14 into the river, bringing in whitefish, rainbow trout,  
15 Dolly Varden -- that type of deal.

16  
17 The problem is is with our subsistence  
18 sites out there, it's very common and has gone on  
19 forever for the kids to be involved in subsistence  
20 fishing. And one of the things they do as they're  
21 being involved is to fish below the sites and have fun  
22 catching these fish. And now all of a sudden they're  
23 being cited for it.

24  
25 So we're working on that. The Fish and  
26 Wildlife Service and Park Service and the State of  
27 Alaska has been very open to realizing that that's not  
28 the intent that the law was. When it was originally  
29 implemented, it wasn't the intent to make illegal  
30 criminals out of subsistence users, but instead it was  
31 meant to stop sport fishermen from unethically using  
32 chum as a way to catch their fish. So that's being  
33 worked out, but it is an issue. It could happen in  
34 your areas as well, if it isn't already.

35  
36 We have a -- in some ways a good and in  
37 some ways a bad situation going on with our Nushagak  
38 Peninsula herd. The population of our caribou over  
39 there has basically exploded and now we're trying very,  
40 very hard to protect the range that they're on. Again,  
41 climate change is affecting this problem. We're unable  
42 to access the animals easily -- the local Villages.  
43 And the users of that resource without the snow have a  
44 very difficult time getting to the animals, thus  
45 there's no way for us to stem the explosion basically.

46  
47  
48 It would have been nice probably if we  
49 could have seen this coming sooner so that we could  
50 have been able to implement some types of hunts or

1 opened up the opportunity a little bit more. We now  
2 have three caribou that are allowed. We still don't  
3 have same day hunt, but we're looking at opening up in  
4 other ways as well. The State has also opened up their  
5 lands outside to try and get this population under  
6 control as soon as possible.

7  
8 One of the success stories we've had in  
9 our area was with a redbfish issue that we'd been  
10 working on for a number of years. We were just  
11 debating that this morning. I know that it took us six  
12 or seven years, but Uncle Ted actually implemented  
13 through Federal regulation the ability for the  
14 descendants from Katmai to go into Katmai National Park  
15 and collect redbfish in the fall, which they're spawned  
16 out sockeye salmon that are a delicacy for the rural  
17 users in our area. And the Park Service was unaware at  
18 some point -- we're going to say six or seven years ago  
19 -- that that law was on the books. And it was in  
20 conflict with what their regulations were.

21  
22 So to make a long story short, we were  
23 able to have Park Service acknowledge the usage, put it  
24 into law -- and the State as well, because we needed  
25 the State's participation in it, according to the  
26 language that was in regulation. And we just completed  
27 that this last Board of Fish cycle in December. And  
28 that was actually a huge feat to get everybody lined up  
29 on that to make a resource that has been used forever  
30 legal to actually use. So we were very pleased with  
31 that even though it took us an awful long time to  
32 achieve it.

33  
34 Another issue in our area as -- are the  
35 fish. Our fish, too, we're worried about. The king  
36 salmon -- again we're lacking monies for adequate  
37 surveys. With the climate change that's going on, the  
38 weather conditions are changing. It's changing  
39 escapement numbers. It's changing spawning areas and  
40 behavior. And we need to make sure that those changes  
41 don't severely affect all of our king salmon runs in  
42 that area. They need to be monitored carefully.

43  
44 The Mulchatna caribou herd, we also  
45 need to make sure that the surveys there are ongoing to  
46 monitor the numbers. We've got to make sure that they  
47 continue to be available for our users out there. I  
48 know it still comes down to money and funds and I'm  
49 sure I've already heard several other Councils say that  
50 funding is an issue.

1                   And again, youth involvement in our  
2 area is also a struggle. We just decided last fall to  
3 hold our meetings at the Dillingham school. It seemed  
4 I think to our Council members anyway, we were all very  
5 pleased because most of the youth at the school then  
6 were able to come in and observe and participate. We  
7 actually had some youth after watching a portion of our  
8 Council session be brave enough to come up and give  
9 some testimony. And we were extremely pleased with  
10 that.

11  
12                   And because of that, we're going to --  
13 we decided to try and make an effort as often as  
14 possible to hold our future meetings at the schools in  
15 our areas so that we could get the youth more involved  
16 in what we were doing and be able to help answer their  
17 questions, as well as given them an idea of some of the  
18 things that their future holds for their subsistence  
19 lifestyle as well.

20  
21                   And then finally I just wanted to give  
22 an observation that was shared with me this morning by  
23 our Iliamna Lake members. We have -- the murrens have  
24 returned to the Iliamna Lake region very heavily.  
25 There's -- where there were a few hundred before, now  
26 there are thousands that up there. And they're feeding  
27 on our salmon smolt that are out migrating in that  
28 area. So it's just another form again of predators  
29 entering an area that needs to be observed and watched.

30  
31                   And I -- that concludes my report,  
32 Madame Chair.

33  
34                   Thank you.

35  
36                   MADAME CHAIR CHYTHLOOK: Okay. Thank  
37 you, Nanci.

38  
39                   The next region is Yukon-Kuskokwim  
40 Delta. We discussed possibly having a break, but I  
41 don't think it's going to work. So if you feel like  
42 you need to take a break -- or are we. Okay. It looks  
43 like we're making good time. And you want to call a  
44 ten-minute break. We can do it after the Yukon-  
45 Kuskokwim. So thank you, reporters, for staying on  
46 time, so we can have a break.

47  
48                   Yukon-Kuskokwim.

49  
50                   MR. ROCZICKA: Good morning. I don't

1 have a prepared statement here. I just got assigned by  
2 my chairman to do this.

3

4 (Laughter)

5

6 MR. ROCZICKA: Just off the top of my  
7 head, a couple of major issues. I'm Greg Roczicka.  
8 I'm the vice-chair of the YK-Delta RAC. And our major  
9 issue of course that we have to deal with out in our  
10 region is the dual management structure that we have in  
11 our river. That is the major problem that we have.

12

13 A lot of our time over the last year or  
14 so has gone into trying to develop that co-management  
15 demonstration project which Deputy Secretary Connors  
16 announced just over a year ago at AFN. And putting  
17 together a structure for the Kuskokwim specifically  
18 that has two-thirds of the river and one-tenth of the  
19 population under State management and one-third of the  
20 river and 90 percent of the population down in the YK-  
21 Delta Refuge.

22

23 So that's -- it's been a major  
24 challenge to put something together that also other  
25 regions and other areas such as the Yukon or perhaps  
26 Bristol Bay and down to Southeast can look at as a  
27 structure for a co-management process within their  
28 respective regions.

29

30 And what we've come to see is that it  
31 cannot be a dual management. It has to be a tri-  
32 management where -- what we have right now with the  
33 State and Federal, it's the two-legged stool. And it's  
34 not going to work if you're going to have some  
35 realistic subsistence management without those three  
36 entities at the table. Without all three legs of those  
37 stool being a solid part of it.

38

39 Another benefit that's come out of this  
40 as well is everyone knows that the 10,000 years of our  
41 people is very real. It's so visceral. People have  
42 said it's part of our DNA. And it is. But what people  
43 have really come to grips with through this -- through  
44 the negotiations and putting this together is  
45 recognizing that 9,940 of those years did not have the  
46 technological ability to affect the resource as we do  
47 now.

48

49 The commercial gear that was introduced  
50 post-statehood in the early '60s and '70s and the

1 commercialization that occurred, along with evidence  
2 coming out in the 1980s and everybody and their uncle  
3 and nephew and son and brother all have snowmachines  
4 now, so any moose that sticks its nose out of the brush  
5 in the wintertime don't have much of a chance of  
6 surviving. But people are really coming to grips with  
7 that and we've grown our populations quite well on the  
8 landside of things.

9  
10 So that's -- again, that's been our  
11 challenge. And I'm happy to report that we have come  
12 to final language on that Memorandum of Understanding  
13 with the Inter-Tribal Fish Commission, Kuskokwim River  
14 and the Tribal Fish Commission here just about a little  
15 over a month ago. We're working out our final details  
16 on making sure the enabling language actually doesn't  
17 come back to us later on by this or that lawyer, saying  
18 we know that's what it says, but that's not really what  
19 it means, which we end up having to deal with in  
20 several management areas, such as the proposed rule  
21 it's trying to put into place.

22  
23 So that's our main issue for now. I  
24 would say we also have the major concern with the  
25 proposal that's being put forward. The statement of  
26 ANILCA being that subsistence will have the priority  
27 use and the Service's position that we have to manage  
28 for the natural diversity with very rare cases that are  
29 based on sound science. And unfortunately what we see  
30 happening here is that it's more political science  
31 rather than biological science. And there didn't seem  
32 to be any problem with killing off a whole bunch of  
33 foxes to help the brants and the emperor geese and the  
34 -- oh, what was it. The white-fronts and the cacklers  
35 all survived for several years and some might say that  
36 that's been to the benefit of sportsmen in the Pacific  
37 Northwest. So there's plenty of room here.

38  
39 There's -- I would hate to think of  
40 this proposed rule as the response to AFN's resolution  
41 that was very aptly titled 911, which requested  
42 specifically of the Service and the Managers to come  
43 out with a plan. How are you going to manage your  
44 populations to provide food, subsistence uses and  
45 subsistence needs and what is the priority use. The  
46 priority use of Title VIII of ANILCA and specifically  
47 for those Refuges was to provide for subsistence. And  
48 I think they're kind of contradicting themselves when  
49 this proposal comes forward as it does and its fallout.  
50

1                   And those a couple of our issues.

2

3                   Mr. Chairman.

4

5                   MR. WILDE: Thank you, Greg.

6

7                   We do have some problems on the Yukon.  
8 We are -- the Yukon-Kuskokwim Delta RAC is made up of  
9 the two rivers, the Yukon and the Kuskokwim. And in  
10 both of the two rivers we have the similar problems  
11 with our chinook. We've tried in a number of years to  
12 try different avenues in trying to see if we can get  
13 the chinook to come back into the -- both of the rivers  
14 and we've had a lot of problems with that, as we have  
15 in the rest of the State. I guess we all realize that  
16 we're -- the chinook runs are not coming back as strong  
17 as they used to in the past.

18

19                   And as far as our elders and the people  
20 that are concerned with the return of the chinook, I've  
21 stated that this probably won't ever be the same as it  
22 was before because of the global warming that we have  
23 nowadays. But it's really affecting not just the  
24 salmon. The salmon is also being affected by the  
25 diseases that's contacted some years back -- the  
26 ichthyophonous that the chinook contacted some years  
27 back and was in the news for some number of months at  
28 the time.

29

30                   But aside from the bad run of chinooks,  
31 one of the good news that we have on the Yukon is that  
32 we have abundance of moose. And this is the most  
33 lenient regulation on moose that we have is on the  
34 Yukon River. We started some years back with a  
35 moratorium on the Yukon River. We agreed on five years  
36 for the moratorium on moose. And after five years we  
37 realized that we needed a couple more years to -- for  
38 the moratorium, so we had the moratorium on moose on  
39 the Yukon River for a number of seven years. After  
40 seven years we had -- we started seeing an explosion in  
41 the moose population on the Yukon River. Right now our  
42 moose -- we're able to go out and hunt moose from  
43 August to March. And we're able to get two moose, one  
44 of which may be a cow and the other one must be a bull.

45

46

47                   But aside from that, all the people  
48 that we've always talked to along the river and along  
49 the coast -- along both of the rivers, we've always  
50 seemed like come up with the same problem in both of

1 the rivers since the return of the chinook. And if and  
2 when that should ever -- if that should ever happen, I  
3 hope it's going to be because of some of the work that  
4 we've done and that we've sacrificed over the years.

5  
6 And that's all we had for the Yukon-  
7 Kuskokwim.

8  
9 Thank you.

10  
11 MADAME CHAIR CHYTHLOOK: Okay. Thank  
12 you, Yukon-Kuskokwim. They went a little bit over, but  
13 they have the largest region and the largest Villages,  
14 so they're fine.

15  
16 We'll take a ten-minute break. We'll  
17 be back here at 10:00 o'clock sharp.

18  
19 Thank you.

20  
21 (Off record)

22  
23 (On record)

24  
25 MADAME CHAIR CHYTHLOOK: Okay. It's  
26 10:02. We're two minutes late here.

27  
28 Western Interior, where are you.

29  
30 MR. COLLINS: Right here.

31  
32 MADAME CHAIR CHYTHLOOK: Okay. Let's  
33 get started.

34  
35 MR. COLLINS: Okay. Yesterday in  
36 church I heard a joke I wanted to share as we begin  
37 here. My name is Ray Collins. I live in McGrath. And  
38 as you mentioned, I've been on the RAC since it was  
39 formed in '93.

40  
41 But a man got on a bus and he was  
42 inebriated. He stumbled in and he took a seat by an  
43 elderly lady that had a Bible in her lap. And she took  
44 a look at him and noticed his condition and said young  
45 man, you're headed for hell. He jumped up and dashed  
46 for the door. And she heard him say uh-oh, I'm on the  
47 wrong bus again.

48  
49 (Laughter)

50

1 MR. COLLINS: I hope we're all on the  
2 right bus this morning and headed in the same direction  
3 because we've got some serious issues to deal with.  
4 And I thought that kind of fit in with that.

5  
6 And it's good to hear from the other  
7 chairs. I'm the vice-chair on the Western Interior  
8 RAC. And that we have a lot of common issues and it's  
9 good that we can get together and share this way.

10  
11 The Western Interior RAC stretches from  
12 the Ruby down to Holy Cross on the Yukon, up to the  
13 head of the Koyukuk River and then on the Kuskokwim  
14 from Aniak to Telida. The whole headwaters upriver  
15 from Aniak up, so it includes a huge area.

16  
17 One of our main issues is the  
18 rebuilding of the king runs on both rivers we're  
19 involved. And some hard decisions have had to be made  
20 to -- as was mentioned by Greg Roczicka there -- things  
21 began to change when the commercial came in.  
22 Historically, we need to recognize that those fish  
23 heading for the headwaters could truck right up the  
24 middle of the river basically unfished if they step --  
25 kept -- and the elders in our area say the salmon have  
26 their own trail, you know. But with moving into the  
27 main river with commercial gear and drifting in the  
28 main river, those same ones heading for the headwaters  
29 are fished all the way up the stream.

30  
31 And as we saw in Canada with the  
32 closures this year, the escapement had been just barely  
33 holding at 40,000, is what they needed. It jumped up  
34 to 80,000 this year, so we got a lot more salmon on the  
35 spawning ground up there, but at a high price for the  
36 Villages down below.

37  
38 The same thing happened on the  
39 Kuskokwim. Was a closure all the way up. We had a  
40 weir finally in one of the headwater streams there on  
41 the Salmon River. And whereas the aerial counts had  
42 shown that the max of a couple thousand fish a year,  
43 the weir count was 6,800. And I would note that these  
44 are in weak runs. Think of what the escapement would  
45 have been if that was a major run up there. So it's  
46 really important that we protect some of the --  
47 especially those big spawners to get up there and start  
48 producing more young.

49  
50 Because in both Canada's case and the

1 head of the Kuskokwim River, the biggest fish often are  
2 those heading for the headwaters. They've got the  
3 furthest to go and they're the richest and the best  
4 eating and so on. So it's for all of -- to all of our  
5 advantage to work together to see those runs -- to do  
6 what we can to restore those runs.

7

8 But at the same time we have a  
9 challenge of providing for subsistence use now,  
10 protecting the resource, and turning it over to the  
11 younger generation in good shape. And those things are  
12 often in conflict. How do we provide for needs now and  
13 at the same time how do we protect those resources for  
14 use in the future. And that's what we're struggling  
15 with on the two rivers there in trying to rebuild those  
16 runs and getting the escapement we need.

17

18 And people are having to pay a hard  
19 price. One of the things they have to do is shift to  
20 other fish than king salmon. And at the lower river  
21 they have the advantage of having all the fish that  
22 come into the river past those Villages. And so we've  
23 tried to limit the commercial down there at least till  
24 later in the season, so that those that couldn't catch  
25 the kings can take advantage of those resources. But  
26 we have to -- in rebuilding the kings, we have to be  
27 looking at what's happening to the fall chums and to  
28 the silvers and the other fish that are coming into the  
29 river.

30

31 And then as was mentioned by someone  
32 here, we've got the climate control that's completely  
33 out of our hands and we don't know what the survival's  
34 like. But if we can get more smolt out to the ocean,  
35 hopefully we'll see some restoration of those runs.

36

37 Another issue that we have in common  
38 with some of the other regions is the idea of predator  
39 control. I'll use the example of McGrath, which I'm  
40 most familiar with. It's mostly State land there, but  
41 we worked for about three years studying what the  
42 predation was. And we found that bears was the major  
43 predator on the young calves. What was happening is  
44 our population was dropping and it was staying low  
45 because of this poor calf survival. And if you don't  
46 get those calves into the stock you've got an aging  
47 moose population.

48

49 But with the closures for several years  
50 we now have many more cows out there. We're harvesting

1 a lot of the young bulls for eating, but the cows are  
2 all out there breeding and we're seeing our population  
3 growing again in that area. But if we hadn't  
4 interceded it would have stayed at a low level because  
5 there just was not enough calf survival for it to grow.

6  
7

8 So we have to keep that in mind. That  
9 where we can on some of the Wildlife Refuges and so on,  
10 it may be necessary to step in and temporarily reduce  
11 predator populations in order to get growth in there  
12 again.

13

14 Another issue that's come up over the  
15 years is in terms of decision making. I know the only  
16 tools we have now is asking for special action, but if  
17 you want a winter hunt going on and people can't get  
18 out for the winter, they haven't really been provided a  
19 chance to get a moose. And you can't extend the  
20 season. Whereas if that decision making was given to  
21 the local Refuge managers, he could -- because the  
22 earlier season couldn't be used for the weather, he  
23 could extend that season.

24

25 So the Federal process is very slow in  
26 getting any regulation changed and we need to keep in  
27 mind to do what we can to make sure that decisions  
28 could -- when needed can be made promptly.

29

30 Those are some of the major issues in  
31 our area. And I'll conclude with that.

32

33 Did any of the members have anything  
34 that they wanted to mention.

35

36 (No comments)

37

38 MR. COLLINS: Yeah. Okay. Thank you.

39

40

41 MADAME CHAIR CHYTHLOOK: Okay. Thank  
42 you.

43

44 The next region is Seward Peninsula.

45

46 MR. GRAY: Say good morning. My name  
47 is Tom Gray. I'm from the -- Nome. And a little  
48 background on me. I owned a reindeer herd for 25, 30  
49 years. And got wiped out by caribou and wolves. So  
50 you'll hear predator control from me.

1                   But anyway, my area has been blessed  
2 with caribou. And the herd was 450,000 animals --  
3 470,000 at one time. Today it's -- they're  
4 anticipating a 200,000 animal count this coming summer.  
5 So hard decisions are going to be made. It's -- and  
6 we're going to be part of it.

7  
8                   The State -- I'm involved in the Local  
9 Advisory Committee in Nome and we're already starting a  
10 process of trying to address what's going to happen  
11 next five, ten years. And I also sit on the Western  
12 Arctic Caribou Herd and they're looking at it. So  
13 caribou though has been a real blessing for our region  
14 in one sense because they can -- everybody's freezers  
15 get filled for the price of gas.

16  
17                   One of the downfalls of the caribou  
18 herd, it's brought wolves with it, which has been a  
19 detriment to the reindeer industry. I mean it just  
20 literally -- between bears and wolves it -- and  
21 caribou, I lost 700 reindeer overnight to caribou one  
22 time.

23  
24                   So -- but anyway, it's been really  
25 good. The wolves have been bad. Wolves have knocked  
26 down our -- and are still knocking down our moose  
27 populations. You know, I'm of the -- I come from a  
28 walk of life I guess if the most freezers you've got  
29 full of moose and caribou and stuff, you win. I've got  
30 five freezers full, so I -- I do a lot of hunting and  
31 fishing.

32  
33                   We have a muskox program that's been a  
34 real asset to our region. But here again, bears and  
35 wolves are keeping those numbers down.

36  
37                   Over the years Norton Sound has been  
38 hit really, really hard on the salmon and -- and it's  
39 been a struggle to fill your fish racks. And, you  
40 know, we've talked in meetings about we need funding in  
41 our area. And time and time again it's come up --  
42 well, we don't have enough Federal land in your areas.  
43 So this is an area that needs to be worked on.

44  
45                   You know, the fish don't know these  
46 areas. Us users, we shouldn't be blamed on just  
47 because we live in an area of no Federal lands. And I  
48 shouldn't say no. There's not much Federal lands in  
49 certain others and another part that we represent that  
50 has lots of Federal lands. And they get all the money.

1 But we need to work together in managing this fish  
2 resource.

3

4 So marine -- out in the ocean we have  
5 seals. Oogruk hunting, seal hunting. I set beluga  
6 nets. Catch beluga whales. I tag beluga whales. It's  
7 been good. We have a solid resource out in the ocean.

8

9 Climate change -- you know, it seems  
10 like that's a key word nowadays. Fall time, I see more  
11 and more wind. All winter long it's been 30 degrees  
12 and an east wind. It's -- we're in a changing time.

13

14 So what else. Customary and  
15 traditional use. What a tool. You know, I think we  
16 all need to learn more about that tool. As our  
17 resource declines, we're going to start using that tool  
18 more and more. Or if our resource gets better, we will  
19 lighten up on that resource. But customary and  
20 traditional use to me is something that all of us need  
21 to learn a little bit more about.

22

23 Predator control -- you know, it's -- I  
24 live season to season. Right now I'm a hunting guide  
25 and I own a fishing lodge. And I live season to  
26 season. My world is subsistence and then I take time  
27 out to go bear hunting and et cetera. But, you know,  
28 this weather and -- things are changing. Timing's  
29 changing and we need to -- we've having -- or we're  
30 being forced to adapt to it.

31

32 So anyway, does the Board have anything  
33 they want to add to this.

34

35 MR. BUCK: I would like to say that I'm  
36 from White Mountain and my name is Peter Buck. And  
37 we're just about ready to go oogruk hunting. We  
38 usually don't go till late April and stuff like that,  
39 but the ice is so thin that, you know, we're able to do  
40 it now. And the ice is -- the oogruk will have their  
41 babies and then there will be no ice to -- we'll go up  
42 -- we'll have to go to the beaches again. And that's  
43 just climate change to us.

44

45 And we're having a hard time crabbing  
46 for subsistence because of the ice conditions.

47

48 Thank you.

49

50 MR. GRAY: Ted.

1 MR. KATCHEAK: Yes. My name is  
2 Theodore Katcheak. I'm a member of the Area Council in  
3 Stebbins and also been Regional Council -- a devoted  
4 Council member from 1993, so seen a lot of change in  
5 the organization.

6  
7 Contrary to what Mr. Co-Chair Tom, we  
8 -- in Stebbins we have a reindeer herd and then we have  
9 subsistence hunters from all over Yukon River and both  
10 Stebbins and Saint Michael. We've declared our area  
11 southern portion of Unit 22A, which is in -- south of  
12 Unalakleet and the northern portion of Unit 18, the  
13 Yukon River Village region. So it -- they come to  
14 Stebbins or Saint Michael and they kill reindeer. And  
15 a few -- a couple of days ago, my brother-in-law said  
16 oh, they went out toward Unalakleet and they got three  
17 caribou, but when they butcher they, they're all  
18 reindeer. In asking one of the -- my friend Tim from  
19 Unalakleet, he said that there are no caribou crossing  
20 Yukon Ri -- or Unalakleet River south.

21  
22 So it's a very hard thing to do, to  
23 realize that you're growing a reindeer herd and it's  
24 being used as subsistence food for villages south of --  
25 in the Yukon River and people of Stebbins and Saint  
26 Michael also. Because no one is taking a note that  
27 yeah, we have a reindeer herd, but we don't have  
28 caribou anymore. So it's -- for me, it is a -- it's  
29 heartening to live both lives. It's harder to be a  
30 reindeer herder, owner and also a subsistence hunter  
31 and fisherman.

32  
33 So thank you for -- Mr. Chair -- Co-  
34 Chair.

35  
36 MR. GRAY: If I could, I'd like to  
37 clear up what he's talking about. Our area is probably  
38 300, 400 miles long. And probably half of that area is  
39 affected by the caribou -- Western Arctic caribou herd  
40 movements. And years ago -- ten, fifteen years ago  
41 that herd would go down into the Unalakleet, Stebbins,  
42 Saint Michael area. It quit going that way and came  
43 out west and went westward.

44  
45 And so what Ted is talking about, they  
46 do have one of the only -- or they have one of the few  
47 surviving reindeer herds down there. And people are  
48 killing reindeer, saying they're caribou. But just the  
49 movements of this Western Arctic caribou herd has  
50 really blessed our area. And there are hard decisions

1 coming that we're going to have to address. Even this  
2 Board's going to have to address it.

3

4 The other issue -- I know the Park is  
5 dealing with issues within the Park and how hunting and  
6 so on and so forth can happen in the Park. And that's  
7 going to impact local people, I imagine.

8

9 But anyway, thank you.

10

11 MADAME CHAIR CHYTHLOOK: Okay. Thank  
12 you.

13

14 The next one on the regional report is  
15 Northwest Arctic. And after Northwest Arctic is going  
16 to be Eastern Interior.

17

18 MR. KRAMER: Good morning, everybody.  
19 My name is Mike Kramer. I'm with the Northwest Arctic  
20 RAC. I've been on there for about ten, twelve years.  
21 They call me the Kid because I'm the youngest on the  
22 Board.

23

24 (Laughter)

25

26 MR. KRAMER: We as a Northwest Arctic  
27 RAC -- we strive for youth involvement. We strive for  
28 our meetings to be broadcast over the radio and/or  
29 televised, if possible.

30

31 This year we started alternating our  
32 meeting locations to be able to have more outreach  
33 within the other communities, to be able to hear more  
34 from other communities and other subsistence users.  
35 And also it's a benefit to the community for us to be  
36 there to also hear their concerns.

37

38 You know, just like everywhere else,  
39 we're dealing with global warming. A lot of global  
40 warming. It's been very warm in the Northwest Arctic  
41 this year. We've had a lot of icing, rain in January.  
42 It's beginning to affect a lot of the -- you know, the  
43 region -- region-wide. And it's started beginning to  
44 affect the wildlife. You know, we also have been  
45 having a lot of fires lately. Lack of rain, thinning  
46 ice.

47

48 All kinds of stuff's beginning to  
49 affect our game management unit. You know, the rivers  
50 are beginning to be lower. The salmon are having a

1 tough time spawning up in some of those areas. You  
2 know, our migration -- caribou migration is taking the  
3 turn for the worst. I've been trying to get some  
4 people with the State to admit that the Red Dog Mine's  
5 had an impact on our caribou migration, but they won't.

6  
7                   You know, the migration is now going  
8 farther east. Camps are beginning -- you know,  
9 transporter camps are beginning to be closer and closer  
10 and they're starting to have conflicts with subsistence  
11 users. You know, and a lot of the -- like Noatak is  
12 having a lot of conflicts with having to travel 100  
13 miles just to go get caribou. Gas in Noatak I believe  
14 is at \$14 a gallon. Pretty spendy. Cost of living up  
15 there is pretty bad. And we're all striving to make  
16 ends meet.

17  
18                   You know, really a lot of other, you  
19 know, things going on. A hundred miles -- you know,  
20 they're -- I'm trying to think of what else we had to  
21 -- what else -- where all -- the declining caribou herd  
22 in Northwest Arctic is having a drastic impact on our  
23 region. And we're looking at taking measures now to  
24 prevent a crash like our dahl sheep did, you know, a  
25 few years ago. Our dahl sheep population is very  
26 small. We're protective what we've got and what we're  
27 -- we're going to keep what we got.

28  
29                   And, you know, we're following a  
30 contingency plan with our caribou herd through  
31 population -- through the population of caribou. We're  
32 afraid that if we -- you know, if we -- if us as  
33 subsistence users starts slowing down the take on  
34 caribou, it's going to become -- that increase the take  
35 on moose. And it's going to start affecting everything  
36 as a whole, all our resources. So we're trying to  
37 manage our caribou herd now. Take early management to  
38 be able to prevent any other further conflicts between  
39 other agencies and users.

40  
41                   Predators -- holy smokes. So many  
42 people are taking wolves within our region, you know,  
43 we might as well be the wolf-slaying region because a  
44 lot of guys are out there really taking a lot of them.  
45 And I encourage them. You know, a lot of people are  
46 starting to carry them AR-1's and really take a lot of  
47 wolves. You've got to take them while you can. We're  
48 trying to increase it and make it liberal amounts. You  
49 know, real high amounts for people to take and make it  
50 easier for them to take them in order to be able to

1 control the population.

2

3 Bears -- yeah, we've got a lot of  
4 bears. We're increasing the take on bears where people  
5 could take them in the spring and in the fall. They're  
6 really getting into camps. Really tearing up people's  
7 subsistence camp areas. Becoming a nuisance.

8

9 This year we put a special action  
10 request to have the caribou herd closed on all Federal  
11 lands, which in Northwest Arctic the majority of our  
12 area is Federal lands. To all non-Federally qualified  
13 subsistence users for one year to see what kind of a --  
14 see whether that will help. The reason why we're doing  
15 this is because of census. The last census was done in  
16 2013 and that was roughly at about 230,000 head  
17 compared to ten years prior it was at 750,000 head.

18

19 They've done studies as to see whether  
20 they've eaten themselves out of house and home. They  
21 have not. They've got plenty of food. It's just a  
22 cycle. We believe it's just a cycle. And it has --  
23 you know, some of it has to do with predation. Being  
24 able to take out a lot of the animals.

25

26 Let's see here. We have conflicts  
27 between transporters, air traffic -- a lot of air  
28 traffic within our area, especially in Noatak.  
29 Noatak's been affected. Kiana Squirrel River. Just to  
30 be able to see what this special action request would  
31 be able to help the people. You know, the last couple  
32 of years there's been such a crazy urgency for people  
33 to get caribou because they're afraid of a closure, to  
34 where people are -- it's combat hunting in that river.

35

36 But this year was a lot better.  
37 Everybody was at ease. There wasn't such a crazy  
38 urgency. But I know a lot of people are taking more  
39 animals because they're feeding more family members.

40

41 You know, the subsistence users within  
42 the area have done very well. We promote a lot of our  
43 children into doing a lot of subsistence -- the Red Dog  
44 -- you know, I explained about the Red Dog Mine, you  
45 know, having an impact. And they deny it. And then  
46 now, you know, here in the future we're going to have  
47 an Ambler Road project. That's going to absolutely  
48 kill our herd -- our caribou -- Western Arctic caribou  
49 herd. We might as well become reindeer herders. We  
50 might as well get some from Norton Sound. Start now.

1                   You know, that's going to really impact  
2 our area. It'll help us financially, but it'll take  
3 our -- slowly strip our subsistence way of life away.  
4 And also our -- you know, our rural status will change.

5  
6                   You know, the ocean ice has become  
7 thinner. More dangerous out there hunting oogruks in  
8 the spring. I've noticed that when I've gone out there  
9 hunting and the oogruks sitting out there on the ice,  
10 the ice is thinner. Man, there are just a crazy amount  
11 of UV rays. I've been trying to find someone who can  
12 give me something to be able to do a UV rating off the  
13 ice just to see how -- you know, how bad it is out  
14 there. I'm still looking into that.

15  
16                   You know, right now we're looking at  
17 the Shell, you know, expiration in our northern waters.  
18 What kind of an impact if, you know, that was to have  
19 an oil spill. And it would be an absolute catastrophe  
20 to Northwest Arctic. You know, all the coastal waters.

21  
22                   And we have several studies -- current  
23 studies going on. We have the sheefish. That's an  
24 ongoing study because our population is very healthy  
25 and we want to be able to keep tabs on them. A lot of  
26 people depend on the sheefish up there in Northwest  
27 Arctic. We also have the Arctic char, Dolly Varden.

28  
29                   They have tagged some of our animals  
30 with some of these crazy, big tags and a little fish  
31 swimming with it. And a lot of them have ended up in  
32 Russian waters, Russian rivers, and then also even  
33 coming back to our area. That's a very vital  
34 subsistence resource.

35  
36                   Whitefish -- you know, their -- all  
37 areas -- their spawning grounds, their -- their either  
38 gathering grounds, you know, to study it is helping out  
39 the people being able to better understand where. On  
40 the Selawik River they had a big slough up there  
41 figured well, you know, the threat is gone. It's not  
42 gone. It may affect it, you know, down the road so we  
43 wanted to continue that whitefish study because a lot  
44 of the subsistence users region-wide depend on  
45 whitefish for a lot of things.

46  
47                   And we have a lot of impacts. We have  
48 a lot of beavers. And there's -- they're really  
49 damming up and, you know, creating a lot of havoc on a  
50 lot of the spawning areas. Some people can't even get

1 to their camps anymore because they have to go over  
2 five beaver dams to get to their camp.

3  
4 Other than that, that's about all I  
5 have for the Northwest Arctic.

6  
7 Thank you for you guys time. And I  
8 think it's awesome being here. It's always a benefit.  
9 I know at our last meeting in Buckland we had one of  
10 the Federal subsistence Board members at our Rural  
11 Advisory Council Meeting. He enjoyed every minute of  
12 it. I think it's a benefit to have you guys there to  
13 be able to hear our concerns and bring it back to your  
14 main meetings to be able to better understand what we  
15 as Rural Advisory Councils out there in the communities  
16 go through.

17  
18 Thank you.

19  
20 MADAME CHAIR CHYTHLOOK: Okay. Thank  
21 you, Mike.

22  
23 The next is the Eastern Interior,  
24 followed by North Slope.

25  
26 MR. FIRMIN: Hello. Good morning. I'm  
27 over here. My name is Andrew Firmin, from Fort Yukon.  
28 It's located in Game Management Unit 25 in the Yukon  
29 Flats. I'm serving as the Eastern Interior Council  
30 Secretary and our Chair and Vice-Chair have not arrived  
31 yet, so I'll be giving a brief review of our regional  
32 concerns.

33  
34 Main among them of course is chinook  
35 salmon. It's one of the mains concerns of the E-RAC as  
36 it affects a large portion of our region. We have been  
37 among the frontrunners of conservation of chinook  
38 salmon and we've been feeling the effects of the  
39 declining run since -- since I was appointed to the RAC  
40 in 2007.

41  
42 These concerns have also been focused  
43 towards fall chum salmon as they are also one of the  
44 only other abundant species of salmon available to many  
45 people in the region that we rely on heavily.

46  
47 Being a region that lies on the  
48 U.S./Canadian border, we also have many resources that  
49 we share internationally, as well as multi-regionally.  
50 Some of them include not only fish, but also caribou.

1 Some of the larger herds in our region are the  
2 Porcupine Caribou Herd and the Fortymile Herd, both of  
3 which are highway accessible from multiple points.

4  
5 We have concerns, as do other regions,  
6 as letting the leaders pass and finding solutions to  
7 those concerns as their alternating migration routes  
8 have been affecting a lot of the -- you know, the  
9 harvestability of some people. And there are many  
10 other factors involved in there with the user conflict  
11 and the different transporters and, you know, among  
12 other issues.

13  
14 There's also a -- the Council also  
15 wishes to have -- like our traditional and ecological  
16 knowledge and data, we'd like to see a lot of it -- a  
17 lot more of it incorporated in proposal analysis when  
18 it's available. I think we feel like a lot of it is  
19 overlooked a lot of times when it's -- the knowledge is  
20 there, but it's just not scientifically proven so it  
21 doesn't count in a lot of aspects. And we'd like to  
22 see some of that changed.

23  
24 Also, the -- like as with the caribou,  
25 there's a lot of hunter ethics and education to reduce  
26 a lot of user conflict is another big issue that I've  
27 heard from -- also other concerns from other RACs this  
28 morning.

29  
30 We also have some fairly low moose  
31 populations in part of our portions of our region. And  
32 they remain a concern along with the large predator  
33 populations which are not being helped in any way by  
34 the U.S. Fish and Wildlife Services proposed rules on  
35 the refuge management concerning predators. And that's  
36 going to greatly affect and reduce our methods and  
37 means and resources available to tag down some of those  
38 predators. And I believe even this past winter they  
39 were -- there's been moose kills and wolves trapped  
40 inside city limits in Fort Yukon that I know of and  
41 which is kind of astounding.

42  
43 There's also the -- our Chairperson Sue  
44 Entsminger is on the State Dahl Sheep Working Group.  
45 And we have other RAC members that aren't here today,  
46 but we have many concerns involving the dahl sheep  
47 also. But I'll let them speak to that if and when the  
48 time comes.

49  
50 Climate change or changes in climate,

1 weather patterns, and, you know, just the climate in  
2 general has been affecting many people's traditional  
3 harvest and gathering abilities. And it's also playing  
4 a big role in our seasons in trends. You know, a lot  
5 of thin ice and the changing of seasons and their times  
6 has been affecting a lot of travel, harvest  
7 opportunity, and also the migration ability of other  
8 animals.

9  
10 And when you see the birds come and go  
11 and you see the caribou come and go and how their  
12 ability to cross, you know, bodies of water, whether  
13 they're frozen, full of water or no water at all in  
14 some of them. I know this past fall I think we were --  
15 the water was higher in moose season in the fall than  
16 it was in the spring flooding season, so that was  
17 something new to me this past year.

18  
19 And I'm sure there's a few other  
20 concerns out there. Does any other Council members  
21 have any other concerns they want to point out or bring  
22 up.

23  
24 MR. GLANZ: My name is Bill Glanz. I  
25 just have to emphasize the point of road accessible.  
26 And it's nothing uncommon to see a thousand people  
27 trying to get caribou permits for a three-day season.  
28 They'll open it on Monday, close it on Wednesday night.  
29 How many caribou you guys get. Oh, they took out 1,100  
30 the last two days. It's really something that really  
31 -- and it's combat hunting. None of the locals will  
32 even attempt to go out there and try to -- thank  
33 goodness we have a month's early season only on Federal  
34 grounds where we can harvest some caribou. But you try  
35 to go out there and see the bullets bouncing off around  
36 the trees, around -- you don't want to go out there.  
37 You see 20 and 30 people surrounding ground. They'll  
38 surround a whole bunch of the caribou from town and  
39 they'll take them out till there's none of them left.

40  
41 So we finally got it put in in the  
42 summertime -- summer season to September season it's  
43 bulls only. So that saves us a lot of problems, but  
44 it's still -- it's just ongoing. And like he says, the  
45 salmon is really, really horrible. And moose is real  
46 bad now, too. I've lived in this area 30 years. Been  
47 on this Board about 11 or 12. I've got 27 moose. In  
48 the last three years I didn't even see a moose.

49  
50 So it's -- and the pressure for hunting

1 on the Yukon River -- they come in at Eagle and go  
2 downstream. They go from Fairbanks. Go to Circle and  
3 put -- then they go downstream to his area in Fort  
4 Yukon or go up to Eagle by some of the other Members'  
5 areas. So it's quite a problem down there.

6

7 But thank you, everybody.

8

9 MR. FIRMIN: Thank you, Bill.

10

11 Is there any other Eastern Interior  
12 members.

13

14 (No comments)

15

16 MR. FIRMIN: Seeing none, I'd just like  
17 to reiterate what Bill said about the highway  
18 accessibility to some of our region areas. And also  
19 the other thing that we're having difficulty with is  
20 our Porcupine Caribou Herd, which has been migrating  
21 more into inaccessible regions of the State and staying  
22 in Canada more, where it's accessible by the Dempster  
23 Highway. And the First Nations People do not have any  
24 harvest limits or start and stop dates necessarily due  
25 to the population size.

26

27 So it's difficult for people to see  
28 folks on the -- the Canadian side of the border harvest  
29 60 caribou at a time and fill up a truckload. And then  
30 hear about them being sold in Whitehorse later on while  
31 we're just -- we have to travel hundreds of miles just  
32 to hope to get a glimpse at one standing on our side of  
33 the border.

34

35 However, we do have other harvest  
36 opportunities, but those are some of our greatest  
37 concerns.

38

39 And with that, that will conclude my  
40 report.

41

42 Madame Chair.

43

44 MR. GLANZ: Excuse me one second,  
45 Andrew. I want to reiterate something else about the  
46 caribou. Canada -- I'm on a Caribou Harvest Board.  
47 And Canada has two representatives on the Board. And  
48 to this date, the Canadians have not harvested any  
49 Fortymile Caribou Herd due to the fact they say, A,  
50 your area -- well, 25A and C and all that where the

1 Fortymile Caribou Herd are at we have intense predator  
2 control. So some of our guys go out and take out six  
3 or eight wolves at a flight. This year we didn't even  
4 get -- we applied for our aerial caribou hunt -- wolf  
5 hunting, and I have yet to get my report -- my permit  
6 or anything else. So I just want to congratulate the  
7 Canadians for their participation in trying to build  
8 this herd up also.

9

10 We went from 19,000. We started a  
11 caribou hunt control to over 53,000. So it's been  
12 successful with the predator control. The Feds need to  
13 look into how good it works.

14

15 Thanks, guys.

16

17 MADAME CHAIR CHYTHLOOK: Okay. Thank  
18 you, Eastern Interior, for your report.

19

20 Now the North Slope. Our Village  
21 furtherest north.

22

23 MR. BROWER: Thank you, Madame Chair.

24

25 Good morning. My name is Harry Brower.  
26 I'm the Chair of the North Slope Regional Advisory  
27 Council.

28

29 You know, it's not too different from  
30 where we are in terms of the type of concerns that  
31 you've heard this morning. We've had multiple issues.

32

33 I think one of the ones I could relate  
34 to is the communications. It's something that we  
35 struggle to deal with in terms of how we perceive  
36 things and how on the other end of that how it gets  
37 interpreted through the Staff and then on to the  
38 Federal Subsistence Board. That's something that we've  
39 been struggling with for the -- more of the recent  
40 times.

41

42 The transition of people into the  
43 Service is an issue as well. Because you have a whole  
44 new group of people coming in when others are retiring  
45 or seeking other opportunities for employment. And you  
46 have a transition of people coming in that are new to  
47 the program.

48

49 The Federal Subsistence Management  
50 Program -- that's an issue. You know, it can be

1 somewhat daunting in the way that we see these small,  
2 little issues may not be big in a sense to somebody  
3 that comes in, but it means a lot to the resource --  
4 the subsistence user groups. Because it takes a lot of  
5 building up over time trust relationships that have  
6 been built with the previous folks that were within  
7 these -- within the organization. And I've seen that  
8 over time.

9  
10 I, too, have been in -- within the  
11 Subsistence Management Program representing the North  
12 Slope for many years.

13  
14 And some of the concerns that we've  
15 been dealing with over the regulations -- proposed  
16 regulation changes have been in regards to caribou,  
17 moose, sheep. Not too different from a lot of the  
18 areas I've heard today. Brown bears. Those are the  
19 resources that we depend on for subsistence. Caribou  
20 being one of the larger group of animals that we  
21 subsist. Because that -- the herds that normally come  
22 up to the North Slope are some of the larger groups and  
23 they transition to different areas. You know, the  
24 areas that we don't have no control over the animals,  
25 their movements, their ranges.

26  
27 And it's not the same as it was ten,  
28 fifteen years ago. Their situations are differing.  
29 They're shifting as well, as we see it with the climate  
30 change and the number of users increasing, also causing  
31 that shift to move the animals to other areas at  
32 greater distances to the subsistence hunter to --  
33 within their communities.

34  
35 And then there are some communities  
36 that are fortunate that the resources come closer to  
37 their areas. And it's for a short period of time, then  
38 that shift occurs again. The access has changed. It's  
39 not -- and that's beyond our control when that occurs.  
40 So we have to go greater distances to -- to traverse to  
41 the resource.

42  
43 I'm trying to think back. And Madame  
44 Chair and Mr. Chair, it's something that I think we  
45 really need to sit down and focus is the problem of the  
46 competition. Are there enough resources for  
47 everybody's use and what do we see in terms of how the  
48 regulators or the resource managers tend to compound  
49 things as to how they interpret their perception of and  
50 their interpretation of how to best move forward to

1 meet the needs of everyone. I think they are  
2 challenged as well.

3  
4                   So in regards to some of the  
5 communications with the global climate change impacts  
6 that affects our access to the resources. That's  
7 beyond our control and yet we try and adapt to getting  
8 to the resources when we can.

9  
10                   The other side of that picture is the  
11 number of users increasing and hunter ethics not  
12 clearly addressed is a problem.

13  
14                   You know, there's too many users for a  
15 small group of resources and none of the folks from the  
16 outside are not adhering to some of our customs and  
17 practices in terms of how we've been conducting our  
18 hunting in our local areas. And that's really  
19 demeaning in the sense to our subsistence users. It's  
20 how things are interpreted. As I stated, they all have  
21 the right to use that resources as well, but then they  
22 infringe on coming into -- coming from the outside to  
23 take the resource without really going through a hunter  
24 educational process in terms of customary, traditional  
25 uses.

26  
27                   You know, I think we've stated that  
28 many, many times to the resource managers, but it seems  
29 to be an oversight because of all the other discussions  
30 that compound the discussion points.

31  
32                   So Madame Chair, I think our access is  
33 one of our biggest issues that we continue to deal  
34 with. Yet we adapt to it. Global climate change  
35 impacting us. Availability to our fisheries. You  
36 know, we've -- we were struggling here just a couple of  
37 years about the freeze up time frame coming in too late  
38 and affecting our fisheries up north. It's really  
39 noticeable.

40  
41                   And funding to conduct research is  
42 limited. You know, I just have to think back and  
43 agree to the -- and share the same concerns. I think  
44 we really need to look back in terms of faith based  
45 management. This money is going to be an issue for us  
46 to manage these resources successfully. Go to church  
47 on Sunday, pray about it. On Monday I'll be out  
48 hunting. Money didn't seem to bother. There's no need  
49 for research. The animals take care of themselves in  
50 the sense that if they're managed right. You manage

1 the people, not the resource.

2

3                   You know, that's how I interpret  
4 things.

5

6                   Interpretation is a very vital message  
7 that needs to get passed on.

8

9                   Communications. I have to say English  
10 is a very hard language to learn. It's not an easy  
11 one. Because there's so many words in the English  
12 language that gets interpreted differently from where I  
13 speak and for the person that's listening how it gets  
14 perceived. And then their interpretation. There's  
15 other language that comes in that makes it meander left  
16 or right or whether it's accurate or not. We see that  
17 within our own region in terms of generating regulation  
18 changes or proposals for regulation changes.

19

20                   You know, this dual management we've  
21 been struggling with over time as well. It's  
22 applicability is very different on State lands and on  
23 Federal lands. The resource managers have two  
24 different schemes that they're following.

25

26                   And again the transition of people  
27 coming is to within the Federal Subsistence Management  
28 Program or the State Management Program convolute  
29 things a little bit more what we are just getting to  
30 understand and learn a little bit more of. A whole new  
31 entourage of people come in. They have their  
32 interpretation. Then we have to go and reeducate these  
33 people.

34

35                   So that's a hardship, Madame Chair, Mr.  
36 Chair, that we struggle with.

37

38                   You know, in terms of the availability  
39 of resources, it continues to shift.

40

41                   Global climate change having a presence  
42 as well.

43

44                   Regulations hindering the availability  
45 of the resource while the competition increases. We're  
46 trying to minimize the competition, but that's beyond  
47 our control because of regulations that are imposed on  
48 us.

49

50                   Yet we want to continue to have a voice

1 in the Subsistence Management Program. We take it very  
2 seriously just like the rest of the people here.

3

4                   It's life and limb. We endure the  
5 danger of going out into the elements and being out  
6 there to subsist, to provide. There's multiple reasons  
7 I've heard over the start of the meeting and a whole --  
8 probably six, seven pages of notes I've taken. You  
9 know, funding, interpretation of regulations, the  
10 customary and traditional use determinations, the  
11 process, the use of ANILCA is -- it's hardly mentioned.

12

13                   I really appreciate all what I've heard  
14 from each of the Council Member representatives that  
15 spoke about including the youth. That's very  
16 important. That's something that we continue to teach  
17 even at home. Not in the schools. At home. You know,  
18 taking the young and getting them involved with our  
19 subsistence practices. Teaching them the very key  
20 things that we -- that's brought us here today. It's  
21 something that they don't realize until they start  
22 learning more English, I suppose going into school. I  
23 do this naturally at home. And I really support that  
24 effort about getting the students, younger children  
25 involved at an early age to understand what the process  
26 is that we're dealing with today. It's much harder  
27 than years ago.

28

29                   Madame Chair, I've exceeded my time,  
30 but I have a lot more communications and I'll share  
31 them with you along with my Council from the North  
32 Slope during these work sessions.

33

34                   Thank you.

35

36                   MADAME CHAIR CHYTHLOOK: Okay. Thank  
37 you, Harry.

38

39                   Our ten regions have completed their  
40 reports. Those of you that are visiting have just  
41 heard the short synopsis of what our ten regions go  
42 through every time we have a meeting. We have so many  
43 issues that you have learned just from the ten minutes  
44 that our regions have given reports to. And I think  
45 that I'd like to touch on a couple of them just for a  
46 bit.

47

48                   One is CT. I heard one of the  
49 reporters say that that's the tool that needs to be  
50 used. The other one -- the most interesting one when

1 we have our Regional Council meetings is the  
2 traditional and ecological knowledge that these hunters  
3 -- these people that live the life give us. And you  
4 heard that today.

5  
6 And so that's the -- I guess the crux  
7 of having these Regional Advisory Council meetings is  
8 to, you know, go through our issues in each region.  
9 And all the regions have similar issues -- funding,  
10 climate change, and all that. But when all is said and  
11 done and our hopes and wishes go to the Federal  
12 Subsistence Board people -- I've attended some of those  
13 and they are very I guess helpful in understanding our  
14 needs in each of our regions.

15  
16 And I think we have what, five minutes  
17 to break while the next group -- the North Pacific --  
18 what, research?

19  
20 UNIDENTIFIED VOICE: Fisheries  
21 Management Council.

22  
23 MADAME CHAIR CHYTHLOOK: Management  
24 Council is setting up. So let's take a five-minute  
25 stand up stretch. Don't leave the room too long  
26 because we're going to start up within five minutes.

27  
28 (Off record)

29  
30 (On record)

31  
32 MADAME CHAIR CHYTHLOOK: Okay. North  
33 Pacific Fishery Management Council, are you all set to  
34 go. Okay. Let's get started.

35  
36 MR. MACLEAN: Good morning, Madame  
37 Chairman, Mr. Chairman, my name is Steve MacLean. I'm  
38 the protected species coordinator and also a fishery  
39 analyst for the North Pacific Fishery Management  
40 Council. And we're very pleased to be able to be here  
41 today to give you an update on some of the recent  
42 actions that have occurred relative to bycatch of  
43 salmon and halibut in the groundfish fisheries around  
44 Alaska and to provide you some information about  
45 upcoming actions.

46  
47 I'm going to go ahead and present the  
48 first part of this presentation, but I'm lucky that  
49 I've got two of our other analysts with me. And I'll  
50 ask them to introduce themselves at this time.

1 MS. STRAM: Thank you.

2

3 Madame Chair and members of the  
4 Councils, my name is Diana Stram and I am a fishery  
5 management plan coordinator with the North Pacific  
6 Fishery Management Council. And also a fishery analyst  
7 and I work on a lot of different bycatch issues. A lot  
8 of issues in the past with respect to salmon bycatch in  
9 the Bering Sea, pollock fishery, and now currently on  
10 some halibut bycatch actions in the Bering Sea Aleutian  
11 Islands groundfish fisheries as well.

12

13 MR. CUNNINGHAM: My name is Sam  
14 Cunningham. I'm an economist and a analyst at the  
15 Council. I've been working recently primary with the  
16 Gulf trawl fisheries. Also some actions related to  
17 observer coverage and monitoring. I've been in Alaska  
18 four years and this is my first time at this meeting,  
19 so thanks for having us.

20

21 MR. MACLEAN: Very briefly, here's an  
22 outline of what we're going to present today. First,  
23 an overview of the Council and its process, which is  
24 what I'll be presenting to you. I'll then hand this  
25 presentation over to Diana, who will talk about the  
26 Bering Sea salmon bycatch, information about the  
27 genetics of salmon that are caught as bycatch, and some  
28 information about the Bering Sea Aleutian Islands  
29 halibut bycatch. We'll also touch on the prohibited  
30 species donation program. After that, Sam will go  
31 ahead and give us some information about the Gulf of  
32 Alaska trawl bycatch management program and then I'll  
33 come back and have a few items that the Council is  
34 considering shortly or currently. Let you know about  
35 those items and how you can provide testimony and  
36 information to the Council.

37

38 The North Pacific Fishery Management  
39 Council is one of the eight Councils that was  
40 established nationwide to manage the Federal fisheries  
41 of the U.S. waters. With the National Marine Fisheries  
42 Service, the Council jointly manages offshore Federal  
43 fisheries off of Alaska. And those are in waters from  
44 3 to 200 miles offshore.

45

46 The Council makes recommendations to  
47 the National Marine Fisheries Service in terms of the  
48 regulations put in place to manage those fisheries and  
49 then NMFS, if appropriate, will approve and implement  
50 and enforce those regulations. In many cases, the

1 management of these fisheries are coordinated with the  
2 State of Alaska and in some cases they are jointly  
3 managed with the State of Alaska.

4  
5           The Council is composed of 15 total  
6 members representing the various stakeholders for the  
7 Federal fisheries. There are 11 voting members, four  
8 designated seats to the National Marine Fisheries  
9 Service, one to the Alaska Department of Fish and Game  
10 Commissioner, and then also designated seats for the  
11 commissioners of the Washington and Oregon Departments  
12 of Fish and Wildlife.

13  
14           There are also seven appointed seats  
15 that are nominated by the governors of the State of  
16 Alaska and the State of Washington. There are five  
17 appointed seats for the State of Alaska, two appointed  
18 seats by the governor of Washington. Those appointed  
19 seats are nominated by the governors of those States to  
20 the Secretary of Commerce, who will then approve and  
21 appoint those members to our Council.

22  
23           There are also four non-voting advisory  
24 seats on the Council. The U.S. Coast Guard, U.S.  
25 Department of State, the U.S. Fish and Wildlife  
26 Service, and the Pacific States Marine Fisheries  
27 Commission hold those four advisory seats.

28  
29           The process that we follow when we're  
30 considering new regulations or amending regulations for  
31 fisheries management in Alaska is a very public  
32 process. And there are opportunities for public  
33 involvement throughout this process. What you see in  
34 front of you is a schematic of a typical process that  
35 the Council might go through in order to get from a  
36 proposal to implementation of regulations.

37  
38           A proposal can come from the public,  
39 can come from a stakeholder, can come from one of the  
40 Council members. There will be a review of that  
41 proposal where a Council would develop a problem  
42 statement. Why. What is the problem that the Council  
43 is wishing to address. They will develop alternatives  
44 for multiple ways that we could consider to addressing  
45 that problem.

46  
47           Often discussion papers which will  
48 bring out some of the things for consideration, some of  
49 the points that the Council might need to consider as  
50 they are developing their regulation. And often those

1 will go to a Council committee. And a committee will  
2 provide input to the Council. At all of those stages  
3 there is opportunity for public input.

4  
5           Once the Council has determined that  
6 they want to move forward, an analysis of the  
7 alternatives that the Council has identified will take  
8 place. This is a NEPA process, which you're all  
9 familiar with I'm sure, where we have the opportunity  
10 to refine the alternatives, analyze what some of the  
11 impacts of those alternatives would be on the direct  
12 problem, and also on some of the other issues that  
13 might not be directly related, but would also be  
14 impacted by the proposal.

15  
16           Once the Council has selected a  
17 preferred alternative, that goes to rule making, at  
18 which point the National Marine Fisheries Service takes  
19 over. And they will develop the rules and the  
20 regulations in order to implement the change that the  
21 Council wishes to make.

22  
23           They will then go the Secretary of  
24 Commerce, who will review the analysis and review the  
25 potential change. And if approved be moved to  
26 implementation where the new rules are put into  
27 regulation. And that moves forward for the future.

28  
29           All of these -- as I said, all of these  
30 opportunities where you see the arrows are  
31 opportunities for public involvement. And we would  
32 encourage you to take advantage of those as much as you  
33 can.

34  
35           The Council was established in the  
36 Magnuson-Stevens Fisheries Management and Conservation  
37 -- sorry -- Fisheries Conservation and Management Act.  
38 And also included in that Act are ten national  
39 standards that the Council must consider to ensure the  
40 conservation and effective management of the fisheries  
41 resources of the United States.

42  
43           The Council must consider and balance  
44 all ten of those national standards. We don't have  
45 them all listed here. What we have listed here are the  
46 three national standards that are related to bycatch  
47 and management of bycatch in these fisheries.

48  
49           National standard nine requires that  
50 the Councils and the Agencies minimize bycatch to the

1 extent practicable. Knowing that it is generally  
2 impossible to remove bycatch and reduce bycatch to  
3 zero, we are under direction to reduce it and minimize  
4 it as much as we can.

5  
6 Our first -- national standard one is  
7 to present over-fishing while achieving the optimum  
8 yield from each fishery. So we are at the very  
9 beginning encouraged and required to ensure that the  
10 resources -- the fisheries resources under our  
11 management are not over-fished.

12  
13 And then finally we've also got to  
14 consider the importance of resource to fishing  
15 communities and minimize the economic impacts to the  
16 extent practicable. And all of these things must be  
17 considered as the Council moves to take any action,  
18 particularly in this case for reducing bycatch.

19  
20 Salmon and halibut and also crab and  
21 herring are prohibited species in our fishery  
22 management plans, which means that we are not -- that  
23 none of the fishing companies or fishermen who catch  
24 salmon or bycatch incidental to other fisheries are  
25 allowed to keep those fish. They must be avoided,  
26 cannot be sold or retained except for counting so that  
27 we can keep track of how many are caught. Although  
28 currently some salmon and halibut are donated to food  
29 banks through a program that we'll be discussing a  
30 little bit later.

31  
32 In addition to placing these on  
33 prohibited status, the Council has implemented  
34 additional measures to reduce the bycatch of salmon and  
35 halibut in these groundfish fisheries. We've got some  
36 innovative programs with bycatch caps, also known as  
37 PSC limits. PSC stands for Prohibited Species Catch.  
38 There are also time and area closures that can be  
39 managed by the fisheries to close certain areas where  
40 bycatch appears to be higher than other areas or in  
41 areas where fish are known to occur and bycatch is  
42 known to occur. Those areas can be closed to prevent  
43 that.

44  
45 The Council has also encouraged the  
46 industry in some innovative ways to reduce bycatch  
47 through their own gear modifications and  
48 communications. In other words, we're asking the  
49 industries to communicate within themselves to let  
50 their members know where they're running into salmon or

1 where they're encountering halibut. And also  
2 encouraging those industries to develop new gears and  
3 modifying gear that would prevent some of the bycatch.  
4 And we'll talk about some of those in a little bit.

5  
6 That is the general introduction to  
7 what we're going to be talking about. At this point I  
8 will turn it over to Diana Stram to take the next  
9 section.

10  
11 MS. STRAM: Thank you.

12  
13 So I'm going to go over some of the  
14 actions that the Council has taken recently on bycatch  
15 of salmon in the Bering Sea pollock fishery, chinook  
16 and chum salmon. And then talk about some additional  
17 actions for halibut bycatch again the Bering Sea  
18 groundfish fisheries. And then Sam will discuss what's  
19 going on in the Gulf of Alaska.

20  
21 So to remind you -- and we've come  
22 before you several times in order to try to provide  
23 information and solicit input from the Councils on  
24 actions that our Council is taking to address salmon  
25 bycatch in the pollock fishery. This is just focused  
26 on the Bering Sea pollock fishery and that fishery is  
27 the largest fishery by volume in the United States. It  
28 takes almost entirely pollock. In its catch, however,  
29 it does catch bycatch of chinook salmon and chum  
30 salmon.

31  
32 The fishery is split into two seasons.  
33 And this just shows you where the concentration of the  
34 fishery is. So where you see the brighter red is where  
35 more of the fishery catch is concentrated, so for  
36 pollock catch. And the winter season begins in late  
37 January and is usually wrapped up by the middle of  
38 April. By regulation it can go longer, but in general  
39 it is generally wrapped up early April. The summer  
40 fishery then begins in early June and is done usually  
41 around mid-October, but it can go until the end of  
42 October to catch their quota.

43  
44 The winter fishery tends to be more  
45 concentrated near shore, north of Unimak Island. The  
46 ice cover keeps the fishery from prosecuting much  
47 further than the Pribilofs in most of the winter. The  
48 summer fishery then extends all the way up to the  
49 Russian border, along the shelf edge where you see the  
50 yellow markings. While the -- there's different fleets

1 in the pollock fishery so that the shore side catcher  
2 vessels are still concentrated closer to shore and  
3 delivering to processors onshore.

4  
5 For salmon bycatch, the fishery  
6 intercepts chinook salmon in both the winter and the  
7 summer fishery. But chum salmon is only intercepted  
8 during the summer fishery.

9  
10 So this just gives you the numbers then  
11 in terms of number of fish that have been caught in the  
12 pollock fishery annually for both chinook and for chum.  
13 So for chum the red arrow and the red dots. For  
14 chinook the blue lines and the blue numbers. And just  
15 to basically orient you towards the fact that they've  
16 -- it's been variable over the years, but using  
17 previous management measures there was never an overall  
18 limit on the actual number we managed by area closures  
19 when a limit was reached.

20  
21 And so starting in about 2005 the  
22 Council has been aggressively addressing the overall  
23 mortality of salmon taken in the Bering Sea pollock  
24 fishery. We reached an historical high in 2005 of  
25 700,000 chum. That then rapidly declined. Over the  
26 next several years, the Council was in the process of  
27 looking at different management measures. And then in  
28 2007, as most people are aware, there was a historical  
29 high of bycatch of chinook salmon in the pollock  
30 fishery.

31  
32 Since that time the Council  
33 restructured how our management program for both of  
34 those species works in order to better reduce bycatch  
35 in -- of both species in the pollock fishery. And I'll  
36 provide you a little bit of an overview as to the two  
37 major decisions that have been made in recent years in  
38 order to do so.

39  
40 Just as a note that the 2016 bycatch  
41 isn't listed up here. We're in the middle of the A  
42 season -- the winter season right now. And so far to  
43 date in 2016, the pollock fishery has taken about  
44 almost 8,500 salmon. That is a little bit more than to  
45 this date last year in the A season.

46  
47 One thing that Steve noted and that is  
48 being developed and used more extensively in the  
49 pollock fishery now are excluders. So salmon excluders  
50 is basically a device. It's a hole in the pollock

1 trawl net in front of the caught end where salmon being  
2 better swimmers than pollock are able to sense that  
3 there's a rest area -- a lee in the current. And  
4 they're able to move over to where that hole is and  
5 escape.

6  
7                   So the industry took the initiative  
8 about ten years ago to start development of these  
9 excluders and have worked extensively to test them in  
10 order to -- for better -- for them to be more and more  
11 effective as they come up with different designs of how  
12 best to develop this. So this has been a really  
13 promising development in allow salmon -- both chum and  
14 chinook salmon to escape the trawl net and not get  
15 retained as bycatch.

16  
17                   Amendment 91 is a program that was put  
18 into place in 2011. And this is following several  
19 years of development and again directly in response to  
20 the high bycatch levels in 2007. Under this Amendment  
21 -- under this management program, it's the first time  
22 that what we call a hard cap was put into place on the  
23 pollock fishery so that rather than a limit being  
24 established which would close an area, these limits  
25 that were established and the fishery is managed on  
26 now, when an individual sector reaches their seasonal  
27 or annual limit, they are closed out from fishing for  
28 pollock for the remainder of that season or year.

29  
30                   The program has a complicated structure  
31 that is explicitly meant to allow the fishing industry  
32 to not reach for the higher cap. So rather than  
33 encouraging some sort of a race for bycatch by setting  
34 a hard limit, the program is structured with two  
35 different limits so that the lower level is more of a  
36 performance standard that the fishery is not intended  
37 to reach. So they have incentive programs that are  
38 specifically designed with different management  
39 measures embedded in them in order to encourage each of  
40 the sectors to have the lowest bycatch possible and  
41 well below the cap levels that were established.

42  
43                   So on an annual basis, the industry  
44 presents these programs to the Council and the Council  
45 comments back to the industry on how effective they  
46 believe the management measures put into place are at  
47 reducing bycatch. And the rationale for that is that  
48 right now for a variety of reasons we are at relatively  
49 historically low bycatch levels of salmon. But because  
50 the Council explicitly requested that the industry

1 continue to develop measures to reduce bycatch at  
2 whatever level of encounter in the ocean, they have  
3 different measures in place in order to make sure that  
4 everybody is trying to avoid salmon every day that  
5 they're out fishing.

6  
7                   And some of the changes that were put  
8 into place in 2015 that I'll get into were specifically  
9 designed to look at the individual vessel basis in the  
10 pollock fishery to make sure that every vessel is  
11 trying to avoid salmon every day that they're fishing  
12 and they're not just looking at an overall cap level.

13  
14                   Some additional provisions that went  
15 into place when this program was put into place in  
16 2011. There is 100 percent observer coverage on every  
17 vessel in the pollock fleet. Previously, there was a  
18 proportion of the fleet that had less than 100 percent  
19 coverage and in order to implement this program, the  
20 entire fleet is at 100 percent coverage.

21  
22                   Another change that was put into place  
23 is a complete census of all salmon that are observed.  
24 So every salmon that is brought either onboard a  
25 catcher processor or delivered to a processing plant,  
26 there is a full, whole house sample that is -- census  
27 that is taken so that every single salmon is counted.

28  
29                   Additionally, increased genetic  
30 sampling for stock of origin, which is what I'll go  
31 into in a minute in terms of where these salmon are  
32 coming from. So part of this provisions of this  
33 program as well increase the genetic sampling for stock  
34 of origin. And this is in both the Bering Sea pollock  
35 fishery, as well as in the Gulf of Alaska as well.

36  
37                   The geneticists provide an annual  
38 report to the Council on the stock of origin from the  
39 fishery. That will happen in April that we'll go into.

40  
41  
42                   And then the industry reports to the  
43 Council the annual reports of how their programs are  
44 functioning to reduce bycatch at lower levels, as well  
45 as an audit of whether or not any -- there was any  
46 issues with compliance to the programs themselves.

47  
48                   If you recall, we came to many of the  
49 RACs last February, March to inform you and solicit  
50 input as to changes that the Council was considering at

1 the April meeting in 2015 in relation to the Amendment  
2 91 Bycatch Management Program for chinook. What we  
3 provided to the Councils and the public was an analysis  
4 of a variety of different measures that were under  
5 consideration.

6  
7 And given the low -- the concerns with  
8 the Western Alaska chinook stocks that continue to be  
9 an issue today, the Council then looked at how we could  
10 make more stringent measures on this program, even  
11 though it had only been in place for three years at  
12 that point.

13  
14 So some of the changes then that came  
15 out of the Council meeting in April. Previously chum  
16 and chinook bycatch were managed separately under  
17 separate management measures in the pollock fishery.  
18 They are now combined under one, single management  
19 structure. The incentive plans, which are what we call  
20 those industry-run programs that have additional  
21 measures that they implement, the Council requested  
22 that they include more stringent regulations in  
23 September and October when that's the time period where  
24 the chinook bycatch tends to increase over that area.  
25 And the Council also required that all of the vessels  
26 use salmon excluders when fishing during these times.

27  
28 There is a new measure where in a year  
29 of low chinook abundance that is provided -- that  
30 information is provided to the Council by the State of  
31 Alaska. And if the indication is that it is a year of  
32 chinook -- low Western Alaska chinook abundance, there  
33 are lower bycatch caps that now would go into place in  
34 those years to which the pollock industry would be  
35 held.

36  
37 And another measure that was also  
38 included -- in order to provide more flexibility to the  
39 pollock fleet to avoid chinook, the Council moved some  
40 of the pollock quota into the winter season, which  
41 gives them an ability to -- if they are fishing in the  
42 winter at low bycatch levels, they can catch more of  
43 their catch during that time and then not have to fish  
44 harder at the end of the summer season when we know  
45 that the chinook bycatch is higher.

46  
47 So those were all measures that were  
48 taken by the Council in April and that will go into  
49 place in 2016.

50

1 I'm just going to review some of the  
2 recent information on genetic studies. Again, the  
3 stock of origin, both the Bering Sea and in the Gulf of  
4 Alaska.

5  
6 Some of you may be familiar with this  
7 map. This is the baseline of chinook salmon genetics.  
8 These circles then represent the overall aggregate  
9 stock of origin to the extent that they can be resolved  
10 right now for genetic purposes. So it's not possible  
11 to resolve an individual salmon necessarily back to an  
12 individual salmon stream genetically. But the overall  
13 groupings of ones that seem similar are designated by  
14 the geneticists in a baseline. And that baseline under  
15 these groupings is then used to determine from which  
16 area the salmon are coming from.

17  
18 And so what you would mostly note is  
19 that if you see this very large yellow grouping -- I  
20 guess I don't have a pointer. The large yellow  
21 grouping here is the Coastal West Alaska group. So  
22 that includes nearly all of the rivers in Coastal West  
23 Alaska with the exception of the Middle Yukon and the  
24 Upper Yukon. The Upper Yukon can be resolved  
25 individually as can the Middle Yukon. And progress is  
26 being made, but they're not there yet to resolve the  
27 Lower Yukon separately as well as Norton Sound stock  
28 separately.

29  
30 So in the next several years we may be  
31 able to resolve those -- the Yukon as a single river --  
32 as Middle and Lower separately from the Upper Yukon and  
33 the Norton Sound stock separately from the Kuskokwim,  
34 Nushagak, and those rivers in there. But currently  
35 these are the areas that can be resolved separately.

36  
37 So again the geneticists using their --  
38 they provide the Council on an annual basis an update  
39 on the stock or origin of chinook and chum stocks in  
40 the Bering Sea pollock fishery, as well as now in the  
41 Gulf of Alaska. They are usually about a year behind  
42 in processing the samples they receive from the pollock  
43 industry, so at our April meeting the Council will be  
44 receiving an update on the results of the 2014 pollock  
45 fishery.

46  
47 And in general these results are quite  
48 similar to things that we've seen in the past, where  
49 the largest proportion of salmon -- by-caught salmon  
50 are coming from this large group in Coastal West

1 Alaska, so the Western Alaska chinook still makes up a  
2 very high percentage of the overall bycatch. And it's  
3 ranged in the past from 52 percent to about 56 percent.  
4 And those are still similar to what we've seen  
5 previously.

6  
7 Other things that you might be  
8 interested in, in terms of the proportion to the Upper  
9 Yukon, represents about four percent annually of the  
10 bycatch. For the Upper Yukon, that's one of those  
11 stocks where -- or one of the bycatch where when we  
12 look at the difference between the winter fishery and  
13 the annual -- comparing the winter fishery with the  
14 summer fishery -- the bycatch in the Upper Yukon is  
15 higher proportion in the winter fishery than it tends  
16 to be in the summer fishery. And a lot of that is  
17 thought to be fishing closer to the Pribilofs during  
18 the winter season and catching a higher proportion. So  
19 annually it's about four percent, but that number is  
20 slightly higher in the winter and slightly less in the  
21 summertime.

22  
23 One thing that the Council has been  
24 requesting of the geneticists to the extent possible is  
25 to look at more spacial resolution of the bycatch. So  
26 what you see in this lower panel are the management  
27 areas that NMFS defines catch by in both the Bering Sea  
28 and the Gulf of Alaska. They're very large areas. And  
29 the Council requested that the geneticists look to see  
30 if they can look at individual areas. So instead of  
31 telling us the proportions across the entire Bering  
32 Sea, can they look at these individual areas to see if  
33 there are differences.

34  
35 So as a first cut at this then, these  
36 areas that are highlighted in red -- 5-17 and 5-09 --  
37 they went back and looked to see if they could look at  
38 changes from the A season to the B season, as well as  
39 from one area to the other. And that's what they're  
40 providing at this point. And you do see a little bit  
41 of variability particularly between the 5-09 in the A  
42 season and 5-17 in the B season in terms of the  
43 relative proportion of the Western Alaska stocks.

44  
45 We are -- one item that will be brought  
46 forward at the April Council meeting in relation to  
47 this is a working paper from a work group that was  
48 designated by the Council to try to look to see if  
49 there's a better way to look at salmon bycatch  
50 genetically in areas in the Bering Sea. And so we're

1 looking now at resolving to much smaller areas to  
2 what's called an ADF&G stat area, which is a much  
3 smaller grid across the Bering Sea. And we're  
4 evaluating the possibilities of resolving the genetics  
5 on much smaller spatial scales so we can look at how  
6 things vary in time and space.

7  
8 We also receive information on the  
9 genetic stock of origin of the chum bycatch in the  
10 pollock fishery. Here the situation is much different  
11 in that the majority -- and this has held up from year  
12 to year. The majority of the bycatch of chum is coming  
13 from Asian origin stocks, so Japan and Russia. And  
14 primarily those are hatchery releases from those  
15 countries. So we don't see very much of Western Alaska  
16 in the chum bycatch. A much lower proportion. On  
17 average about 18 percent. And then the Middle and  
18 Upper Yukon make up about two percent of that bycatch.

19  
20 One thing that we've provided for the  
21 Council for chinook and chum in terms of allowing them  
22 to get an idea of what the relative impact on the runs  
23 themselves are of the bycatch is we've looked at adult  
24 equivalent analysis. So looking at how many of those  
25 fish would be returning to the rivers in each of the  
26 years of the bycatch and what's the relative impact of  
27 the bycatch to those streams of origin.

28  
29 In order to do this, there's  
30 substantial information that we require from both the  
31 observer program, as well as the maturity of the -- in  
32 the rivers themselves. So we look at the age of the  
33 fish in the bycatch. We have excellent information  
34 from our observer program on the length of the fish and  
35 we use an age length key to estimate what the age of  
36 the fish are. We need to know that because not every  
37 fish that's caught as bycatch is returning to a river  
38 in that year, so we use the ages to help figure that  
39 out.

40  
41 We also need a maturity by age for the  
42 returning fish. So while the majority of the fish that  
43 are caught are around three and four-year olds in the  
44 ocean, the overall ages range from about three to  
45 seven-year olds. And so what we need is the maturity  
46 schedule for the three, four, five, six, seven-year old  
47 fish because each of those fish has an estimated  
48 proportion returning to the river in that year.

49  
50 And then with that information we then

1 apply the stock composition information from the  
2 bycatch based on the genetics that we just discussed.  
3 And in doing that, then we try to estimate what the  
4 impact rate is to those river systems.

5  
6                   Unfortunately, we are limited somewhat  
7 by both the large area over which genetics are  
8 estimated and the estimates of the total run strength  
9 of all of the chinook rivers in that area. So we have  
10 to do it by somewhat clunky measures because we are  
11 stuck with the Coastal West Alaska grouping and we  
12 combine all the total runs for ever river in Coastal  
13 West Alaska to get an estimate of the overall run.

14  
15                   So based on that, we did this  
16 estimation for 2003 through 2012. And we looked at  
17 what the range of impact rates were to those rivers  
18 over that time period. And what you can see is a  
19 general range for Coastal West Alaska of about 1.6  
20 percent to almost 8 percent. And again the highest  
21 impact rate was in the year following the largest  
22 amount of bycatch. So even though we had a year in  
23 2007 with the highest historical bycatch, that  
24 propagates forward so that there is a lag in the fish  
25 that are returning. So we had the highest bycatch  
26 year, but we had the highest impact the following year  
27 to those rivers themselves.

28  
29                   So since that time the bycatch in the  
30 pollock fishery has been at much, much lower levels, so  
31 the rates that we've seen -- the impact rates we've  
32 seen since the new program went into place are lower  
33 and on average of about one and a half to two percent.  
34 And again that's direct result of where the bycatch  
35 levels have been recently and the fact that with these  
36 caps in place you can't have an impact rate that we had  
37 in the past because the bycatch would never be able to  
38 be that high again.

39  
40                   We also looked at chum impact rates.  
41 These are again on a much lower level. We looked at  
42 them for Coastal West Alaska and the Upper Yukon, again  
43 understanding that the majority of the chum bycatch is  
44 not from Western Alaska, so those rates are also quite  
45 low.

46  
47                   This is the first year the genetics  
48 based on their new sampling have been able to look at  
49 estimating the stock composition in the Gulf of Alaska  
50 fisheries. They've had some information in the past,

1 but they've never been able to come up with an actual  
2 estimate for the stock composition.

3  
4                   So because that, this year is the first  
5 year that we have a report on this. And what we find  
6 in general -- it's a different situation than in the  
7 Bering Sea. Here the majority of the bycatch is coming  
8 from the West Coast of the United States and British  
9 Columbia. Very small proportion to Southeast Alaska or  
10 to the Northwest Gulf of Alaska stocks and almost  
11 nothing from the Western Alaska stocks in the Bering  
12 Sea.

13  
14                   One thing that the industry did to try  
15 to help facilitate some of these stock composition  
16 estimates is two fisheries in the Gulf of Alaska in  
17 2014 voluntarily took -- censused all the salmon that  
18 was provided to the processor and took genetic samples  
19 of those salmon to get a better estimate of while the  
20 -- these estimates here are for the pollock fishery  
21 across the Gulf of Alaska, these samples here were from  
22 two different fisheries, the rockfish fishery and the  
23 arrowtooth flounder fishery that operate in different  
24 areas. And this just show you where they operate. One  
25 of them operating off of Kodiak and the other closer to  
26 Sand Point.

27  
28                   And the stock composition from these  
29 fisheries is a little bit different than what we see  
30 from the stock composition in the pollock fishery.  
31 There's a much higher proportion of the West Coast of  
32 the United States, a lower proportion from British  
33 Columbia, but again a very small proportion from any of  
34 the Gulf of Alaska stocks, and nothing in the Bering  
35 Sea Western Alaska stocks.

36  
37                   We provided these slides for you.  
38 There's links here for more information. We do post  
39 all of the genetics information on our website. We  
40 also post any analyses for looking at the impacts of  
41 management measures the Council's considering. And so  
42 there's a lot of information that you can find on our  
43 web page if you are looking for that.

44  
45                   The next thing I'd go over are some  
46 halibut bycatch management actions that are ongoing in  
47 the Bering Sea. Just to remind you, the management of  
48 halibut is different in terms of the way we manage  
49 groundfish fisheries.

50

1                   We have coordinated management with the  
2 International Pacific Halibut Commission in order to  
3 manage halibut and so the IPHC is responsible for the  
4 stock assessment. So for assessing the size of the  
5 overall halibut stock -- and that is one, single coast-  
6 wide stock, so that includes all of the halibut in the  
7 areas of the West Coast of the United States, including  
8 Alaska and the Bering Sea, as well as in Canada.

9  
10                   So they come up with the annual  
11 assessment of that entire coast-wide halibut stock and  
12 then the IPHC also establishes the catch limits for the  
13 directed halibut fisheries and the apportionment to the  
14 IPHC management area. So that includes across the West  
15 Coast of the U.S., Canada, Gulf of Alaska, and the  
16 Bering Sea.

17  
18                   And in order to that, their catch  
19 limits accommodates all sources of halibut mortality.  
20 That includes a mortality from their commercial catch,  
21 the directed catch, the wastage that they estimate in  
22 the directed catch, bycatch. They accommodate the  
23 bycatch that is taken in the areas over which the  
24 halibut stock is, as well as subsistence catch.

25  
26                   The North Pacific Council then is one  
27 of the councils that also addresses halibut. Here in  
28 Alaska, the North Pacific Council is responsible for  
29 the allocative decisions about harvest privileges for  
30 directed halibut and then bycatch management in the  
31 groundfish fisheries. So we are not responsible for  
32 the assessment of the halibut stock, nor how the catch  
33 limits for the halibut stock are assigned. But we do  
34 interface with the IPHC and we are directly responsible  
35 for how bycatch of halibut in our groundfish fisheries  
36 is managed.

37  
38                   And currently bycatch of halibut in our  
39 groundfish fisheries is managed by prohibited species  
40 catch limits in both the Gulf of Alaska and the Bering  
41 Sea.

42  
43                   This just shows you in terms of the  
44 halibut bycatch the mortality by all gear types from  
45 2006 to 2015 in the Bering Sea Aleutian Islands  
46 groundfish -- all of the groundfish fisheries in the  
47 Bering Sea Aleutian Islands. And notably you see this  
48 decline here in 2015. The Council has been taking  
49 recent actions to both encourage the industry to reduce  
50 their bycatch voluntarily, as well as a recent action

1 to reduce the overall catch limit that is allowed for  
2 the total mortality in the Bering Sea groundfish  
3 fisheries.

4  
5 This action the Council took in June of  
6 2015. And this table just shows you what the old  
7 prohibited species catch limits were by the sectors of  
8 the fishery. And then in 2015, in June, the Council  
9 reduced each of those limits by a certain amount for an  
10 overall reduction of over 20 percent in the overall  
11 limit. And that action that was taken in June of 2015  
12 is -- will be in place in 2016, so the fisheries now in  
13 the Bering Sea Aleutian Islands are operating under a  
14 reduced catch level. And in particular, the fishery  
15 that has the highest bycatch of halibut was reduced by  
16 25 percent.

17  
18 The Council has a lot of -- a wide  
19 range of different halibut actions that it is  
20 addressing at different times. Specific to the Bering  
21 Sea Aleutian Islands then, there -- well, the Council  
22 just recently took this bycatch reduction measure in  
23 June. The Council is continuing to approach a  
24 different way to management halibut bycatch in the  
25 Bering Sea Aleutian Islands and specifically requested  
26 that analysts come back to them with some -- with a  
27 range of ideas for how we could manage halibut bycatch  
28 based on the abundance of halibut.

29  
30 So right now our cap levels that were  
31 put into place previously based on historic levels and  
32 then reduced, but are not tied to fluctuations in the  
33 halibut biomass. And so the Council is now initiated a  
34 work group and we are providing a discussion paper of  
35 different measures by which you could manage halibut in  
36 the Bering Sea Aleutian Islands based on the abundance  
37 of halibut, so that they would be directly tied. So  
38 that when it's both -- both higher and lower amounts  
39 based on the overall assessment of halibut.

40  
41 The Council has initiated a halibut  
42 framework as a way to coordinate with the IPHC for  
43 increased coordination on different actions of interest  
44 to both groups. That halibut framework has been  
45 reviewed at several Council meetings and will again be  
46 on the Council's agenda at this upcoming April meeting.

47  
48 The Council has requested that the  
49 trawl flatfish fisheries include additional voluntary  
50 measures to reduce their halibut bycatch and to report

1 back to the Council on an annual basis as to what their  
2 bycatch was and whether or not their management  
3 measures were effective. So that went into place in  
4 December and the fleet reported back to the Council in  
5 December of 2015 on that and will continue to do so.

6  
7 And then finally the Council is also  
8 working with the IPHC to look at how to assess discard  
9 mortality rates. So that's a really important rate in  
10 terms of getting a better idea of what that true rate  
11 is really affects what the estimate of mortality is in  
12 all of the groundfish fisheries. So that will also be  
13 brought to the Council in April.

14  
15 As Steve mentioned in his introduction,  
16 there is a prohibited species donation program. And  
17 this is an organization called SeaShare. And SeaShare  
18 since 1993 has worked with fishermen, processors, and  
19 the National Marine Fisheries Service to establish this  
20 donation program. And they are the only organization  
21 that is authorized by the National Marine Fisheries  
22 Service to retain and distribute prohibited species  
23 catch fish. And it is a program that is designed for  
24 hunger relief. Otherwise, the -- as Steve mentioned,  
25 because salmon and halibut are prohibited species, they  
26 cannot be retained or sold. They can be donated,  
27 however, to a food bank program.

28  
29 And in recent years there's been a lot  
30 of effort to bring the distribution of those salmon and  
31 halibut back to the State of Alaska. Previously, they  
32 -- because SeaShare is based in the Puget Sound area,  
33 much of the food bank distribution was going to that  
34 Seattle-based area because that's where they were  
35 based. However, one of the things that came out of the  
36 Amendment 91 analysis was the recognition that those  
37 fish were not coming back to the State of Alaska.

38  
39 And so since that time the fleet and  
40 SeaShare have worked together to establish donation  
41 centers in the State of Alaska. So they need these  
42 distribution centers in this state in order to then  
43 distribute within the State. So since that time  
44 they've established primary distribution locations in  
45 Anchorage, Cordova, Kenai, Kotzebue, Juneau, Fairbanks,  
46 Nome, and Galena. And then they have also then worked  
47 -- they are working towards a distribution center in  
48 Western Alaska, but they have also worked with the NANA  
49 Corporation and Kawerak in order to increase the  
50 distribution from those centers to other Western Alaska

1 communities. So you'll see those listed here at the  
2 base.

3  
4 In 2015, all of those communities were  
5 able to have the donated fish brought into those  
6 communities. And that was working with again these  
7 industries as well as SeaShare.

8  
9 And then finally they are a 501(c)(3).  
10 They are a privately funded organization and so they  
11 depend on the donations by the fishing fleet. The  
12 fleet itself must pay for all processing costs  
13 associated with it, so these are the participants and  
14 the donors that are funding this program basically.

15  
16 And then I will turn it over to Sam to  
17 go over the gulf of Alaska.

18  
19 MR. CUNNINGHAM: Thanks. I wanted to  
20 talk to the Councils about several recent bycatch  
21 actions the Council has taken for Gulf of Alaska  
22 fisheries, particularly the trawl fishery and also some  
23 of the hook and line flatfish -- or sorry -- cod  
24 fisheries.

25  
26 And similar to as Diana described in  
27 the Bering Sea, these actions regulate the trawl  
28 fisheries and they were put in place in recognition of  
29 the importance of these prohibited species resources to  
30 all types of users. And Diana gave you a good look at  
31 what our best available information is on the genetic  
32 stock of origin on, for example, chinook salmon that  
33 are encountered in Gulf of Alaska trawl fisheries. And  
34 though those salmon might be coming from a different  
35 place -- maybe not as much Western Alaska, the way --  
36 you know, the Council being a Federal body manages to  
37 reduce or minimize bycatch of those salmon because some  
38 of those are endangered species listed -- chinook  
39 salmon runs, but also those fish in near Alaska waters  
40 do play a part in sport, charter, and recreational and  
41 also subsistence users for Alaska as well.

42  
43 So since 2012 the Council has taken a  
44 series of steps to reduce these trawl bycatch limits  
45 for -- reduce existing limits for halibut and then also  
46 create new limits for chinook salmon. The first to go  
47 into place as you see was in 2012. A setting of a  
48 chinook salmon bycatch limit for the vessels that are  
49 trawling for pollock in the Gulf of Alaska. And this  
50 was in response to a year of high chinook salmon

1 encounter in 2010.

2

3                   So sort of like in the Bering Sea, you  
4 saw a response to a 2005 spike. A 2010 experience got  
5 the Council moving in that direction and that cap has  
6 been in place for several years now.

7

8                   Going alongside that was a reduction in  
9 existing halibut bycatch caps for the Gulf trawl and  
10 long line groundfish fisheries and then last year was  
11 the first year that the Council had implemented  
12 additional chinook salmon caps for the other Gulf trawl  
13 fisheries in regards to chinook salmon.

14

15                   So here's just a look since 2003 at  
16 what the aggregate chinook salmon bycatch across  
17 different trawl sectors has been in the Gulf. You see  
18 the spike in 2010. Similarly, this doesn't show up  
19 quite as well, but this is halibut bycatch in Gulf  
20 trawl fisheries. And you can see the purple line above  
21 was the existing bycatch limit, so this is a hard cap  
22 like Diana described in the Bering Sea where if these  
23 limits are met annually or for halibut seasonally or in  
24 a specific fishery, that closes down the trawl sector  
25 for the rest of that season or for that year. And the  
26 halibut fishery in 2013 was the beginning of a phase in  
27 of a lower limit. 2016, now that lower limit is fully  
28 implemented.

29

30                   And as I talk in a minute about a next  
31 step action that the Council is taking, both the  
32 chinook salmon limit for the pollock fishery and the  
33 halibut bycatch limit could be reduced further as part  
34 of the Gulf trawl bycatch management program.

35

36                   I'll jump back to in 2015, on the  
37 bottom, the new bycatch limits for the trawl fisheries  
38 in the non-pollock targets -- so these are the Pacific  
39 cod and flatfish fisheries were set pretty close to the  
40 level where the trawl sector had been in regards to  
41 salmon bycatch. So those limits were put in place at a  
42 level that's really challenging for the trawl sector to  
43 stay below that. And that's because these hard caps  
44 have a conservation purpose and the Council recognizes  
45 the need to set those limits to protect the resource.

46

47                   So I think in a sense the limits that  
48 are in place right now are step one. They had a  
49 conservation purpose.

50

1                   Step two now is to provide the fleet  
2 with tools for two purposes. One is to be able to  
3 prosecute that fishery without having closures every  
4 year. And those closures do affect Gulf of Alaska  
5 communities and stakeholders throughout the State.  
6

7                   But the other part of step two -- the  
8 other reason the fleet needs tools is to do better than  
9 a hard cap. Diana mentioned a race for bycatch. And  
10 if the only thing -- the only incentive that the trawl  
11 fleet has is just not to hit that highest number, then,  
12 you know, any number up to that would in some sense  
13 make no difference to them.  
14

15                   So the Council wants to set up in the  
16 Gulf, as it has in the Bering Sea, a system of  
17 incentives so that the trawl sector is looking to avoid  
18 chinook salmon and halibut every day that they're out  
19 fishing.  
20

21                   In regards to the chinook salmon  
22 bycatch, I just wanted to highlight one other  
23 difference between the information we have and the Gulf  
24 versus the Bering Sea. Diana mentioned the adult  
25 equivalent information for the Bering Sea. That's not  
26 something that's been developed for the Gulf yet. We  
27 don't quite have the same level of information about  
28 what the age or the likelihood of returning to spawn  
29 would be for the chinook salmon that are taken in the  
30 Gulf trawl fishery.  
31

32                   Anecdotally, our understanding is that  
33 the size of the fish suggests that they're younger than  
34 the bycatch salmon in the Bering Sea. I think that's a  
35 future information need and that's something that our  
36 science center partners are always working to develop  
37 better information for management.  
38

39                   So the program itself -- the Gulf of  
40 Alaska Trawl Bycatch Management Program is as I said --  
41 has a purpose of helping trawl stakeholders succeed  
42 within the bounds of limits that have already been set  
43 and have already been reduced. So nothing about the  
44 set of alternatives the Council is working through  
45 would increase these limits that are in place.  
46

47                   And again, hopefully the program will  
48 represent a system of incentives where vessels are  
49 looking to avoid and to do much better than these hard  
50 caps. And also there are options within the Council's

1 current set of alternatives that it meets to discuss  
2 several times a year at this point, where those  
3 existing caps for chinook salmon and halibut could be  
4 further reduced.

5  
6 All of the Council's alternatives --  
7 all of the different programs structures that it's  
8 investigating right now do include as part of them 100  
9 percent observer coverage for all Gulf trawl vessels.  
10 The trawl vessels in the Gulf have various levels of  
11 observer coverage right now based on the type of  
12 processing they do. If it's at sea or shore side. But  
13 all trawl vessels have some observer coverage. Under  
14 this type of program they would all be carrying a human  
15 observer all -- and every day.

16  
17 The basic difference between the two  
18 main roads that the Council could go down in terms of  
19 program structure have to do with whether or not --  
20 well, I should say the similarity is that both of these  
21 alternatives would structure the fishery around a  
22 system of voluntary cooperatives. So again this is  
23 modeled on the success that the Council has had in the  
24 Bering Sea and in other fisheries, some including the  
25 Gulf of Alaska rockfish program, where the notion is  
26 that when you have individual operators seeking to  
27 catch as much fish with their trawl net as they can,  
28 their incentives don't always place by catch avoidance  
29 as high as it could or should be.

30  
31 So in order to help people perform  
32 better in relation to these caps and to have -- to  
33 minimize the risk of these closures, that, you know, we  
34 reach a conservation limit and then there's a closure  
35 that affects fishery-dependent communities, the  
36 programs are structured through cooperatives that try  
37 to get the users pulling in the same direction so to  
38 speak.

39  
40 So there would be a system of  
41 cooperatives where trawl vessels are working in tandem  
42 with one another, with improved communication. And the  
43 material that the cooperative forms around is some sort  
44 of harvest allocation. The Council is looking at  
45 whether or not that would be allocation of groundfish  
46 in addition to bycatch allowance or whether it would  
47 just be an allocation of bycatch.

48  
49 I think this Gulf of Alaska Trawl  
50 Bycatch Management Program has been well-covered in the

1 news for a couple of years and because it's -- it's  
2 complex, but the complexity really has more to do with  
3 impacts on the trawl sector itself and how the relative  
4 benefits and costs of a new program break down among  
5 trawl participants and trawl stakeholders.

6  
7           The conservation part of it is fairly  
8 simple. And it's what I described earlier. That there  
9 are existing caps. They wouldn't be increased. They  
10 could be decreased. And hopefully there will be  
11 incentives that help people do better every day.

12  
13           I already touched on the content of  
14 this slide a little bit. What the incentives could be  
15 -- there's -- you know, the basic idea is we want to  
16 help trawlers fish differently. There's one other tool  
17 in addition to just the incentive of how a cooperative  
18 jointly manages an allocation of groundfish or bycatch.  
19 And that would be the Council's also looking at  
20 allowing trawlers to use different gear types that  
21 don't have the same kind of chinook salmon bycatch.

22  
23           So allowing -- if a trawler does have  
24 an allocation, that it's not fishing in a race against  
25 other trawlers for Pacific cod, for example, then it  
26 doesn't have to necessarily use the most efficient gear  
27 for getting Pacific cod out of the water. They could  
28 maybe use pot gear, which would be a good way to reduce  
29 the amount of chinook salmon that are taken. But under  
30 the way things are currently managed where there is  
31 more of a race to fish, a fisherman who's using pot  
32 gear instead of a trawl net would be at a competitive  
33 disadvantage.

34  
35           So this is just one of many features of  
36 the program where the Council is looking to provide  
37 voluntary tools to let the trawl sector find a mix  
38 where it can, you know, both support the community that  
39 it supports through its harvest of fish and delivery to  
40 processors, but also stay within the conservation  
41 limits that have been set.

42  
43           The last slide I have here just goes  
44 over a few more examples of how the Council might  
45 provide incentives to reduce bycatch. I mentioned that  
46 these cooperatives are voluntary. That's by rule. The  
47 Council can't tell someone that they have to join some  
48 agreement and be jointly liable with other fishermen,  
49 but the Council, you know, uses its incentive or dis-  
50 incentive approach where if you're an individual trawl

1 operator and you choose not to join one of these  
2 cooperatives, the amount of chinook salmon or halibut  
3 bycatch limit that you are fishing under would be much  
4 lower. So there's an incentive there to be in this  
5 cooperative mode.

6  
7 If once a cooperative is formed, the  
8 cooperatives would make reports similar to what Diana  
9 described for the Bering Sea that tell the Council and  
10 the public how their fishing plan supports the  
11 minimization of bycatch. That also tells the Council  
12 what innovative solutions it as a cooperative has come  
13 up with to have members of the co-op try to, you know,  
14 do as well as they can on an individual and collective  
15 basis. So there might be some internal incentive  
16 programs within the cooperative that benefit good  
17 performers.

18  
19 And another tenet of why cooperatives  
20 are a preferred approach by the Council is that if you  
21 think of a diverse group of boats, some might be really  
22 good at avoiding chinook salmon, some not as good.  
23 When they're individual operators, well that's good for  
24 the ones that are good at it. And the other ones do  
25 worse. But once you put them on the same team you hope  
26 to sort of raise the level of bycatch performance to  
27 where the ones that might have less information or  
28 experience are benefitting from what the other vessels  
29 have learned or are learning out on the fishing  
30 grounds.

31  
32 And then finally, one other example --  
33 the third one there is modeled after the pollock  
34 fishery as well, where the Council would be providing  
35 an incentive in terms of getting a higher relative  
36 share of bycatch allowances for co-ops that sign onto  
37 an inter-cooperative agreement. So that's just another  
38 layer of getting more people pulling in the same  
39 direction so that we don't have some co-ops that are  
40 doing a great job and other ones that might not have as  
41 many vessels or as many resources.

42  
43 So we don't -- you know, the Council  
44 doesn't want good co-ops and bad co-ops. They want a  
45 bunch of really good co-ops. So that's why they would  
46 add another layer of incentive to create a second layer  
47 of communication.

48  
49 That's a pretty high level summary.  
50 Again, I think a lot of the complexity and the reason

1 this process has taken a while -- or is taking a while  
2 -- has to do with the nuts and bolts of what's going on  
3 within the trawl sector. The bycatch conservation part  
4 again is fairly simple. So that's why I've given a  
5 high level overview, but perhaps there will be  
6 questions after the presentation. And we always  
7 welcome that.

8

9 MR. MACLEAN: So moving on really  
10 briefly, we'll talk about the upcoming Council  
11 meetings, what it is that the Council is going to be  
12 addressing and your opportunities for input.

13

14 At the April 2016 meeting we will have  
15 some information on the Bering Sea Aleutian Islands  
16 halibut, including a discussion paper or analysis on  
17 the abundance-based halibut PSC limits that Dr. Stram  
18 mentioned earlier. And also a look at discard  
19 mortality rates. So this information that's coming to  
20 the Council that you'll have an opportunity to see and  
21 comment upon.

22

23 There will also be a series of reports  
24 on salmon bycatch at the April 2016 meeting, including  
25 the reports from the Bering Sea pollock fishery, from  
26 the industry itself on the results from their 2015  
27 fishery. What was the level of salmon bycatch reports  
28 from that industry.

29

30 Also be some reports on the genetic  
31 stock composition for salmon bycatch and all of the  
32 groundfish fisheries, probably with some information  
33 about the spatial distribution if those data are  
34 available.

35

36 Also be receiving some information on  
37 the Gulf of Alaska trawl bycatch management in June and  
38 October and December of 2016. Like we said, this is a  
39 new program that is being developed and will be in  
40 front of the Council at multiple opportunities in the  
41 coming year, all with opportunities for input.

42

43 There are several ways that you can  
44 provide your comments and we would ask that you do so.  
45 You can email a letter from your Councils or your  
46 individuals to the Council. And our email address  
47 there is [npfmc.comments@noaa.gov](mailto:npfmc.comments@noaa.gov).

48

49 For the upcoming meeting in April, we  
50 have a deadline of March 29th for that information to

1 be included in the packet that goes to our Council  
2 members.

3  
4 There's also the opportunity to testify  
5 in person at a Council meeting. And you do not have to  
6 pre-submit your comments. You can bring those to you  
7 at the day of the meeting.

8  
9 All of this information is available on  
10 our website, which is [www.npfmc.org](http://www.npfmc.org). From there you can  
11 also have links to an audio broadcast during our  
12 Council meetings that is happening live. And all of  
13 the information -- the briefing books and the Council  
14 motions are posted online. But the information that's  
15 available to the Council members is posted before the  
16 meetings. And then as motions come up during the  
17 meeting, those are also posted online so you can have  
18 direct information as quickly as it happens.

19  
20 This is the presentation that we've got  
21 for you. Thank you very much for this opportunity.  
22 All of our email addresses are up there on the screen  
23 or you can talk to Carl or me directly and we can get  
24 you information.

25  
26 And this point at your convenience, we  
27 will answer any questions.

28  
29 MADAME CHAIR CHYTHLOOK: Okay. This is  
30 a period where the Council -- the regions can ask  
31 questions. We can go until about 12:30.

32  
33 And I guess my first question -- would  
34 you be able to give your presentation to our regional  
35 coordinators so that each of us could have it?

36  
37 MR. CUNNINGHAM: Yeah, Madame Chairman.  
38 Absolutely. Carl has already received the  
39 presentation. Or you can email Carl or me directly and  
40 we can get you that information.

41  
42 MADAME CHAIR CHYTHLOOK: Okay.

43  
44 Go ahead.

45  
46 MR. KOSO: Yeah, Madame Chair. I've  
47 got a question. I don't know if it's for you guys or  
48 not, but there was a push here I think last year to add  
49 a subsistence member to your Board. I don't know if  
50 that went through, but I don't think so because I

1 attended the last meetings. And I just wanted to know  
2 what the status is. And if that person is going to be  
3 a voting member or if he's just going to be an advisory  
4 member, if it takes place.

5  
6 MR. MACLEAN: Thank you, Madame  
7 Chairman. Mr. Koso. There is not a designated  
8 subsistence seat on the Council; however, you are  
9 always free to nominate somebody for one of the five  
10 appointed seats for the Council. And there is no  
11 restriction on who can receive that nomination.

12  
13 MR. SCHWANTES: Madame Chair. Question  
14 to Diane. You mentioned that back in 2011 you required  
15 100 percent observer coverage for trawl point. Is that  
16 only in the Bering Sea?

17  
18 MS. STRAM: Mr. Chairman. Yes. It's  
19 in the Bering Sea pollock fishery. We have different  
20 fisheries that have different observer requirements.  
21 Specific to the Bering Sea pollock fishery, as a result  
22 of that action, the observer coverage -- some parts of  
23 the pollock fleet had always been at 100 percent  
24 observer coverage. But a small portion of the shore-  
25 side fleet was not yet at 100 percent. And in order to  
26 implement that program, that was a requirement of it.

27  
28 As you heard from Sam, in implementing  
29 similar programs in the Gulf of Alaska, the Council  
30 will also require 100 percent observer coverage on  
31 those fleets. We have other fleets in the Bering Sea.  
32 Our flatfish fisheries. The majority of the flatfish  
33 fisheries are also at 100 percent observer coverage.  
34 So there's a variety of reasons why certain fleets have  
35 higher observer coverage rates than others, but  
36 specific to the requirement to census the salmon in the  
37 Bering Sea pollock fishery, all of the vessels are at  
38 100 percent.

39  
40 MR. SCHWANTES: And then my next  
41 question is can you tell me what percentage of the  
42 total bycatch is actually donated to the food banks  
43 versus that that's wasted.

44  
45 MS. STRAM: Mr. Chairman. We have long  
46 wished to have that information. And we are unlikely  
47 to obtain that information because the goals of the  
48 SeaShare program and the Council's desire to know how  
49 many fish are donated to the SeaShare program are not  
50 compatible. The SeaShare program provides their

1 information in terms of pounds of filets and not in  
2 terms of numbers of individual fish.

3

4                   And while the Council has requested  
5 that of SeaShare, SeaShare is not intended to be a  
6 bycatch counting program. It is intended to be a food  
7 donation program. And so they do not have records of  
8 how many fish. It has certainly been increasing in  
9 recent years given all of the complexities in the  
10 Bering Sea pollock fishery, as well as in the Gulf of  
11 Alaska.

12

13                   I should note that a lot of the donated  
14 salmon and halibut is coming from both the Gulf of  
15 Alaska and the Bering Sea fisheries. And on a general  
16 basis, the amount and the numbers have been increasing.  
17 And the participation of the fleet has been increasing,  
18 but we don't have a data collection program that's  
19 specific to say how many fish have been donated to  
20 SeaShare unfortunately.

21

22                   MR. O'HARA: Madame Chair. Madame  
23 Chair.

24

25                   MADAME CHAIR CHYTHLOOK: Yes.

26

27                   MR. O'HARA: Diana, this question is  
28 basically for you. We thank you for coming. And I  
29 know you're the messengers. And one of the things that  
30 I have a problem with is the donator program. Because  
31 it could become a targeted species because of that.

32

33                   Now we live with that fear and we  
34 oppose that naturally. And by the way, I'm from  
35 Bristol Bay. The Bristol Bay RAC. And I realize that,  
36 you know, the Yukon-Kuskokwim has had a very difficult  
37 time. And I've heard these people and I testified  
38 before the Council last year.

39

40                   We have had a reduction in the bycatch  
41 program, which we appreciate a lot. And we had a few  
42 more kings come back to Bristol Bay. In fact, the  
43 Nushagak finally got an escapement after -- I don't  
44 know -- 20 years. They -- Alaska Department of Fish  
45 and Game just kept adjusting the numbers and never got  
46 the escapement. This year they got the escapement and  
47 they got a little fishery. So we're looking to -- our  
48 Council is not by any means supporting the bycatch of  
49 prohibited species.

50

1                   Granted, the CDQ is a good program for  
2 a lot of -- for all the coastal communities, but we  
3 oppose bycatch strongly.

4  
5                   We thank you for your presentation  
6 today.

7  
8                   MS. STRAM: Thank you. And Madame  
9 Chair. Mr. O'Hara. If I could just comment. I think  
10 that the Council shares that belief as well. And  
11 that's reflective of the fact that even though the  
12 program went into place in 2011 and bycatch has been  
13 relatively low since that time in the fishery, the  
14 Council specifically took actions to put more stringent  
15 measures on the pollock fishery. And we specifically  
16 looked at was everyone trying as hard as they can. As  
17 Sam described it, was every vessel trying as hard as  
18 they can to reduce bycatch. In the pollock fishery  
19 they have the tools to have the right incentives in  
20 place. And the Council basically felt that not  
21 everyone was trying as hard as they possibly could.

22  
23                   And so the measures that were put into  
24 place coming out of our April meeting just last year  
25 are exactly intended to get at the fact that they want  
26 everyone to try as hard as they can all of the time  
27 that they're fishing. So I think that they share that.  
28 It's just fortuitously at least we have a SeaShare  
29 program that is also trying to make the best use of the  
30 fish that is accidentally caught. And then while the  
31 Council moves to try to make sure that everyone is  
32 trying as hard as possible to not catch those fish.

33  
34                   MS. LYON: Thank you, Madame Chair. I  
35 have a couple of questions for you guys, too. On your  
36 slides, Diana, that showed the different areas of stock  
37 that you were forecast -- or, you know, monitoring for  
38 stocks that were being caught, there was several  
39 hundred miles of coastline along the Alaska Peninsula  
40 that's not in that accounting. And the reason I bring  
41 it up is because you see from the 18 percent up to the  
42 52? That actually represents an awful lot of area.

43  
44                   And those rivers that are in that area  
45 -- a very large portion of them do support chinook  
46 runs. And the reason that they concern me is because a  
47 lot of those chinook runs are very, very small and  
48 historically have been. But the impact of bycatch on  
49 those super small rivers is much more potentially  
50 detrimental than it is even on our larger rivers, which

1 of course the Nushagak supports several thousands fish.  
2 Over 100,000 is our goal there.

3  
4 So my point is, is there a reason  
5 they're left off that map? And I'll give you a quick  
6 follow up too before I give you an opportunity to  
7 respond. But I know for a fact that there is genetic  
8 information on some of those rivers because I took it  
9 personally for the State of Alaska. And over the term  
10 of two or three years, I think, I had everybody I could  
11 find doing fin clippings for them and getting them to  
12 him. So I know it's available. So why is that not  
13 included in that?

14  
15 MS. STRAM: Thank you. That's a great  
16 question. And partially because this is just kind of a  
17 rough map. What underpins all that are a million  
18 different data points of all those rivers. And if you  
19 -- in the slide that shows you different genetic  
20 reports, many of those reports include 20 pages of the  
21 individual rivers that actually do comprise those  
22 areas.

23  
24 The reason why we just show it this way  
25 is more to show the way the groupings end up together  
26 for the genetics. We do provide the information to the  
27 North Alaska Peninsula stocks. We have never done an  
28 impact analysis specific to those stocks. We just show  
29 which stocks comprise that grouping. And they -- that  
30 grouping probably does comprise all the rivers that you  
31 are talking about. Just the -- kind of the oval  
32 overlaying it doesn't necessarily reflect that.

33  
34 The issue that we've faced a lot in  
35 recent years -- so the South Alaska Peninsula ones end  
36 up getting aggregated with a lot of the Gulf -- the  
37 South Gulf of Alaska. North Alaska Peninsula ends up  
38 being its own separate aggregation, but again  
39 underpinning it as a bunch of different rivers that are  
40 all included in there.

41  
42 And then the problem that we faced with  
43 the Coastal West Alaska is that that's the biggest  
44 grouping. And we can't differ -- at this time right  
45 now they cannot differentiate to the level of precision  
46 they would like within that grouping. But they have  
47 been working. It's not a static system. The --  
48 between the WASSIP program that's been going as well as  
49 the ADF&G geneticists, the NMFS geneticists have all  
50 been working together to update the baseline, which is

1 what they use to evaluate how precise they can be to a  
2 certain stock grouping.

3  
4                   And that's where we -- we just met last  
5 week and we heard an update on how -- funding  
6 contingent as everything else is -- they will likely be  
7 able to resolve the Lower Yukon separately from the  
8 aggregate of the Nushagak all the way up through the  
9 Kuskokwim and the Lower Yukon. Right now they kind of  
10 bleed over into each other and they can't be separate.  
11 But the Norton Sound chinook stocks will likely be able  
12 to be separated. The Lower Yukon will be able to be  
13 separated. They're probably never going to be able to  
14 differentiate between the Nushagak and the Kuskokwim.

15  
16                   And I didn't hear any information from  
17 them, but I probably haven't asked the right questions  
18 as to what work they would be doing along the North  
19 Alaska Peninsula stocks. They seem to have kept that  
20 as a separate entity.

21  
22                   I don't know if that gets at your  
23 question. But I do think that those stocks that you're  
24 talking about, they are represented in that grouping,  
25 but they just get all aggregated into what's called the  
26 North Alaska Peninsula.

27  
28                   MS. LYON: It gives me a level of  
29 comfort knowing that they're being acknowledged. But  
30 I'll stop there with my comment on it.

31  
32                   My second question is maybe not so much  
33 pertaining to your slide show, but I think it's also  
34 relevant. Are we seeing or have you heard reports on  
35 any changes that you're seeing in the Asian fisheries  
36 that are out there due to the radiation from Japan.  
37 What's the latest reports or do you have any for us  
38 that you might be able to share.

39  
40                   MS. STRAM: I -- personally, I don't  
41 think we have that information. No. I'm sure that we  
42 can try and check back with ADF&G in terms of whether  
43 or not that's something that they are obtaining  
44 information on and as well as the NMFS, National Marine  
45 Fisheries Service. So we can get back to you on that.

46  
47                   MADAME CHAIR CHYTHLOOK: I see your  
48 hand back to my right there. You have the floor.

49  
50                   (Fixing mics)

1 MS. STRAM: In general, as far as  
2 Western Alaska chinook stocks, there's been a slight  
3 increase recently back to the Yukon. In general  
4 though, the Western Alaska chinook stocks are still in  
5 a lower state, in a decline.

6  
7 The chum stocks for the most part are  
8 doing much better in the Bering Sea, with some  
9 exceptions in Norton Sound and other areas.

10  
11 Across the Gulf of Alaska, I know that  
12 the Kenai are in decline. I don't know. I don't know  
13 if Sam or Steve have general information on overview of  
14 that.

15  
16 MR. SHIEDT: Excuse me. We need to  
17 hear the question, too, okay.

18  
19 MS. PETERSON: Well, I don't want  
20 to.....

21  
22 MR. SHIEDT: Come up to the mic.

23  
24 MS. PETERSON: Well, I don't want to be  
25 on the spotlight but I want to.....

26  
27 REPORTER: Here. Just talk right  
28 here, please.

29  
30 MR. ANDREW: Maybe you can get it to  
31 work here.

32  
33 REPORTER: Something pulled apart  
34 between these tables.

35  
36 (Microphone issue)

37  
38 REPORTER: Can you please use this  
39 microphone right here.

40  
41 MS. PETERSON: Yeah. It -- I didn't  
42 want to make such a fuss about being heard here because  
43 I just have one quick question. I asked if there were  
44 any other factors besides bycatch being taken into  
45 account. And also what about global warming. Is that  
46 being part of the study on the salmon populations?

47  
48 MS. STRAM: Sure. Just to let you  
49 know, we focus on bycatch because it's bycatch in the  
50 Federal groundfish fisheries. Obviously, it's the

1 State of Alaska that manages the salmon stocks --  
2 manages and assesses the salmon stocks. They've  
3 recently completed the AYKSSI research plan, which  
4 looked at what are all the myriad of things that are  
5 responsible for the state of -- it's primarily Western  
6 Alaska AYK salmon. But what are all the different  
7 factors that are involved.

8

9 And of that bycatch, that was actually  
10 downgraded as being one of the key factors. Because  
11 there are so many other factors involved in how the  
12 salmon populations are responding to either climate  
13 change, stream degradation and other factors like that.  
14 So I would refer you more to AYK SSI, as well as State  
15 of Alaska to those factors. We are solely responsible  
16 for when the Federal groundfish fisheries intercept  
17 salmon as bycatch.

18

19 MADAME CHAIR CHYTHLOOK: I think the  
20 gentleman way in the back with the hat and then Tom.

21

22 MR. FIRMIN: Thank you, Madame Chair.  
23 I have two questions. One is what is your percentage  
24 of error on your research or your confidence intervals,  
25 and when the lower chinook salmon runs are predicted  
26 and they would lower the bycatch. When that decision  
27 is made, how long would it take for it to take effect?

28

29 MS. STRAM: Okay. Thank you. With  
30 respect to your first question, one of the changes that  
31 we made in -- both in terms of observer coverage so  
32 that the precision of our estimates are high, not only  
33 did we have the change in observer coverage, but almost  
34 more importantly is that in conjunction with that, it's  
35 a census of salmon. So every single salmon in the  
36 sample is pulled off and counted.

37

38 So that's something new. In the Bering  
39 Sea, I would note. Because we don't necessarily, as  
40 Sam mentioned, have the same programs in place in the  
41 Gulf of Alaska. We are moving towards that. But in  
42 the Bering Sea it is a full salmon census.

43

44 Your second question I think was moving  
45 forward with abundance based caps in the Bering Sea?  
46 I'm sorry. Was that your second question?

47

48 MR. FIRMIN: Yeah. When you mentioned  
49 that the Lower chinook runs are predicted, they would  
50 lower the bycatch rates. And like when that decision

1 was made, how long would it take to take effect.

2

3 MS. STRAM: Okay. Thank you. Sorry.  
4 So that decision was made and the regulations that --  
5 to implement that program will go into place this year,  
6 at some point in 2016. But the -- on an annual basis  
7 in October, the State of Alaska provides the Council  
8 with an estimate of what the total run strength is of  
9 the -- there's three rivers that are involved in the  
10 index. And if the total run strength is above 250,000  
11 it is not considered to be a low abundance year. If it  
12 is below 250,000 then it's considered to be a low  
13 abundance year.

14

15 And so it's kind of a flip-flopping  
16 mechanism where if it's a low abundance year in the  
17 very next year, the caps will be lowered. If it is not  
18 a low abundance year, the caps remain the same.

19

20 So currently in 2016, we received a  
21 letter from the State of Alaska in the fall of 2015  
22 indicating that 2016 was not estimated to fall below  
23 the threshold that would lower the cap. So we know  
24 that when those regulations go into place in 2016, for  
25 this entire fishing year the fleet is not under the  
26 lower caps. We will find out in the fall of 2016 if  
27 the estimate for the subsequent year would put us into  
28 a low abundance year. And then the caps would  
29 immediately be lowered.

30

31 So the mechanism is in place for those  
32 to -- that happens immediately. But this year is not  
33 one of those years.

34

35 MR. FIRMIN: Thank you.

36

37 MR. GRAY: Thank you, guys, for coming  
38 and presenting. I really appreciate this. This has  
39 kind of been enlightening for me. And for those of you  
40 out there, I read a book called The Billion Dollar Fish  
41 one time. And I'll tell you what. It's amazing how  
42 big and powerful this industry is.

43

44 But anyway, to look at this map and see  
45 52 percent of the bycatch is one area and actually if  
46 you read between the lines it's 56 percent because of  
47 the Northern Yukon. You caught my ear when you talked  
48 about separating the Norton Sound out from the rest of  
49 it. And is there going to be a process for us to be  
50 able to get that information.

1 I think with our fish resources  
2 depleted, you know, we've been 25 years without fish.  
3 And a high majority of the bycatch is happening on the  
4 West Coast of Alaska. You know, we're getting hurt --  
5 hit hard. And our people are the ones taking the hit.  
6 So somehow we've got to fix this. Whether it's the  
7 timing. You know, the bycatch -- one of the big issues  
8 was when they come to spawn. You guys try to steer  
9 away from that because you can wipe the herd out.

10

11 I heard a little while ago about Japan.  
12 Well, Japan -- they don't have a pollock industry  
13 anymore according to this Billion Dollar book. So, you  
14 know, it's a powerful organization.

15

16 But again I think, number one, I'd like  
17 to understand how we're going to get the information on  
18 our region's fish so we can really understand what our  
19 Norton Sound region is -- what kind of a hit we're  
20 taking with the depleted numbers that we have.

21

22 MS. STRAM: Thank you for your  
23 question. And with respect to Norton Sound chinook,  
24 when the -- the baseline is being revised so that they  
25 can separate out those fish. It's probably a year or  
26 two. And again it's dependent on the geneticists  
27 having the funding to do it before they can resolve  
28 Norton Sound chinook. And then they will go back in  
29 time and retrospectively analyze all of the samples so  
30 that we could then provide this kind of a  
31 distributional map that would have Norton Sound broken  
32 out historically from the last several years to get an  
33 estimate of how that varies.

34

35 The other thing that we're looking at  
36 is how we look at different spatial breakouts across  
37 the Bering Sea to see whether or not there are some  
38 areas on Bering Sea where there's a disproportion --  
39 there's a higher percentage of certain amounts of  
40 stocks than when we look at it -- the Bering Sea as a  
41 whole.

42

43 So all of those things are progressing.  
44 And as soon as -- as soon as the baseline itself is  
45 available, Norton Sound will be broken out, as I  
46 understand it, as will the Lower Yukon.

47

48 But in addition to that, we're also  
49 looking at different ways to group the genetic samples  
50 in space and time to try to get a better understanding

1 of whether or not fishing in certain areas is having a  
2 disproportionate impact on some stocks.

3  
4 MR. GRAY: Do we have to do anything to  
5 get our name in to get this information? Is there  
6 anything that we have to do?

7  
8 MR. CUNNINGHAM: Well, I'd be happy to  
9 talk with Carl and other RAC coordinators about how to  
10 get those information to you. We do get the regular  
11 reports and so we will make sure that that information  
12 does get to you.

13  
14 MADAME CHAIR CHYTHLOOK: Okay. I think  
15 we have Calvin.

16  
17 MR. JOHNSON: Actually, Robert's next.

18  
19 MADAME CHAIR CHYTHLOOK: Okay. Robert.  
20 Sorry. Yeah, Robert.

21  
22 MR. WALKER: Thank you, Madame Chair.  
23 Diane or Steve, Robert Walker, Western Interior RAC.  
24 I've got a question here.

25  
26 Is that a few years back we brought  
27 this up here, was the quota for the bycatch. How is  
28 this working? Or how does it work? Does it -- if a  
29 trawler or a cannery doesn't fill their quota, are they  
30 given extended days to do this?

31  
32 And my other question was how much are  
33 we interfering with the Russian fisheries? Is there  
34 something that has to do with our numbers with this  
35 also?

36  
37 Thank you.

38  
39 MS. STRAM: Thank you. If I -- so if I  
40 understand your question, in terms of their quota that  
41 the -- the pollock fishery in the Bering Sea is divided  
42 out by season. So winter season and a summer season.  
43 If they don't reach their quota by the time the season  
44 ends, they don't reach their quota.

45  
46 The quota itself is separated into  
47 individual sectors of the fishery that fish  
48 differently. And within those sectors to individual  
49 cooperatives. And each of those are allocated a  
50 different proportion of both the pollock quota as well

1 as their chinook bycatch limit. If they reach their  
2 chinook bycatch limit, they will stop fishing before --  
3 by the end of that season or by the end of -- within  
4 that year, depending on at what point they reach it.

5  
6 But if they -- they don't get any  
7 additional provisions to catch their quota if they  
8 can't catch it. And in fact, in recent years they have  
9 not reached the full pollock quota in the B season.  
10 And some of the measures in place specifically for  
11 salmon bycatch in the summer fishery are designed to  
12 keep the fishery from aggressively prosecuting harder  
13 at the very end of the season to reach their pollock  
14 quota because those are the times when they run more  
15 into chinook.

16  
17 So specifically some of the measures in  
18 place may cause the pollock fishery to forego some of  
19 their quota at the end of the summer season, but that  
20 was considered preferable to allowing the fishery to  
21 prosecute itself at a higher level during times when  
22 there's higher chinook on the grounds.

23  
24 MADAME CHAIR CHYTHLOOK: Okay.

25  
26 MR. MOTO: Madame Chair.

27  
28 MADAME CHAIR CHYTHLOOK: Oh, sorry.  
29 Calvin.

30  
31 MR. MOTO: Yes. My comment is, you  
32 know, this is a million dollar thing. And we have no  
33 way -- our people -- some of our people have no way of  
34 getting into this fishery because all of the permits  
35 are handed down by grandfather rights.

36  
37 Is there any way that we could get any  
38 of those permits? I know they cost quite a bit of  
39 money, but how can our people on the Coastal get a  
40 permit to get this bycatch -- these pollock and these  
41 other fish? It just -- it always disturbs me when I  
42 hear how much money is going out of State because of  
43 these pollock fisheries.

44  
45 Thank you.

46  
47 MR. MACLEAN: Madame Chairman. Thank  
48 you.

49  
50 As you said, this is a very large

1 industry. And so the pollock industry was rationalized  
2 some years ago and the vessels needed to show a history  
3 of actually being dependent on pollock. So I think  
4 we'd have to go back and look through some of the other  
5 provisions to see what the -- I'm sorry. I don't have  
6 the information about new entrance into that pollock  
7 fishery. I think it would be very complex.

8

9 But one thing that we do have is the  
10 CDQ program, which does allow some of the corporations  
11 from those areas to hold some of that quota. And those  
12 are either generally fished on vessels that currently  
13 have -- are owned by the CDQ program or in agreement  
14 with other vessels so that pollock quota can be caught  
15 on those other vessels.

16

17 But specifically I'd need -- we'd need  
18 to do a little bit more looking to get at your question  
19 directly.

20

21 MR. MOTO: Thank you.

22

23 MADAME CHAIR CHYTHLOOK: Okay. I think  
24 we have somebody over here.

25

26 MS. PHILLIPS: Thank you, Madame Chair.  
27 I want to follow a similar line of thinking as the  
28 fellow directly across from me on -- but on the Gulf of  
29 Alaska halibut bycatch. It's based on -- it's moving  
30 towards an abundance based PSC limits. However, in the  
31 last ten years we've taken like an 80 percent reduction  
32 in our overall quota.

33

34 So I mean how can you set the  
35 prohibited species catch limit at a lower limit when  
36 the rest of us are taking such a reduced quota  
37 ourselves for our -- for our own communities and for  
38 our subsistence?

39

40 What I also would like to know is if  
41 you go onto the website, I mean you guys have an AP and  
42 then you have a -- the North Pacific Council. So I  
43 mean how is the best way to be involved as a rural  
44 member from a rural community who doesn't have the  
45 resources as some of the big industry groups do?

46

47 Thank you.

48

49 MR. CUNNINGHAM: Through the Chair.  
50 I'll try to answer your second question first.

1  
2                   As Steve did say, the two main ways to  
3 -- if you're not going to attend a meeting -- if you  
4 don't have the resources to do that, you know, the  
5 Council does accept written public comments. And if  
6 they come in beforehand, that goes directly to the  
7 Council members and to the AP members and their  
8 briefing book.

9  
10                   But also one of things you'll find on  
11 our website is a newsletter that's published after ever  
12 Council meeting that summarizes what happened at the  
13 Council meeting, what actions were taken. And that's  
14 another place where you can look to find announcements  
15 that talk about open seats on some of our advisor -- on  
16 our advisory panel, for example.

17  
18                   And so that's, you know, something  
19 where you would submit an application to the Council  
20 and perhaps, you know, become an AP member. And then  
21 be sitting on that panel and coming to all the meetings  
22 with Council support. So that would be one option.

23  
24                   You prefaced your question about  
25 halibut with the Gulf of Alaska, but I think the  
26 question is really sort of the same in both the Bering  
27 Sea and Gulf of Alaska. If I understood, you were  
28 comparing the fact that the Council has reduced the  
29 trawl bycatch limits in recent years -- in 2013 for the  
30 Gulf and 2015 for the Bering Sea. But because the  
31 halibut available to directed fishing for halibut is  
32 based on abundance, then, you know, that can fluctuate  
33 each year. And whereas the bycatch limits take Council  
34 action to be reduced.

35  
36                   And Diana when she was giving a summary  
37 -- and again you'll get a copy of this presentation.  
38 And there's a slide in there that talks about other  
39 Council actions related to halibut. And that slide  
40 mentioned a so-called framework which is the Council  
41 and the International Pacific Halibut Mission working  
42 -- Commission working together to say how can we  
43 improve upon this program where the bycatch limits are  
44 set in regulation, but the directed fishing limit  
45 fluctuates with abundance.

46  
47                   Diana mentioned that our April meeting  
48 there's going to be a first analysis or discussion  
49 paper about abundance based bycatch limits. That's a  
50 pretty complex tool to set up, to my understanding,

1 just because of how difficult it is to know and to  
2 estimate abundance in that real time kind of way. But  
3 I think you might be particularly interested in  
4 tracking this upcoming April Council meeting where  
5 that's going to be on our agenda.

6

7 MR. MACLEAN: And if I -- Madame Chair.  
8 If I may add one more thing. On the newsletters you'll  
9 also see a staff member listed who is tracking the item  
10 through the Council. And you can always write to the  
11 staff member requesting information. And our email  
12 addresses are all available on the website.

13

14 MADAME CHAIR CHYTHLOOK: Okay. I think  
15 we have one more back here and then we'll break for  
16 lunch.

17

18 MR. HOWARD: Thank you, Madame Chair.  
19 My name is Albert Howard. I'm from Angoon, in  
20 Southeast Alaska. A couple of your comments got me  
21 thinking. I do that once in a while because I'm the  
22 mayor and the president of the tribe at home.

23

24 You mentioned there's incentive for the  
25 trawlers to minimize their bycatch. Let me explain  
26 something to you. As a traditional user, my incentive  
27 not to catch too many sockeye -- not to catch too many  
28 halibut is the State will come and take my boat, my  
29 net, everything I use to take care of my family. To  
30 take care of our elders in the community.

31

32 My bycatch is catching too many halibut  
33 and trying to give it to our elders. You talked about  
34 a food bank. That's our food bank in our community.  
35 But when I do that, I get a fine. I go to court, get  
36 threatened with jail time.

37

38 So it seems to be a double standard  
39 here. When I'm in Angoon and I want to take care of my  
40 elders and I have bycatch. Let's call it bycatch. I'm  
41 going to call it that from now on.

42

43 You're allowing one user group to have  
44 bycatch that has an impact on the Yukon River. I can  
45 talk about this because my former in-laws are from  
46 Russian Mission.

47

48 To me, you know, I'm sitting here  
49 reading. Sometimes the only way I stay in contact with  
50 my son is to watch his FaceBook. And also to make sure

1 he's keeping himself out of trouble. And he post  
2 something on halibut. It's interesting. I try to keep  
3 him out of politics because I know -- it's not  
4 something I don't -- you know, it's something I don't  
5 want him to do. It's just something he chose.

6  
7 Everything in this world is getting  
8 smaller than what it once was. Because humans don't --  
9 you have to excuse me. When I stand here I keep in  
10 mind the people at home and the struggle they have.  
11 The basic human right to feed ourselves without the  
12 threat of being thrown in jail.

13  
14 This is our charge as -- I believe is  
15 to interpret the laws of our grandfathers. When they  
16 sat at the table and created this governing body, it  
17 wasn't to throw us in jail. It was to protect the  
18 resource. Manage for abundance.

19  
20 When you add another user group to that  
21 resource, why don't you do an impact statement on the  
22 subsistence user? What effect does this have on the  
23 subsistence user?

24  
25 My son's comment -- everything in this  
26 world is getting smaller than it once was because  
27 humans don't know when to stop destroying Mother  
28 Nature. We're destroying our own future.

29  
30 (Applause)

31  
32 MR. HOWARD: So I guess my question is  
33 what is their incentive? I don't want to see any more  
34 bycatch. The State Constitution Article VIII, Section  
35 4, says the resource belongs to everybody.

36  
37 Someone mentioned Uncle Ted in here. I  
38 don't mean to offend anybody, but he's the one that  
39 decided that we're going to call this a subsistence  
40 group to make it fair for everyone that lives in rural  
41 communities, Native and non-Native. Keep this in mind  
42 when you're making regulations in our communities that  
43 have an impact on our ability to feed our families.

44  
45 I come from a community that has 80  
46 percent unemployment. Our economy is our resource.  
47 When you go back and you decide the allocation of  
48 bycatch is fair, think about that. Think about me and  
49 my family. I'm a single dad. So everything my son has  
50 to say hits me pretty hard. I'm raising him. He's

1 home.

2

3                   We need a subsistence user on this  
4 Board to bring you this type of feeling. It doesn't  
5 have to be me. I have enough to do. But when you're  
6 making decisions -- Tlingit elders told me we're  
7 divided into our clans. Mine is the Raven Sea Pigeon  
8 from the Sockeye House. I'm full-blooded Tlingit. I'm  
9 proud of that. They tell us -- they have a saying.  
10 That's not my house.

11

12                   What the three of you do and what you  
13 guys do on that Council impacts my house. I've heard  
14 the gentleman say there's political science. I'm going  
15 to use that from now on. Then there's science.

16

17                   There's also traditional knowledge.  
18 When Albert Howard goes to the river he's fished  
19 forever and there's no fish there, there's something  
20 wrong. That's traditional knowledge.

21

22                   When the people in the Yukon River  
23 can't get their salmon, there's something wrong.

24

25                   I've learned something being shot at  
26 for this country. Nothing scares me anymore. What  
27 scares me is the resource that the State and the Feds  
28 say belong to everyone is going away. Our ability to  
29 take care of ourselves once the State of Alaska is  
30 broke is going away. And we are allowing it to happen.

31

32

33                   Food for thought. There's no  
34 subsistence user at your Board meeting. The pollock  
35 industry will come there and they will use their money  
36 to do so.

37

38                   Now, what I've learned at the Board of  
39 Fish meetings in Sitka -- I went there and -- and the  
40 Seiners Association was there. The Trawlers  
41 Association was there and the Gillnetters Association.  
42 There was no subsistence user. I was it. They took  
43 over the Board by using all their three minutes and  
44 left me with three minutes to say what I had to say  
45 about them and what they're doing to our community.

46

47                   You need someone from the rural  
48 community on that Board to show you the impact your  
49 decisions are having in my house.

50

1                   You made a good comment. You're  
2 cutting their bycatch. You're cutting -- I was a  
3 seiner for seven years -- commercial halibut. I'm a  
4 charter boat captain. Fished black cod, crab, pretty  
5 much everything once I got out of the Army. I sold out  
6 my halibut with my dad because you guys were cutting  
7 our quota down to nothing.

8  
9                   But you don't cut the bycatch down to  
10 anything. You should also do the same thing with the  
11 bycatch and see what happens. The definition of  
12 insanity is to continue to do the same thing over and  
13 over and expect a different result.

14  
15                   I appreciate your time. I know time is  
16 valuable. But our resource is also valuable. Our next  
17 generation. I've learned that. I can't be a leader  
18 unless I have kids. Otherwise I'm speaking for myself.

19  
20  
21                   The things you never thought made sense  
22 when the elders were telling you things are making  
23 sense to me now that I'm almost an elder. Well, I'm  
24 getting closer.

25  
26                   So thank you, Madame Chair.

27  
28                   MADAME CHAIR CHYTHLOOK: Okay. I guess  
29 that was just mainly comment. You don't have any.....

30  
31                   I guess we'll break for lunch now and  
32 be back at 2:00. But before we leave, I'd like to --  
33 you know, we recognized the people that were in here  
34 this morning. And we neglected to recognize Hazel  
35 Nelson, Director of Subsistence. She's back there.

36  
37                   (Applause)

38  
39                   MADAME CHAIR CHYTHLOOK: And I want to  
40 recognize also all the elders that are in here.

41  
42                   (Applause)

43  
44                   MADAME CHAIR CHYTHLOOK: So and.....

45  
46                   CHAIRMAN REAKOFF: I also wanted to  
47 appreciate the North Pacific Fisheries Management  
48 Council staff coming and briefing this whole ten-  
49 Council meeting. I know how much work it is in putting  
50 us all together.

1 Thank you very much.

2

3 (Off record)

4

5 (On record)

6

7 CHAIRMAN REAKOFF: So we've got the --  
8 the screen is up. And so we're going to have a  
9 presentation on climate change. But I wanted to  
10 introduce the commissioner of Fish and Game, Sam  
11 Cotten. He's in attendance.

12

13 Do you want to stand up, Sam?

14

15 (Applause)

16

17 CHAIRMAN REAKOFF: And thanks for  
18 attending the meeting. We do have dual management in  
19 Alaska and so this is a big part of the Federal  
20 process. So thanks for coming by.

21

22 And so go right ahead. Who's the main  
23 presenter. Karen?

24

25 MS. PLETNIKOFF: Thank you, Chair. My  
26 name is Karen Pletnikoff. I work for the Aleutian  
27 Pribilof Islands Association.

28

29 Welcome, everyone.

30

31 Thanks for having us here.

32

33 To my right, is Jeremy Littell, with  
34 the Department of Interior Alaska Climate Science  
35 Center, and Aaron Poe, the science coordinator for the  
36 Aleutian and Bering Sea Islands LCC, Landscape  
37 Conservation Cooperative.

38

39 We're going to do a couple of different  
40 presentations. I'll do some general climate change and  
41 then I'll pass it off to -- pardon me -- Jeremy for  
42 some more specifics, primarily terrestrial interior.  
43 And then Aaron will follow with coastal.

44

45 So I don't think I'm saying anything  
46 new here for most of the folks in this room who  
47 experience the kind of changes that we're looking at.  
48 But there are a lot of headlines that are grabbing  
49 international and national and State attention,  
50 especially concerning the physical changes that drive

1 what our subsistence resources look like and in turn  
2 impact our subsistence users.

3

4                   Again, just some of the kinds of  
5 changes that we're anticipating. The shifting  
6 migration and patterns of species, seasonality for  
7 vegetation and species, changes in access and  
8 increasingly hazardous conditions for travel, new  
9 species and pathogens. This year has been especially  
10 telling for harmful algal blooms and the impact that  
11 they have on the base foods in the ocean and the way  
12 those changes can travel up the food chain. We're only  
13 learning more and more about this.

14

15                   Challenges for processing and storage.  
16 This is especially important in areas that have relied  
17 on suitable winter weather. And then finally how all  
18 these changes impact our diet and nutrition, which it's  
19 not just the access to the foods and the cultural  
20 importance of foods, but it's even just the simple  
21 ability to feed ourselves in a cost effective manner.

22

23                   So what our Landscape Conservation  
24 Cooperative -- our LCCs -- they are private partner pub  
25 -- pub -- hmm. A lot of Ps. Public, private  
26 partnership focused on conservation. And their goals  
27 are to look at the big issues.

28

29                   A lot of them in the Lower 48 were  
30 built off of bird flyways. Up here we've got a little  
31 bit of change in that and it's a little more based on  
32 the types of landscapes that we're looking at.

33

34                   But when agencies are mission driven,  
35 they don't have the opportunity to focus on some of  
36 these larger or cross-cutting types of challenges.  
37 It's been largely funded by the U.S. Fish and Wildlife  
38 Service and across the nation there are over 130 member  
39 organizations, including agencies, tribes, NGOs, and  
40 universities. That's just in Alaska.

41

42                   In the two LCCs that I participate in,  
43 ABSI (ph) and Western Alaska, we have participants from  
44 a couple of tribal organizations, regional non-profits,  
45 NGOs, and multiple agencies. Some of the benefits to  
46 this wide variety of partnerships is the ability to  
47 move forward on projects when we are facing, as we all  
48 are, limited funding opportunities.

49

50                   It's especially true for the third

1 round LCCs like the Aleutian Bering Sea LCC, where we  
2 really have accomplished a lot with very little  
3 funding. So they're a successful example of ways that  
4 you guys can get information that's essential to your  
5 work in a new and partnering way.

6  
7 So maybe folks are familiar with the  
8 old harvest database maintained by ADF&G Subsistence  
9 Division. And the Alaska LCCs have worked with ADF&G  
10 to put that database into a searchable map where you  
11 can zoom in and get specific information on different  
12 communities. This kind of service in assisting  
13 agencies and other groups is likely to become even more  
14 important as we weather these changing financial times.

15  
16  
17 Here's an example of just focusing in  
18 on one community, my tribal island of Saint Paul. And  
19 these could be -- this database could be a way to  
20 provide more seasonal, more timely data for managers'  
21 understanding and in-season management.

22  
23 Arctic LCC did a lot of work with  
24 ANTHC's Alaska Monitoring Program, but the most  
25 important part of this effort that the Alaska Native  
26 Tribal Health Consortium did is the opportunity for  
27 folks to use relatively accessible and simple means for  
28 addressing food or subsistence concerns in their own  
29 community on a timely, timely basis. It's affordable.  
30 It's something that you can easily carry with you. And  
31 you can know right away if you've got an issue relating  
32 specifically to a couple of zoonotic pathogens and some  
33 contaminants.

34  
35 Again, these kinds of opportunities  
36 where people can take it in their own hands to find  
37 data, to provide better information for their needs is  
38 something that the LCCs and a number of us have been  
39 working on and look forward to extending and expanding.

40  
41 Another example where an effort began  
42 with the Bristol Bay Native Association and has  
43 expanded and been elevated and expanded geographically  
44 by the Western Alaska LCC is freshwater temperature  
45 changes and impacts. And this is another opportunity  
46 where we can that partnership between tribal  
47 environmental coordinators or regional non-profits  
48 extend and expand the information that's in the hands  
49 of managers for understanding the changes that we see  
50 on a day-to-day basis.

1 This.....

2

3 (Phone interruption)

4

5 MS. PLETNIKOFF: This -- as agencies  
6 are reduced in funding, it's going to become more I  
7 think important and more -- the data won't keep coming  
8 in unless somebody else takes up the mantle and moves  
9 it forward. And so these opportunities where  
10 communities can pick up that mantle and move the data  
11 forward and provide it to the responsible managers is  
12 an opportunity that I think we should all look forward  
13 to investing in. Because it oftentimes is a lot more  
14 affordable as well.

15

16 So LCCs -- now let's talk about climate  
17 science centers. They are university Federal  
18 partnerships between the USGS, the United States  
19 Geological Service, and the University of Alaska  
20 system. They address climate science and information  
21 needs and knowledge gaps at a higher level than the  
22 LCCs -- in a different way than the LCCs do. It's more  
23 the academic side of that, but for real management  
24 issues that Jeremy will go into a little bit more.

25

26 They're specifically designed to  
27 address the Department of Interior's needs, but they're  
28 -- those questions are often answering our -- other  
29 agencies and other groups questions as well. So it's a  
30 wonderful opportunity to get a little bit higher view  
31 than maybe just my region might need or yours.

32

33 And their goal is to produce climate  
34 science and information that's useful to planners and  
35 decision makers.

36

37 Just real quick on planner and decision  
38 makers and managers and users. We're all decision  
39 makers. And especially subsistence users. We have to  
40 make calls on the ground all the time. So any  
41 opportunity we have to improve our own control over  
42 that -- our own ability to gather the information we  
43 need to feel safe and provide for our families is  
44 something that I highly encourage us all to do.

45

46 Again, tribal environmental  
47 coordinators can be involved in these kinds of  
48 activities, so that it -- that might be something that  
49 your community could be interested in.

50

1                   This is an example that is a currently  
2 funded project to develop a network of researchers and  
3 managers to better understand the effects of climate  
4 change on migratory bird species that use seasonal  
5 habitat in Alaska. This project will likely lead to  
6 much larger efforts to understand the most important  
7 scientific gaps needed to understand changing  
8 populations and habitat availability in ways that  
9 address decision needs of managers.

10

11                   I think again focusing on that timely  
12 data for managers in a way that incorporates -- that  
13 synthesizes existing information and incorporates new  
14 information is something that we'll all be better off  
15 when we improve those processes.

16

17                   And the Alaska Integrated Ecosystem  
18 Model is a key part of the Climate Science Center's  
19 scientific work. The IEM has the goal of linking  
20 existing fire, vegetation, and permafrost models to  
21 better understand the landscape changes that result from  
22 interactions of these processes now and in the future.  
23 The IEM uses historical and future climate input to  
24 simulate changes in vegetation type for important  
25 habitat.

26

27                   Jeremy will go into this a little bit  
28 more. I'm just trying to get out the concept. But  
29 this model also has the potential of being used in not  
30 -- not only for habitat understanding, but for early  
31 warning on changes that could impact communities and  
32 larger food availability.

33

34                   Rapid changes in landscapes can be  
35 expected to have impacts on subsistence species. An  
36 example of using the IEM to understand climate impacts  
37 on wildlife is the Alaska Cooperative Research Unit's  
38 work to protect caribou -- project -- excuse me --  
39 caribou and moose habitat based on changes in forage  
40 quality expected under different climate scenarios.

41

42                   So many of these climate science issues  
43 are driven by multiple inputs that are trending in  
44 certain ways as to interact and make things much, much  
45 worse than just any one of those trends. And Jeremy  
46 will use some great visuals to explain that a little  
47 better.

48

49                   But again when we know we won't have  
50 all the data, but we understand which direction the

1 trends are going, it becomes even more important for us  
2 to know when we're getting close to change points and  
3 what those change points are. And that's really where  
4 folks on the ground will be indispensable compared to  
5 what we can rely on for managers' abilities to gather  
6 the data that they need to do their job.

7  
8                   So these are some questions to be  
9 thinking about as we move on. They certainly aren't  
10 something that we're answering today, but it's the kind  
11 of information that LCCs and CSCs particularly good at  
12 pulling together the right groups, the right people,  
13 and the right information to answer some of these -- or  
14 at least try to find ways to answer these for managers.

15  
16  
17                   So what specific data do managers need  
18 for timely and effective harvest management. How can  
19 we -- all of us -- provide timely data for in-season  
20 and pre-season management. How do we -- and this group  
21 being really pretty responsible for a lot of these  
22 aspects -- align those regulations and policies to  
23 provide for sustained harvest. And what are we already  
24 missing or what do we -- what else do we need to  
25 anticipate as we move forward.

26  
27                   Again, not all data will be collected,  
28 but there are certain tipping points that are  
29 definitely something that we can all keep our eye out  
30 for to know when those things are met.

31  
32                   And lastly, as managers or as users, we  
33 can't count on static conditions when we look at  
34 recovery plans because of these multi-variables that  
35 are all changing at once. We'll come back to this at  
36 the end after Jeremy and Aaron have shared their  
37 information.

38  
39                   And here we go.

40  
41                   MR. BROWER: Mr. Chair.

42  
43                   CHAIRMAN REAKOFF: Okay. Go right  
44 ahead.

45  
46                   MR. BROWER: Mr. Chair.

47  
48                   CHAIRMAN REAKOFF: Oh. Are we going to  
49 take questions now on the presentation? No?

50

1 MS. PLETNIKOFF: I'm happy to clarify  
2 anything. I was sort of hoping to have those bigger  
3 questions until after this additional information is  
4 shared.

5  
6 CHAIRMAN REAKOFF: Yeah. That's  
7 probably the best thing is to wait till -- for the  
8 whole presentation. And then we might get into  
9 questions after that.

10  
11 MR. BROWER: Thank you.

12  
13 CHAIRMAN REAKOFF: Is that okay, Harry?

14  
15 MR. BROWER: Yes.

16  
17 CHAIRMAN REAKOFF: Okay.

18  
19 MS. PLETNIKOFF: Thank you.

20  
21 MR. LITTELL: Thank you for the  
22 opportunity to speak with all of you today.

23  
24 As Karen mentioned, when it comes to  
25 either management of or dependence on subsistence  
26 resources, everyone in that loop is a decision maker.  
27 And it's often been said by people who are engaged in  
28 such practice that scientists have answers to questions  
29 they don't have. And so I'm definitely cognizant of  
30 the fact that we're here attempting to participate in a  
31 conversation and not at all to present necessarily what  
32 we think the answers are, but to engage in a dialogue.

33  
34 In the climate science community we're  
35 in the midst of a transition from just trying to  
36 understand what the changes in the climate of a region  
37 or the planet are likely to be and more towards using  
38 that information to better understand what its impacts  
39 on real people, real decisions, and real resources  
40 might look like. How it will affect the resources they  
41 depend on, for example, which is the reason that we're  
42 happy to be here today to speak with you.

43  
44 So this is I hope the beginning of a  
45 conversation. There's more expertise represented in  
46 this room than in the computer models that we want to  
47 talk about sometimes. And so there's a lot that we can  
48 learn in terms of framing the appropriate questions  
49 that science can work on rather than just what the  
50 science has to say from a courser global scale.

1                   So as Karen mentioned, the Alaska  
2 Climate Science Center is a collaboration between the  
3 Federal Department of Interior and the University of  
4 Alaska system. We work very closely with our  
5 colleagues at University of Alaska Fairbanks,  
6 University of Alaska Southeast, and University of  
7 Alaska Anchorage to work on problems of climate impacts  
8 to resources in the State of Alaska.

9  
10                   The ultimate goal is to address DOI  
11 management issues, but as everyone in the room is well  
12 aware, particularly in Alaska maybe like nowhere else  
13 in the country, you can't get at any of these questions  
14 alone. And no one entity can do it all. And so we  
15 have to work together.

16  
17                   Our goal is to provide climate  
18 information that's useful for planning and decision  
19 making, but we don't pretend always to know what is  
20 useful. And so that's why we see this as a dialogue.  
21 We start somewhere. And we're getting there with a lot  
22 of input from our stakeholders via the Landscape  
23 Conservation Cooperatives and also the State NGOs and  
24 the tribes.

25  
26                   So I'll begin here. In terms of  
27 expected climate changes at a planetary or global  
28 scale, we know based on the amount of greenhouse gases  
29 emitted during the 21st century and the likely changes  
30 in the near future that temperatures will rise at a  
31 planetary scale and also at local and regional scale  
32 around the world. How much depends on the greenhouse  
33 gas emissions that occur over the next century.

34  
35                   But for the next several decades most  
36 of the trends in temperature are up and depend less on  
37 greenhouse gas emission scenarios in the near future.  
38 As you move towards the end of the 21st century then  
39 which of these scenarios we follow matters a whole lot.  
40 And so the impacts that we expect at regional to local  
41 levels diverge quite a bit by the time you get to the  
42 end of the century, whereas many of these are rather  
43 similar depending on -- or in the near term, over the  
44 next several decades.

45  
46                   What does it mean for Alaska. It  
47 depends on where in Alaska you're talking about. It's  
48 a very large State with very large gradients in its  
49 physical climate and geography. No one in this room is  
50 unaware of that. But nowhere in Alaska is it projected

1 to be cooling over the next century relative to the  
2 last 30 years.

3  
4 This is the map of the change in annual  
5 temperature that you would expect for different parts  
6 of the State and also Western Canada for the next  
7 century under a relatively high emission scenario by  
8 the end of the century. And you can see that along the  
9 North Slope and in Northwestern Alaska you're talking,  
10 you know, ten degrees Fahrenheit or substantially more  
11 depending on which part of that geography you're  
12 looking at. And in Southeast and Southcentral  
13 considerably less. As little as just under five  
14 degrees Fahrenheit.

15  
16 The point is -- is that those are  
17 relatively large temperature increases relative to the  
18 historical climate and they're expected to happen  
19 relatively quickly compared to the history with which  
20 we're familiar and under which our past management has  
21 been ongoing.

22  
23 Precipitation is projected to increase  
24 in Alaska. More in the high arctic, less in the lower  
25 latitudes and in the Southeast and Southwest portions  
26 of the State. This is for annual precipitation and in  
27 the increases in the high arctic are substantial. As  
28 much as 55 percent in some places.

29  
30 But the -- the impacts of changes in  
31 precipitation though on resources depend greatly on the  
32 seasonality of that precipitation. In the wintertime  
33 most of the State is projected to increase, but in the  
34 summertime as I show in this picture in Southwestern  
35 and Southeastern Alaska, lower latitudes -- the  
36 precipitation in summertime would likely be less than  
37 it has been historically, although not much less than  
38 the inter-annual variability during that history.  
39 Whereas in the higher arctic and the higher elevations  
40 of Interior Alaska you get much larger increases in the  
41 summertime, which is the period of the highest  
42 precipitation during the year. The seasonality  
43 matters. That's the point here.

44  
45 It's also worth noting that projections  
46 of temperature increases are much more certain than the  
47 changes in precipitation, although the higher latitude  
48 you go, the more certainty there is in some regards to  
49 these increases in precipitation.

50

1                   In Alaska though, just because it's  
2 wetter doesn't necessarily mean there aren't impacts  
3 because there's such a big influence of the frozen  
4 environment. Snow, ice, glacier, permafrost, these  
5 sorts of things. Sea ice. Very important in Alaska.  
6 And so the timing of the temperature changes in the  
7 seasonality have a lot to do with their impacts.

8  
9                   Talking about changes at the scale of  
10 the State is not necessarily useful for local  
11 management decisions. And so we have to do something  
12 called downscaling, which is to take coarse regional  
13 output and use relationships between local weather and  
14 regional climate to better understand the local  
15 changes. This is basically like putting the topography  
16 or the local variation into these coarser scale views  
17 of what we expect in the future.

18  
19                   Here's just an example for the Yukon  
20 River Basin. This is some work that we did for  
21 Northwest Boreal Landscape Conservation Cooperative.  
22 And changes in temperature and precipitation alone  
23 aren't all that interesting or useful for some of the  
24 impacts that people are interested in. And so here  
25 we've just done a change in temperature and what it  
26 means for the frost-free days in that lower left panel.  
27 And then the change in days in the lower right panel.

28  
29                   And you can see that the number of  
30 frost-free days increases pretty substantially in parts  
31 of Southwestern Alaska and Southeast Alaska. And then  
32 quite a bit smaller change in the Interior, which makes  
33 quite a bit of sense because much of that area is  
34 already sufficiently below freezing during much of the  
35 year that you don't get as big a change. But this  
36 highlights where some of the larger changes in things  
37 that are relevant say for plant seasonality or  
38 production of fruits for example is important.

39  
40                   Here's a tool that has been put  
41 together by our colleagues at SNAP for communities in  
42 Alaska that allows you to look at projections for that  
43 community, given the climate models. This is for  
44 Venetie. And what you're looking at here is for the  
45 months of the year from left to right, from mid-winter  
46 through summer, and then into the beginning of the  
47 following winter, the grey bars are the historical  
48 period, 1961 to 1990.

49  
50                   On the top, the average temperature.

1 On the bottom, the precipitation in inches. And then  
2 the colored bars show the changes for decades in the  
3 future. Early, mid, and late century, into the 21st  
4 century based on projections in climate.

5  
6 And you can see in the top bars the  
7 temperature increases in all months. The degree to  
8 which it increases varies both with month and then how  
9 far into the future, with the greatest increases in the  
10 future of many degrees in some cases.

11  
12 And then precipitation on the bottom,  
13 with the wetter part of the year in the summertime.  
14 You see the increases are larger. Those black bars or  
15 whiskers covering the colored bars indicate the range  
16 across several different models. And so we're showing  
17 you the average from several of these. And this is  
18 under a middle range emission scenario.

19  
20 I want to make the point here by  
21 focusing on April and October that these are the parts  
22 of the year where historically this part of Alaska has  
23 been just below freezing on average. But as you move  
24 into the future, you move above freezing. And so in  
25 those months you expect much greater impacts on things  
26 that have to do with snow versus rain or with the  
27 persistence of ice.

28  
29 So I'm going to move in to some  
30 examples here in a moment of where those might be  
31 important, but the seasonality of these changes is  
32 very, very key. It's not just that it gets warmer or  
33 that it gets wetter in winter or drier in summer. It's  
34 where these threshold changes near freezing are really  
35 important in some cases for the resources and the  
36 impacts that we would expect in Alaska.

37  
38 So why -- now let's move away from  
39 model output for a minute and towards what it really  
40 matters for in terms of resources and decision-making  
41 and things that matter to people more directly.

42  
43 Why would climate change be important  
44 for wildlife. I think it goes without saying, but I'll  
45 make clear some of the mechanisms that we tend to think  
46 about when we try understand the impacts for specific  
47 resources.

48  
49 Climate affects the seasonality and the  
50 abundance of forage and prey. So for herbivores, how

1 much there is to eat in terms of the plants that they  
2 consume or the prey species that they consume if  
3 they're carnivores.

4  
5                   The timing and the amount of water and  
6 in what form it arrives. Snow versus rain. How much  
7 water there is in streams. What temperature that water  
8 is. Climate affects all those things.

9  
10                   The habitat amount and the arrangement  
11 of it on the landscape. So as time moves on, more  
12 gradual changes in some cases. In other cases, more  
13 rapid. But the cumulation of all these effects in the  
14 terrestrial environment changes the kind of habitat,  
15 say from spruce to deciduous forest or from tundra to  
16 forest. And for species that depend on particular  
17 environments and habitats then you have to ask the  
18 question what impacts does that have for habitat over  
19 the long haul.

20  
21                   When it comes to impacts for species  
22 that we manage or depend on, oftentimes thresholds are  
23 very important. Threshold being when we cross some  
24 point before which there is no impact and then after  
25 which there is an impact. A classic example is water  
26 changing to ice. Right? You cross the 32 degree  
27 Fahrenheit threshold and you become ice or you become  
28 water depending on which direction you go.

29  
30                   For salmon, for example, there are  
31 thresholds in water temperature past which they do not  
32 migrate upstream or in which their metabolisms outpace  
33 the reserves that they have to travel far enough  
34 upstream.

35  
36                   Vegetation changes. In terms of the  
37 phenology or the seasonal timing of when they bloom or  
38 when they fruit -- when they scinesse or die back in the  
39 fall. All of those things have thresholds involved.

40  
41                   For fire and insect effects on forests,  
42 there are specific thresholds for the life cycles of  
43 pests and also for whether or not fire can spread on  
44 the landscape.

45  
46                   For permafrost and thermokarst --  
47 anyway, the point is -- is that threshold impacts --  
48 relatively sudden changes in the physical environment  
49 can have relatively large impacts that we didn't see  
50 before. The changes aren't always gradual. They don't

1 always creep up on you.

2

3                   A classic example is stream  
4 temperature. This is just an example from Southcentral  
5 Alaska where there's a relatively dense network of  
6 stream temperature monitoring stations. And what we  
7 see in this part of the State is generally that as air  
8 temperature increases and the climate warms, in the  
9 smaller, non-glaciated streams you get increases in  
10 stream temperature that roughly parallel the air  
11 temperature.

12

13                   When you have a glacier in the system  
14 or abundant groundwater, then those changes are  
15 relatively buffered. So some of the tributaries to the  
16 Susitna River system, for example, roughly have the  
17 temperature in the streams with a trend very similar to  
18 the air temperature, whereas in the river system as a  
19 whole it might be more buffered because of the glacial  
20 inputs and the groundwater inputs.

21

22                   So these are really key when you start  
23 to look at local effects on impacts. It's not that all  
24 of the salmon everywhere, all the time, will be  
25 affected the same way. So the regional details matter  
26 a lot. Has implications both for resident and  
27 anadromous fish, even fish that migrate within river  
28 systems with different times of the year. So it gets  
29 pretty complicated pretty quickly, but the point is --  
30 is that the impacts are real to anyone who depends on  
31 those fishes.

32

33                   A great example of some modeling work  
34 that's been done in the Bristol Bay system in the Wood  
35 River watershed by folks at University of Washington,  
36 on the left are the density of spawning fish relative  
37 to the day of the year among several different  
38 relatively small streams in the Wood River system. And  
39 you can see they're spread out over the warmer part of  
40 the year, from roughly the end of June, early July, all  
41 the way towards early fall. And different streams peak  
42 in the density of fish at different times.

43

44                   And actually it turns out that for  
45 bears in this system, the variation in where those fish  
46 are and the fact that they're spread out over a long  
47 period of time allows bears to use different streams,  
48 because they can go between streams and have a much  
49 longer time frame over which they can develop the body  
50 condition needed to overwinter effectively.

1                   When you increase the temperature by  
2 roughly four degrees Fahrenheit and then decrease the  
3 snow pack to 20 percent of the historical, which is a  
4 reasonable scenario for the end of the century, you  
5 have the effect of pushing those density of fish later  
6 in the season and condensing them all into the same  
7 period of time, so the bears have a shorter period of  
8 time upon which to draw from those resources.

9  
10                   And so these kinds of impacts where the  
11 timing -- the seasonal timing of the availability of  
12 foods and the way they propagate through an ecosystem  
13 are very, very important. It's worth remembering that  
14 these are simulations and not at all necessarily  
15 confirmed yet by observation. But they're the kinds of  
16 things that we should begin to think about in terms of  
17 changing the seasonality of impacts.

18  
19                   Transportation and access to resources  
20 in both winter and summer is an issue that is beginning  
21 to receive much more attention. Whether it's dependent  
22 on river ice, sea ice or permafrost, in much of Alaska  
23 a lot of the access to subsistence resources is  
24 dependent on what people in my line of work call the  
25 cryosphere or the frozen world. Things that have to do  
26 with ice.

27  
28                   Here's a set of trends for the number  
29 of days in March that are above freezing in the  
30 Interior, near Fairbanks, in just three different  
31 models. The point is -- is you see increases in the  
32 number, the size of these bars. And as they march  
33 forward in time, the models project a much larger  
34 number of days above freezing in the springtime.

35  
36                   Effectively, likely you could assess  
37 having, you know, less access to river transportation.  
38 Frozen rivers being less reliable in the future. It's  
39 also worth noting that there's a lot of inter-annual  
40 variability in those years in the future. So the years  
41 would be predictably less effective for transportation.  
42 Some years would still be good. Others not good. And  
43 that makes it more difficult to predict in terms of the  
44 clear access to resources over time.

45  
46                   Karen brought up the integrated  
47 ecosystem model work that we are doing with our  
48 colleagues at the University of Alaska Fairbanks and  
49 SNAP. And this is a model that's designed to take  
50 several existing pieces of information, including

1 climate effects on fire, climate effects on vegetation,  
2 and climate effects on permafrost and understand how  
3 they'll interact to change the landscapes, in  
4 particular on the North Slope, in the Arctic, and then  
5 in the Interior of Alaska and what that means for the  
6 kind of habitats we might expect to be available to us  
7 on the landscape going forward in the future.

8

9                   The whole model is predicated on the  
10 idea that the historical habitats with which we're  
11 familiar and the patterns that we have relied on them  
12 for in our recent history are not the ones that we'll  
13 see in the future, because climate affects all of these  
14 parts of a system so profoundly. So we're trying to  
15 understand the interactions and what they mean, not  
16 just the individual pieces of the puzzle and what  
17 implications that has for conservation action.

18

19                   The first part of this is permafrost.  
20 And it goes without saying that permafrost is more  
21 vulnerable and less predictable as you increase  
22 temperature. These are just two maps of Alaska in the  
23 recent past and then the model projection for the  
24 change in future permafrost based on temperature near  
25 the surface of the ground. And there are more reds and  
26 lighter blues in the future version. All that means is  
27 that there are big changes in the discontinuous  
28 permafrost zone in the Interior.

29

30                   So this has large changes both in the  
31 surface vegetation and then also the role of  
32 infiltration of water. When you have permafrost, water  
33 is more available, stays on the landscape longer. Not  
34 everybody knows that Fairbanks gets about the same  
35 amount of precipitation as Tucson, Arizona. But the  
36 reason it's as productive as it is is that the water  
37 doesn't have anywhere to go have the year because it's  
38 cold. And then it stays near the surface a lot of the  
39 rest of the year because of permafrost. So when you  
40 have infiltration, things can change relatively rapidly  
41 in terms of the water availability to vegetation.

42

43                   And it's a little easier to talk about  
44 fire, particularly after last year's fires in the  
45 Interior. But people who've been here for a while know  
46 that similar years have occurred in the past in some  
47 ways in the last couple of decades. But relative to  
48 the Lower 48 of course we have a very large area that  
49 burns in our big fire years. And one of the big  
50 questions going forward in the future is how much more

1 fire will we see in forests. And then will we see  
2 increases in tundra fires like the ones we've seen  
3 recently.

4  
5                   These are just maps that show the time  
6 since fire in the future, according to two different  
7 future projections. And the reds mean less time since  
8 the last fire. Yellow is more time since the last  
9 fire. And the summary for these slides is that the  
10 time since fire on most of the landscape decreases  
11 quite substantially as you move into the future,  
12 meaning more of that area is burning more frequently.

13  
14                   We know from paleo-ecological studies  
15 that in the past when that happened in Alaska we had  
16 transitions from spruce forests to deciduous forests,  
17 which isn't always bad depending on the habitat that  
18 you're considering. But it does mean a fundamental  
19 change in habitat.

20  
21                   Also for tundra, if the impacts on  
22 permafrost mean a decrease in permafrost then you get  
23 an increase in the forest invasion into the tundra.

24  
25                   So if you want to summarize those kinds  
26 of impacts across different habitats in the Interior  
27 and the North Slope, you get a net increase in forest  
28 over that part of Alaska in the future. Partially  
29 because of climate, but also partially because of the  
30 impact of fire. You get a net decrease in tundra and  
31 grass tundra, but an increase in shrub tundra that  
32 somewhat balances that out.

33  
34                   And so for some species that's a net  
35 win and other species it's a net loss. And so the  
36 kinds of habitat availability that we have in the  
37 future and how they're arranged on the landscape begin  
38 to matter a lot when you talk about whether or not we  
39 can depend on the kinds of historical conditions that  
40 we've come to expect. And the answer here for the  
41 habitat part of the question would be it depends on  
42 where you look. But in this case, no. You're going to  
43 get an increase in forest and shrub tundra and a  
44 decrease in the graminoid tundra that supports lots of  
45 lichen.

46  
47                   So that has potential implication for  
48 ungulates, both moose and caribou. The forage quality  
49 and the habitat availability and the arrangement of  
50 those things on the landscape is key for understanding

1 the impacts for these two very important species. For  
2 caribou, the lichen availability -- and in particular  
3 we're beginning to wonder about extreme events, such as  
4 rain on snow and ice, which affect the animals ability  
5 to forage maybe even before the forage itself changes  
6 much.

7

8                   But the recent historical area burned  
9 and where the caribou are now, I've got the Alaska  
10 Department of Fish and Game caribou herds' map up  
11 there. You can see there's just a coarse overlap here,  
12 but the point is those are the places where we expect  
13 relatively rapid changes in the future. And so now  
14 we're beginning to try and understand what the impacts  
15 might be for caribou and then also for moose.

16

17                   Migratory birds is another piece of the  
18 puzzle that we're beginning to think about quite a lot.  
19 And the map of the Climate Science Center domains that  
20 Karen put up, the Pacific flyways and the birds that  
21 depend at least in some part of their seasonality on  
22 Alaska, almost all of the Climate Science Centers are  
23 involved. And so this is actually a potential  
24 opportunity to understand the impacts on bird species  
25 both in their summertime habitat here in the far north,  
26 but then also in what's going on on the southern part  
27 of their flyways in the wintertime, where they  
28 overwinter.

29

30                   So we're beginning to think about  
31 trying to construct some of the work along these very  
32 large scales, but then also to understand the local  
33 impacts on specific bird species by keeping track of  
34 what's going on both in the winter and the summertime.

35

36                   It's worth noting also that the coastal  
37 impacts -- both the changes in coastal permafrost or  
38 thermokarst activity, coastal flooding and coastal  
39 erosion have very large impacts on bird habitat here.  
40 And as we lose ice along the coast and change the  
41 seasonal timing of sea ice and the exposure to  
42 storminess, we're trying to better understand the  
43 impacts on bird habitat in the summer.

44

45                   So with that I'll stop and note that  
46 this is just a beginning. We're trying to get at many  
47 of the details that allow us to better understand how  
48 likely some of these impacts are and who the winners  
49 and losers are for the species that are affected by  
50 them, but that we are also very much interested in your

1 thoughts on how we can frame our questions better to  
2 better support the decisions that need to be made by  
3 people who actually depend on the resources rather than  
4 just dealing with questions of curiosity that tend to  
5 come out of science.

6

7 So thanks for your attention.

8

9 CHAIRMAN REAKOFF: Thanks so much,  
10 Jeremy.

11

12 Karen.

13

14 MS. PLETNIKOFF: Yeah. Because  
15 Jeremy's information is kind of dense, maybe we should  
16 capture any questions we might have right now before we  
17 move on.

18

19 CHAIRMAN REAKOFF: Well, Harry had a  
20 question back there.

21

22 Harry, go ahead.

23

24 MR. BROWER: Mr. Chair. I just -- I  
25 have more than one question. I have a range of  
26 questions, but in fairness I'll try to be brief on some  
27 of the questions. I'm not sure if they're going to get  
28 answered here and today and where they -- but I don't  
29 know when it's going to get answered.

30

31 The thing is about this LCC, it's again  
32 fairly new. Here's a new process being introduced to  
33 us in regards to what we've already known and  
34 experiencing. The thoughts I don't see is about the  
35 implementation phase. It seems like it's already too  
36 late and a late start in my opinion. But looking after  
37 the facts to try and get at what we're seeing now.  
38 We've already had some experiences over several years  
39 as this thing has been developing. And just getting to  
40 the questions now.

41

42 You know, I have some problems in terms  
43 of who's funding this and how much is -- of that fund  
44 -- is identifiable. You know, we've -- as we talk  
45 about funding for the problems that we currently have  
46 in the subsistence program. Lack of funds. Lack of  
47 funds. Do more for less. And then here's a new  
48 program that's being generated to answer some of our  
49 questions that we've been asking and spending a lot of  
50 money on this effort before we even get to answer some

1 of the questions that we've been asking in the past.

2

3                   So Mr. Chair, I'm not sure if it's in  
4 all fairness to raise a whole bunch of questions at  
5 this time not knowing how much time you're looking to  
6 spend on this subject.

7

8                   Thank you.

9

10                   CHAIRMAN REAKOFF: Go ahead, Karen.

11

12                   MS. PLETNIKOFF: Mr. Chair.

13

14                   CHAIRMAN REAKOFF: Yeah. Go ahead.

15

16                   MS. PLETNIKOFF: Sir, I will not be  
17 able to answer that. I do hear you quite clearly. I'm  
18 not with Fish and Wildlife Service. I'm with my  
19 regional Native non-profit, the Aleutian Pribilof  
20 Islands Association, so I'm only going to speak from my  
21 experience working with the Aleutian Bering Sea Islands  
22 LCC and the Western Alaska LCC. And actually we've  
23 done some partnering with Arctic on different projects.

24

25

26                   The LCCs were drummed up by Congress.  
27 And we're a DOI initiative to address national climate  
28 change issues. U.S. Fish and Wildlife Service is  
29 housing the money, but it's not my understanding that  
30 that money came from the work U.S. Fish and Wildlife  
31 Service should be doing for the mission species.  
32 That's my understanding of how it's built.

33

34                   I don't know that it -- how successful  
35 the LCCs will be in the future, but from my own  
36 personal experience with ABSI (PH), we have done a lot  
37 of amazing science with very, very little funding. I'm  
38 talking less than \$100,000 of project funds a year.  
39 Now, granted that might sound like a lot, but it's  
40 certainly not a lot compared to some of the other LCCs  
41 in the Lower 48 and even here in Alaska. But I think  
42 the important point is that we're getting a lot of  
43 really good science. We're filling a lot of science  
44 holes that mission agencies have not yet been able to  
45 fill.

46

47                   So I do see some value there. But I  
48 completely understand that we do need better data and  
49 that our agencies aren't funded well enough to do that.

50

1 Thank you.

2

3 CHAIRMAN REAKOFF: Thanks, Karen.

4

5 Another question. I had a hand over  
6 here. Go ahead.

7

8 Do you want to state your name?

9

10 MR. KATCHEAK: Yes. My name is Ted  
11 Katcheak, from Stebbins.

12

13 And I just wanted to briefly describe  
14 my observation in the last 20 years of the migratory  
15 bird. Specifically snow goose.

16

17 In the past, we always had snow goose  
18 coming from the Yukon Delta up the coast to Stebbins,  
19 Saint Michael area. And then across to Siberia or Nome  
20 and Cape Espenberg and Siberia and some other place.  
21 So what happened the last 20 years, the migration route  
22 has some changes. Traditionally, it went from the  
23 Yukon to Stebbins, Saint Michael south. And then  
24 across to Cape Espenberg area. But now we -- my  
25 observation, we see the snow goose going south of  
26 Stebbins to north of Yukon Delta. Changes going -- now  
27 they're staging six miles south of Saint Michael, of  
28 Saint Michael and their route goes from there.

29

30 So the traditional winter migration or  
31 fall migration was to Cape Romanzof and Kusilvak area.  
32 That's where the fall migration would go through.

33

34 So I thought that -- I'd like to point  
35 that out for subsistence purposes.

36

37 CHAIRMAN REAKOFF: Thanks so much.

38

39 Your primary presentation is asking for  
40 questions from important issues that need to be  
41 answered. And one of my -- the main questions for  
42 climate change for caribou, which is a huge resource  
43 for subsistence, caribou calve at a key time when the  
44 tussock sedge is in blossom. So as climate change  
45 warms, the tussock blossom keeps occurring sooner and  
46 sooner.

47

48 I want to know, can the caribou keep up  
49 with that pace. That's their primary protein source  
50 for calf production and so that's going to have a huge

1 effect on the recruitment of caribou in the future.

2

3 And that's one of my questions.

4

5 Anybody else in this room have

6 questions.

7

8 We got several questions now.

9

10 Go ahead.

11

12 MR. SHELIKOFF: My name is Antone. I'm

13 with the Kodiak/Aleutians RAC. And on page 29 of the

14 -- what is that -- my book here. In about the middle

15 of the page of 29, environmental changes -- what's that

16 say -- related to climate change reported in Eastern

17 Aleutian communities. And that's really whatever her

18 name is. She forgot -- nobody told her about these two

19 items that I observed.

20

21 There was an increased number of non-

22 native birds, like hummingbirds. You don't see

23 hummingbirds out there in the Aleutians. And another

24 one was less freshwater in the creeks. That was

25 probably 2014 there was not much freshwater.

26

27 But I thought I would point out the

28 issues out.

29

30 Thank you.

31

32 CHAIRMAN REAKOFF: Thank you.

33

34 That's in the next presentation. Yeah.

35 We had -- we want to get statements on the record about

36 -- they're asking for issues.

37

38 Your name. State your name and your

39 question. Go ahead.

40

41 MS. LOON: My name is Hannah (In

42 Inupiaq) Loon. I represent the Northwest Region

43 Advisory Council. And my question is through your

44 scientific methods that we are not familiar with and

45 your scientific mind versus the indigenous and local

46 mind. I don't see you working alongside local

47 knowledge and we are the affected people living in

48 climate change. We are out there in the Village, not

49 city. We don't have the same mind as your mind, but we

50 know local knowledge and how climate is affecting us

1 and our food source.

2

3 How is your report going to help the  
4 economically depressed subsistence person living on  
5 limited sources. Just based on hunting, trying to  
6 hustle for gas just to go out hunting or getting wood.

7

8 Thank you.

9

10 CHAIRMAN REAKOFF: Thank you, Hannah.

11

12 Do you want to answer that question?

13

14 Go ahead.

15

16 MS. PLETNIKOFF: Yeah. One word  
17 answer? I don't -- Hannah, I'm sorry. But I don't  
18 think I have a good answer when it comes to how can  
19 this science improve the economics in a direct,  
20 immediate sense. But if we don't understand what these  
21 changes are, we will be farther behind with our  
22 management opportunities to allow us to be flexible  
23 enough to still get out and hunt.

24

25 I would like to say that -- and we're  
26 running out of time here. I thought we were going to  
27 go short. That Aaron's information has a couple of  
28 areas where we really do work quite closely with  
29 locals, where our work was completely informed by the  
30 direction of our tribes and our local folks on the LCC.  
31 And I think that's a good place to highlight how our  
32 communities can be a little more integrated into that.

33

34 So if you'll allow me, maybe we should  
35 let Aaron go.

36

37 CHAIRMAN REAKOFF: Yeah. I think we'll  
38 let Aaron go. Because I think some of the questions  
39 are going to get redundant with these -- another  
40 presentation here.

41

42 Go ahead, Aaron.

43

44 MR. POE: Okay. Thank you, Mr. Chair.  
45 And hopefully I'll have a little bit of information  
46 here to share the next couple of presentations and  
47 we'll see how much time we have.

48

49 Karen, you can keep an eye on me.

50

1                   We'll show a couple of ways that we're  
2 trying to answer that kind of question. How can we  
3 make this information useful to people even at the  
4 local community level.

5  
6                   So this first bit is a vulnerability  
7 assessment that was focused on the Aleutian Bering Sea  
8 Islands area. Just to acknowledge the folks on the  
9 Alaska ocean observing system and Alaska Climate  
10 Science Center. These folks helped us launch this  
11 project in terms of funding.

12  
13                   And this is the area that we're talking  
14 about. You kind of see shaded in the light blue there.  
15 So that's the region of this ABSI, or Aleutian Bering  
16 Sea Islands Landscape Conservation Cooperative. So it  
17 was focused on the boundary of our Landscape  
18 Conservation Cooperative and those communities that you  
19 see there.

20  
21                   So what we hoped to accomplish with  
22 this was to try and look at some of these climate  
23 projection. The type of information Jeremy talked  
24 about. And find a way to understand better what does  
25 that mean in terms of what are the effects going to be.  
26 What species are going to be affected. Why do we think  
27 that's going to be happening. Is there ways that  
28 climate change is going to interact with other types of  
29 stressors, say for example things like vessel traffic,  
30 so that we can identify some strategies to maybe  
31 mitigate those impacts. So these adaptation  
32 strategies. But then also really understand what are  
33 some of the key pieces of information.

34  
35                   Jeremy talked about we're still trying  
36 to figure out what are some of the direct actions that  
37 will help us understand effects to subsistence  
38 resources. So what are some of the key questions to  
39 help us do that better.

40  
41                   So this project -- I'll go ahead and  
42 just throw these up pretty quickly. Jeremy talked  
43 about some of that in terms of the downscaling  
44 available through the University of Alaska. That's  
45 that SNAP program that Jeremy mentioned. So University  
46 of Alaska Fairbanks. That kind of stuff is available  
47 online.

48  
49                   The second piece actually started  
50 looking at food web affects. And so trying to project

1 changes in things like plankton and zooplankton. And  
2 what does that mean for things like krill that some of  
3 our species depend on. What does that mean for, you  
4 know, fishers, harvesters in this region.

5  
6           So looking at these two different sets  
7 of projections for climate, we pulled together a team  
8 of folks. About 30 folks working anywhere from kind of  
9 A to Z, is what we said. Anthropology all the way up  
10 to zooplankton. So looking at it from the community  
11 perspective. Looking at it from even down to  
12 zooplankton. Looking at it from seabirds, marine  
13 mammals, terrestrial vegetation, and effects on  
14 subsistence and cultural resources.

15  
16           So in very kind of bullet form, getting  
17 the scientists -- kind of folks like Jeremy to put it  
18 in seven words. You know, what is this going to be  
19 mean generally for this region. These are some of the  
20 highlights that we got working with the folks from  
21 University of Washington, University of Alaska  
22 Fairbanks. That we're going to have increase --  
23 temperature increased precipitation generally.

24  
25           We're going to have some increased  
26 storm -- increased storminess, large decrease in cold  
27 winter days, and slight decrease in winter storminess.  
28 And then certainly fluctuating sea ice.

29  
30           And I'll show you an example. These  
31 layers that you see -- these map layers are available  
32 online, but here's a projection of winter sea ice. So  
33 this is kind of what the current extent of winter sea  
34 ice might be like in a February or a March in current  
35 time.

36  
37           And you can look at it in 2040. And so  
38 just to kind of flip back and forth. It doesn't maybe  
39 look like a huge change at a whole, but if you start to  
40 look a little bit closer you now see that places like  
41 Bristol Bay -- places like the tip of the Alaska  
42 Peninsula may not have any winter sea ice at all by  
43 2040. So pretty -- pretty big, substantial changes.

44  
45           So trying to understand what this might  
46 mean, effects on key forage fish species, which then  
47 cascades up the food chain to have effect on species  
48 that we might harvest. Things like PSP and through  
49 these pathogens that might be increasing as we have  
50 hotter -- or warmer water temperatures. Increase in

1 nuisance species.

2

3                   Again, a lot of this information was  
4 pulled together in chapters for this vulnerability  
5 assessment that actually have been influenced and  
6 informed by traditional ecological knowledge from  
7 social scientists that are working in communities in  
8 the Bering Sea.

9

10                   So things like ice-dependent seals  
11 having to make landings and forced to haul on land more  
12 often. Maybe having to pop on land. Ice seals have to  
13 switch to that kind of a strategy.

14

15                   What does this mean for communities.  
16 Certainly, if we talk about some of the risks and  
17 having to travel further to go after fish stocks.  
18 Maybe some of that increased storminess. There's  
19 definitely increased risk to the harvesters themselves,  
20 whether you're a commercial or a subsistence harvester.

21

22

23                   Things like having to change the timing  
24 and the practices. Karen mentioned that a little bit.  
25 But damage to infrastructure. Even to archeological  
26 sites or important cultural sites in some of these  
27 regions that things that people identified as at-risk.  
28 And increased vessel traffic again with the receding  
29 sea ice. Different ways that vessel traffic might  
30 start to work its way into places it hasn't been. And  
31 again the increased prevalence of pathogens. Things  
32 like paralytic shellfish poisoning.

33

34                   So we took the results of this  
35 assessment actually out to Unalaska, the largest  
36 community in the region that I work in. And basically  
37 had kind of a town hall type session. So we had a  
38 conversation kind of like this, only we had two hours  
39 to do it. And we were able to have a really focused  
40 discussion about here's some of the things that we  
41 think are happening, but then really hearing from folks  
42 in that community. What are you guys seeing that's  
43 happening. Here's some things that we think are  
44 important. What do you guys think is important. So  
45 really being able to have kind of two-way dialogue.

46

47                   We actually did it with kind of a fun  
48 mechanism. I don't know if you guys have done this  
49 before, but like they have the little clickers where  
50 you can do live polling. And so what this slide is

1 showing here is you basically can see the live  
2 audience. So you can ask a question -- an audience --  
3 what their perspective is on a topic. And you can see  
4 what everyone in the room is thinking about it and then  
5 have some more discussion.

6  
7                   So kind of ways like this I think maybe  
8 are ways to figure out a way to involve communities  
9 more in discussion about what's important when it comes  
10 to climate science and climate research.

11  
12                   So just really quickly, some of the  
13 things that we heard from folks is hey, we -- you know,  
14 we think more research -- just even understanding the  
15 basics in a place like the Aleutians about how is air  
16 temperature -- how is precip going to change.

17  
18                   One of the things we did hear -- and I  
19 think it was Antone. You mentioned that the decrease  
20 in water in streams in the summertime was something  
21 that we hadn't found in our assessment, but that came  
22 up in our consultation with the communities to kind of  
23 -- through that discussion in Unalaska.

24  
25                   Some things they wanted to have  
26 prioritized concern about was how is climate related to  
27 -- or might change commercial fishing practices. So  
28 again kind of an interaction between an industry and  
29 the climate itself and how is it going to affect  
30 subsistence harvest was certainly in the top of  
31 people's minds in Unalaska as well. And then again  
32 marine vessel traffic.

33  
34                   So just some quick kind of highlights.

35  
36                   And maybe I'll jump right to the --  
37 kind of the focus of the species that came out. So  
38 while walrus and sea otters were some of the species  
39 that folks were most concerned about. Related to  
40 birds, so things like puffins. And they would throw  
41 murrelets in that same category as far as you might see  
42 changes happening to those birds, that mean there's  
43 larger changes that are happening maybe for marine  
44 mammals or some of the top predatory fish that people  
45 are after. Things like mackerel. And then you also  
46 see kind of salmon pollock and red king crabs as some  
47 of the key species that people harvest from that  
48 region.

49  
50                   Some of the questions that were

1 identified again by this assessment group -- this kind  
2 of top 30 experts were these type of topics. So try to  
3 understood food web impact, like I mentioned with the  
4 sea otters and with the birds. Trying to actually have  
5 more community engagement and more community dialogue  
6 about climate adaptation. So what if -- what do we  
7 know about changes in the climate. How might we do  
8 things differently, whether you're a community.  
9 Whether you're industry. Whether you're a government  
10 agency. And folks identified that as a really  
11 important need in this region.

12  
13 Pathogens from marine species. Again,  
14 those kind of pathogens that can then spread to people  
15 as well. And some of these other topics, too. Again  
16 looking at everything from kind of body condition of  
17 young of the year for some of those key subsistence  
18 fish. So a pretty specific question there. To looking  
19 at just general risks associated with infrastructure  
20 and cultural sites.

21  
22 And I guess I would just quickly make a  
23 plug here, too, that there's many of these things  
24 beyond climate change. You know, invasive species,  
25 marine vessel traffic, contaminants and pollutants.  
26 These are certainly at the top of mind for a lot of  
27 folks in our region and I imagine for folks in this  
28 room as well.

29  
30 And so I think we'll pass these fine  
31 folks with the credits here real quickly, but I just  
32 really want to acknowledge a whole bunch of people  
33 contributed to this work and certainly do my best to  
34 try and represent them.

35  
36 And I guess, Karen, do you want me to  
37 jump on to the next one or do you want to pause?

38  
39 Okay. So I'll just do a portion of  
40 this next one. And basically this is an effort that  
41 three of the Landscape Conservation Cooperatives -- the  
42 LCCs -- are working together with Aleutian Pribilof  
43 Islands Association and we're trying to kind of get at  
44 this question. And it kind of maybe gets sort of to  
45 your question, Hannah, of how could we provide  
46 information to people in a way that would help them in  
47 their day-to-day lives. Whether they're a community  
48 member or a community leader. And so we're launching  
49 this effort to try and do that.

50

1 I really just want to throw all of  
2 these organizations up on the board here to -- so folks  
3 can see this. Because it really is one of these kind  
4 of cast of thousands type efforts. And includes folks  
5 from Bristol Bay Native Association. I saw Verner  
6 Wilson earlier. And I know Zack Stevenson helped us  
7 initiate this when was with the Northwest Arctic  
8 Bureau. So there's a whole -- been a whole bunch of  
9 people behind the scenes making this work. Again, so  
10 representing a lot of people's work here.

11  
12 But basically what we're trying to do  
13 with this project is really try to see if we can pull  
14 together a group of folks that are interested in  
15 coastal adaptation. So how could we pull together  
16 communities working with agencies, working with tribes,  
17 working with NGOs who might be interested in this  
18 coastal adaptation responses.

19  
20 And then finding a way to do that so  
21 that we're having these discussions in a really -- in a  
22 two-way information exchange. So we're coming in kind  
23 of like we are today with here's some of the latest  
24 data information and tools, but hearing back from those  
25 communities about how we can learn from them and maybe  
26 tune up our efforts as a result of that. And again  
27 trying to pull people together to work on ways to maybe  
28 get more resources to -- dedicated to understanding  
29 what some of these issues are and helping adapt to  
30 climate and coastal change.

31  
32 And the most important thing about this  
33 project I think is again we don't -- there's many, many  
34 reports that are written. Many assessments that have  
35 piled up. And basically kind of show people, you know,  
36 here's what's coming for your community. But we want  
37 to try and find something that really is more like a  
38 handbook. Something that's like a tool kit that people  
39 could literally use to help make decisions.

40  
41 So really quickly, three audiences here  
42 that I'll mention. So we had tribes and communities as  
43 one. Kind of resource managers, land managers.  
44 Largely this is in kind of the Western Alaska area.  
45 I'll show you a map here in a second.

46  
47 And then we kind of -- like on this  
48 third audience is really almost like an infomercial  
49 kind of thing. Trying to show folks like congressional  
50 delegation. Trying to show folks like Native

1 corporations, tribal leaders, the governor or even  
2 Denali Commission. Some of these entities that have  
3 the resources or maybe know some people who know some  
4 people who have the resources to help address some of  
5 these issues.

6  
7 So trying to highlight some of the  
8 challenges for places like Coastal Arctic Alaska when  
9 it comes to climate adaptation.

10  
11 So here's the map of the project area.  
12 I probably should have led with this so you could see  
13 the area that I was talking about. But basically what  
14 we're hoping to do through this project is have these  
15 four hub workshops in these four communities. So  
16 starting in Nome in May and then moving to Unalaska in  
17 August, King Salmon in October, and Kotzebue in  
18 November.

19  
20 And the point of this again is coming  
21 in and sharing this kind of the latest data information  
22 and tools that relates to climate change, to some of  
23 the coastal threats, and really again have this two-way  
24 dialogue. And hopefully through the course of these  
25 workshops, which are going to be two-day workshops,  
26 have an opportunity to really connect managers.

27  
28 So maybe the National Park Service is  
29 doing something that comes to monitoring that could  
30 also be really informative to the City of Nome. And is  
31 there some way that we could kind of tie -- maybe build  
32 a bridge between them to formalize that information  
33 exchange better.

34  
35 So here's the quick dates. And again  
36 just kind of a shout out and a plug to all the people  
37 that are involved. But those are the four workshops  
38 that are planned right now. I'll point out at the  
39 bottom. Certainly we don't have the full statewide  
40 coverage in this. We had a certain amount of funding  
41 that we were able to get through LCCs and then Karen  
42 was able to get a grant through BIA to be able to help  
43 expand this to some other communities, but we're  
44 definitely interested and have had some folks say this  
45 would be helpful for communities like Barrow and  
46 Bethel. And I've heard similar from Southeast  
47 communities as well.

48  
49 So key at this assessment -- and Karen,  
50 you should let me know how much time before.....

1 MS. PLETNIKOFF: You're doing good.

2

3 MR. POE: Doing -- okay. Is really  
4 this thing that we're calling kind of the toolbox. And  
5 it has -- it's basically almost like a textbook to help  
6 guide some of the discussions during these workshops.  
7 And it basically has three different parts.

8

9 One is trying to understand what are  
10 some of the latest information on the drivers of  
11 environmental change. So the type of stuff that Jeremy  
12 presented. Or, you know, there's different coastal  
13 erosion models. How can we help people understand  
14 maybe what's coming their way as we look further into  
15 the future.

16

17 And then there's trying to pull all  
18 that information together in terms of what does it  
19 mean. What is the impact if you're, you know, a  
20 coastal manager or if you're a community member or if  
21 you're a subsistence community. If you're, you know,  
22 someone in a leadership position that's making these  
23 kind of decisions. Trying to understand how these  
24 different kind of drivers work together.

25

26 And then kind of the section of this  
27 tool kit really tries to be some case studies. Some  
28 examples of what you can do. What are some things that  
29 communities have already done to address something like  
30 coastal erosion. Or what are some communities that are  
31 already doing sort of climate adaptation planning  
32 efforts.

33

34 So I just want to find out -- we have  
35 had a couple of discussions to help inform this effort.  
36 We launched this project about six or eight months ago,  
37 so we presented it at BIA Tribal Providers in Alaska  
38 Forum on the Environment. And maybe some folks came to  
39 those sessions. But these are some of the things we  
40 heard from folks about that they were interested in  
41 learning more about and think should be feature topics  
42 within these workshops.

43

44 So just a quick kind of snapshot.  
45 Again, to try and show more of what we're talking  
46 about. This part one of the toolbox would be the short  
47 kind of one page, two page summaries of here's what's  
48 known about coastal erosion in this region. Here are  
49 some tools that you can literally use to try and  
50 understand, you know, what coastal -- or what erosion

1 risks might be happening within your vicinity.

2

3                   So these are some of the topics again  
4 informed by those discussions that we had a BIA Tribal  
5 Providers and AFE and with some informal interviews  
6 from folks in the region.

7

8                   Here's an example of one of the tools.  
9 Again, trying to get an actual thing that folks can go  
10 online and look at. This was something that was funded  
11 by the Western Alaska LCC and a whole bunch of  
12 partners, including NOAA and state agencies as well  
13 worked on this, but basically it's a tool that you can  
14 look at the changes in erosion based on 1970s satellite  
15 photos and the most -- more contemporary -- more recent  
16 satellite photos. So you can kind of see some of these  
17 areas that have large amounts of erosion going on.

18

19                   Another tool that my LCC is working on,  
20 Aleutian Bering Sea Islands, is trying to pull together  
21 a whole bunch of information about vessel traffic data.  
22 So vessels that are over a certain size -- 300 tons --  
23 have to have a transponder on them. It's like a geo-  
24 locator basically that pings their location as they go  
25 through their transits. And so we were able to pull 70  
26 million some points from across three years for vessel  
27 traffic through the Aleutian Bering Sea Islands into a  
28 space where we can share it with folks.

29

30                   And you can kind of summarize that  
31 information. In this case looking at it by month. So  
32 you see April, May, June. You start to see traffic  
33 going up through the Bering Strait. September  
34 continues. October cuts off again largely because of  
35 the sea ice. So this is an example of one of those  
36 types of traffic. And we've done it for a couple other  
37 vessel as well. Again, something's that not directly  
38 related to climate change itself, but certainly this  
39 traffic change could be a result of that.

40

41                   So again that part two of it was really  
42 trying to pull this stuff together. The concept that  
43 we have here is to spell this stuff out on big posters.  
44 Kind of 36 by 48 inch things. Both in terms of a  
45 communication tool to talk about this, but also as a  
46 discussion tool. So as we go into these workshops we  
47 plan to sit people down at round tables, have them talk  
48 about this topic. What are some of the things that  
49 they're seeing when it comes to things like, you know,  
50 sea ice change. How is that affecting them. And  
51 trying to capture that information in this kind of a

1 graphic way that they, you know, potentially you can  
2 share with others and help convey the story much more  
3 easily about what's going on.

4  
5                   These are some of the topics that we're  
6 hoping to cover on those posters. So things like  
7 changes in the marine environment. Things on the  
8 coastal edge habitat. Things like erosion inundation  
9 and threats as a result of food -- or resulting to food  
10 security from some of these changes as well.

11  
12                   So this is kind of part three. This is  
13 the last part of this toolbox. This is actions and  
14 strategies. So literally what are things that people  
15 are doing right now. In some cases, you know, folks  
16 are doing vulnerability assessments or risk assessments  
17 to try and understand what parts of their community  
18 infrastructure might be most at-risk from things like  
19 coastal inundation or coastal erosion.

20  
21                   There's a number of communities that  
22 are doing climate change preparedness planning. BIA  
23 did some grants for that. So I know the community of  
24 Unalaska, through the Tribe, and Nome Eskimo community  
25 are doing some of those that will be featured in these  
26 workshops.

27  
28                   But there's also a whole bunch of  
29 efforts -- again kind of this communities taking the  
30 matters into their own hands and doing some adaptation  
31 efforts like building sea walls with local materials,  
32 getting money from CDQs. On the case -- I think it was  
33 Newtok was able to -- or Shaktoolik, sorry, was able to  
34 do some work. Kind of taking it upon themselves and  
35 being able to -- and so we want to share an example of  
36 that case study with folks that come to these  
37 workshops.

38  
39                   Other examples is trying to, you know,  
40 show where there might be adaptation to shift to mobile  
41 infrastructure or buildings or some -- show some  
42 innovations in subsistence practices that one community  
43 is using and maybe share that with some other  
44 communities.

45  
46                   And so with that breathless description  
47 of those two projects jammed together, again just these  
48 folks.

49  
50                   And want to see if we have time for

1 questions.

2

3 And I can throw your questions back on  
4 the Board, too, Karen.

5

6 MS. PLETNIKOFF: Yes. Do that.

7

8 CHAIRMAN REAKOFF: Thanks, Aaron.

9

10 I think we've got about a half hour for  
11 question and answers. And so I'm.....

12

13 MR. POE: Great.

14

15 CHAIRMAN REAKOFF: There's a bunch of  
16 hands in the back here. And we've got one from Calvin.

17

18

19 MR. MOTO: Hello. Me?

20

21 CHAIRMAN REAKOFF: Yes.

22

23 MR. MOTO: Okay. I have some  
24 observations of this from this winter's trying to go  
25 subsistence hunting. We've had a different type of  
26 winter this year. We never got any snow until end of  
27 December and therefore it was difficult for our people  
28 to go out hunt. It did snow for a while. Then it  
29 rained for three days. Then the tundra flooded so we  
30 couldn't go up to the hills where the caribou was.  
31 This climate change is affecting the way we hunt --  
32 have to hunt and have to try to gather whatever we need  
33 to subsist.

34

35 But I just wanted to also say that with  
36 this climate change we've seen some parasites on some  
37 of our fish, some of our seals, some of our -- and it's  
38 kind of bad. We couldn't go on the sea ice all winter  
39 until almost February. Open water. But now we're on  
40 the Kotzebue Sound. Our Village is on the Northern  
41 Seward Peninsula and we're close to the Bering Straits  
42 National Park. The Park there. And we have a hard  
43 time trying to get to the Park for hunting because it's  
44 west of us when there's no snow. Therefore, it's  
45 difficult for our hunters to get caribou. Because they  
46 share with everybody. All the people who can't hunt.

47

48 And some of us have to go to a store  
49 where you could buy a steak for \$23. And, you know,  
50 it's really different up there in our area. I went to

1 buy one chicken -- 15 bucks. So, you know, that's why  
2 we need this caribou.

3

4 Muskox we hardly able to get them this  
5 year because they move around quite a bit.

6

7 But I just wanted to share with you the  
8 hardships some of our hunters are having. It's not too  
9 much hard to get. It's how to get there. Because of  
10 the climate change, it's difficult.

11

12 And what we want to know is if they  
13 would do a study on some of our parasites on some of  
14 our seals and stuff. We need some kind of data whether  
15 it's safe to eat the seal or the caribou or whatever,  
16 muskox, moose. We harvest two moose. One of them we  
17 had to throw away because the meat was rotten all the  
18 way in. So it's just -- it's been kind of difficult.  
19 I just thought I would share with you.

20

21 CHAIRMAN REAKOFF: Thanks, Calvin.

22

23 Do you have a response to disease  
24 inventory, parasites?

25

26 MS. PLETNIKOFF: The local  
27 environmental observers program that the Alaska Native  
28 Tribal Health Consortium runs is one place where this  
29 data would be really valuable to go in. And if you're  
30 not the person who would provide that data in your  
31 community, perhaps your tribal environmental  
32 coordinator would be willing to put that information  
33 into this database that if you put information in, you  
34 can protect it. It will be followed up on with some  
35 sort of professional to find out whether or not this is  
36 a thing we've seen before or not.

37

38 And that's one place where these  
39 important observations can be captured and shared and  
40 followed up on. So I want to emphasize the follow up  
41 on part.

42

43 Yeah. Thank you.

44

45 CHAIRMAN REAKOFF: Thank you.

46

47 MR. JOHNSON: Thank you, Mr. Chair.

48

49 And for everybody in the room, if you  
50 would like to speak with people from that organization

1 and learn a bit -- a little bit more of what they do,  
2 the breakout session this week on holistic management  
3 will provide an opportunity to meet some of those  
4 people and learn a little bit more about what they do  
5 and interact with them.

6

7 Thank you, Mr. Chair.

8

9 CHAIRMAN REAKOFF: Thank you.

10

11 Harry's had his hand up there for quite  
12 a while.

13

14 Go ahead, Harry.

15

16 MR. BROWER: Thank you, Mr. Chair. I  
17 was about to extend my arm as much as I can.

18

19 (Laughter)

20

21 MR. BROWER: Anyway, again thank you  
22 for the presentation.

23

24 I still have some issues with what I'm  
25 hearing, Mr. Chair, and in regards to implementation of  
26 this process and to move forward on it. We still have  
27 a whole new learning curve and we can't learn about it  
28 in one setting. I think there needs to be some kind of  
29 commitment from this LCC about increasing their  
30 funding.

31

32 If that's not going to be the case,  
33 like I stated earlier, you know, it's going to be self-  
34 based management. Fake based management. And looking  
35 -- because there seems to be not enough funds to go  
36 around again. That's the message I got already.

37

38 And then the -- in regards to this  
39 resilience adaptation and change, that's something that  
40 we live with. That's our way of life. And then you're  
41 asking us to raise some questions to you. How do we  
42 get to better document this process. You know, you can  
43 do away with all the regulations and we'll be right  
44 back to our way of life that we lived for thousands of  
45 years. Adaptive, resilient, without regulations. To  
46 subsistence on resources that depended -- provided  
47 sustenance for the communities. That's what it is.

48

49 There's no way around it. We've lived  
50 it for thousands of years. And now here's a new

1 process coming into play and it's going to take  
2 thousands of dollars again to document exactly what  
3 we've been living with for thousands of years.

4  
5 Mr. Chair. Thank you.

6  
7 CHAIRMAN REAKOFF: Thanks, Harry.

8  
9 Response?

10  
11 MR. LITTELL: At the risk of seeing to  
12 know even less than I do, yes. I have hope that we  
13 might better anticipate what we need to adapt to.  
14 That's where we're coming from with this.

15  
16 I have no doubt that the ability to  
17 adapt and the ability to respond to changes in  
18 conditions is better represented in this room than in  
19 any model we can ever construct. So I'm not worried  
20 about that.

21  
22 What I am worried about is how much  
23 lead time we get and the degree to which we can try to  
24 put information that allows adaptation in the  
25 regulatory environment that does exist for better or  
26 worse. It's the one we're working with.

27  
28 CHAIRMAN REAKOFF: Karen.

29  
30 MS. PLETNIKOFF: Mr. Chair. Thank you.

31  
32 Thank you, Harry.

33  
34 I would say that my interest in this  
35 kind of process because I agree with you that we don't  
36 need to reinvent the wheel. We definitely don't need  
37 to -- at least for the folks that I work for -- we  
38 don't need the only option for conservation action to  
39 just be limiting harvest, right? But there needs to be  
40 some other discussion there that allows the managers to  
41 have information soon enough that their only option  
42 isn't just to limit harvest, right? They legally have  
43 to do their job. So we want them to know before they  
44 just stop us what they could know at least. But maybe  
45 what other options might be out there.

46  
47 So that's where my motivation comes  
48 from. But I definitely hear you. There's not enough  
49 money to go around. For me, I just reassure myself  
50 that they never seem to have enough money to begin with

1 anyway, so it doesn't seem like that big of a change.

2

3

I don't know.

4

5

(Laughter)

6

7

CHAIRMAN REAKOFF: Thanks, Karen.

8

9

State your name for the record. Go ahead. I'll take him and then I'm going to go to this side of the room.

12

13

Go ahead. State your name.

14

15

MR. OOMITUK: Steve Oomituk, Point

16 Hope.

17

18

You know, like Harry said, we -- you know, we live this way of life. We've seen the changes. My concerns is the Northwest Passage opening up, you know, to Federal waters. You know, what kind of regulations are we going to -- are we able to make. There's already talk about foreign countries are using it as a shorter passage, you know, to get to the other side instead of through the Panama Canal.

26

27

The animals -- the sea is our garden. The whale. Center of everything to us. The animals sheltered us, fed us, clothed us thousands of years. My main concern right now is the Northwest Passage opening up. All the ships that will be coming through. Contaminations. Do we -- you know, we see more and more cruise ships come through. You know, they have no -- we seen foreign ships. They come onto our land. They don't have passports. When we go to their land we have to have passports and, you know, leave other places that they're walking all over our land, you know, and we're going to see more and more with the Northwest Passage opening up.

40

41

I'm wondering are we going to be able to make regulations on these ships. And transportation, you know, we need to protect our animals that we depend on. Are we able to do that.

45

46

CHAIRMAN REAKOFF: Go ahead, Karen.

47

48

MS. PLETNIKOFF: Thank you, Mr. Chair.

49

50

I would -- I'm not clear on whether or

1 not we will be able to regulate innocent passage  
2 vessels as those are vessels that the international  
3 treaties say we have to allow them to go through our  
4 waters if they're not doing anything else illegal. But  
5 from what I've learned, the Alaska Regional Response  
6 Team and the Coast Guard and the EPA and the State of  
7 Alaska are the leadership of that team, the Alaska  
8 Regional Response Team. And that's the best way to  
9 provide input about your concerns on vessel traffic.

10

11           It might also be of interest to this  
12 group that they are going to start looking at which  
13 areas that have already been preauthorized. This only  
14 counts from the Aleutian Islands, Gulf of Alaska,  
15 Southeast Alaska. But those areas are now being looked  
16 at for whether or not they'll use dispersants -- a  
17 certain amount of miles offshore or if they're high  
18 seas areas where dispersants shouldn't be used in an  
19 oil spill. And that's just a heads up for anyone who  
20 is in the Aleutians or the Gulf of Alaska or Southeast,  
21 that your input will be sought soon. And if you don't  
22 hear about it, then maybe you'll want to reach out to  
23 the Alaska Regional Response Team if you have any  
24 concerns about that.

25

26           But again that's the group where these  
27 kinds of concerns would be best heard.

28

29           CHAIRMAN REAKOFF: Thanks, Karen.

30

31           Ingrid Peterson.

32

33           MS. PETERSON: Hi. Yes. I'm Ingrid  
34 Peterson from Fox Creek Canyon, which is off Kachemak  
35 Bay, which is off Cook Inlet. And I'd just like to  
36 know who has funded this adaptation approach or  
37 philosophy. Where is the funding coming for  
38 adaptation. Is that from the oil companies.

39

40           Because what I think we've got to  
41 concentrate on here and put funding to is not adapting  
42 to the catastrophe, but preventing it. And getting in  
43 there and fixing the problem that is causing it.  
44 Causing global warming. The burning of fossil fuels.

45

46           Why aren't funds going to alternate  
47 energy. Why are the oil companies allowed to make more  
48 and more encroachments into Alaska -- into these  
49 people's subsistence and livelihood.

50

1                   So I want to know who has funded this  
2 adaptation brainwashing we've been discussing for the  
3 last hour.

4  
5                   We're in the sixth mass extinction of  
6 life on Earth right now. And this one has been caused  
7 by man. So I don't think we should just be talking  
8 adapting to things like that.

9  
10                  So please tell me who funded this  
11 mentality of adaption that you've been talking about.  
12 And apparently it's been lots of money. And I know  
13 that's -- the information you've collected is really  
14 important, but the problem is we shouldn't be thinking  
15 adapting to these catastrophes you've been talking  
16 about. We should be starting right now to prevent  
17 them.

18  
19                  CHAIRMAN REAKOFF: Response, Karen?

20  
21                  MS. PLETNIKOFF: If I can.

22  
23                  Thank you, Ingrid. You make a very  
24 good point that no amount of adaptation can make up for  
25 not doing something about the cause. Again, the LCCs  
26 were put forth to address Congress' concerns about  
27 climate change across the nation.

28  
29                  The Aleutian Bering climate  
30 vulnerability assessment I think was funded at like  
31 \$40,000. Something like that. It wouldn't have  
32 alternatively got us off of any fossil fuels. It was  
33 not an amount of money that would have made a  
34 difference on that.

35  
36                  I agree with your base point that just  
37 telling people we'll technologically get ourselves out  
38 of it is something that we should think about. I think  
39 on the other hand, the science already tells me that  
40 it's very likely that there's enough carbon in the  
41 atmosphere to significantly change the ocean's  
42 chemistry in a way that could impact the basis of food  
43 and life in the ocean.

44  
45                  And since that's already a thing, I  
46 think that it's worthwhile spending some of our energy  
47 on that. But you've made your point.

48  
49                  MS. PETERSON: That's correct.

50

1 MS. PLETNIKOFF: It's true.  
2  
3 MS. PETERSON: And it's ocean  
4 acidification is another big problem. We're losing our  
5 sea life to that. The oceans are -- on this planet --  
6 planet Earth, the oceans are dying. That's the facts.  
7 So we're just supposed to adapt to a dying planet.  
8  
9 And what your work is doing is showing  
10 us the effects of all this. But are we going to do to  
11 stop it.  
12  
13 And you still haven't answered my  
14 question.  
15  
16 Where did the money come for this  
17 adaptation approach. Was that from the oil companies?  
18  
19 MR. POE: I can answer.  
20  
21 CHAIRMAN REAKOFF: Go ahead, Aaron.  
22  
23 MR. POE: I mean the work that I  
24 presented is not from the oil companies. That funding  
25 came from Fish and Wildlife Service and from BIA,  
26 Bureau of Indian Affairs.  
27  
28 I mean the concept of adaptation -- and  
29 a climate scientist like Jeremy could probably say this  
30 better. I think is that there is already so much CO2  
31 in the atmosphere that we're going to have to adapt to  
32 changes. Even if we stopped it tomorrow, there are  
33 still changes that are going to unfold over the next 40  
34 years that we may as well be trying to do something  
35 about.  
36  
37 MS. PETERSON: Yeah. I agree.  
38  
39 MR. POE: And I think that's the logic  
40 that.....  
41  
42 MS. PETERSON: I agree that's part of  
43 the problem. That's exactly right.  
44  
45 CHAIRMAN REAKOFF: You've had your  
46 statement. And you've reiterated your statement. So  
47 thank you.  
48  
49 I can appreciate where you're coming  
50 from. I use solar panels at home and I -- but we can't

1 dis -- we have an agenda here.

2

3

I've got Mary Mills up next.

4

5

MS. MILLS: Thank you. My name is Mary  
6 Ann Mills. I'm from Kenai Southcentral RAC. And my  
7 question is what does the acronym LCC stand for. I can  
8 guess climate change, but I don't know what the L  
9 stands for.

10

11

MR. POE: I can answer that. It's  
12 landscape. So Landscape Conservation Cooperative.

13

14

CHAIRMAN REAKOFF: Okay. And so I had  
15 Enoch Shiedt wanted a question. Go ahead, Enoch.

16

17

MR. SHIEDT: Yeah. Attamuk here in  
18 Northwest Alaska. Chairman for Northwest Alaska. You  
19 mentioned climate change. Climate change is here. And  
20 we have to live with it. And what you need to do is do  
21 more studies how to slow it down.

22

23

And I mean there's a lot of studies  
24 that are out there. And you're doing on the phase two  
25 side. You're just going to do what the -- all of the  
26 studies that being out there that being done.

27

28

Also, for Northwest Alaska, we are  
29 being hit hard by cruise ships. Last year alone --  
30 last summer alone just in Kotzebue and out in the bay,  
31 we had 12 cruise ships that went by. Yet the cruise  
32 ship chartered Alaska Airlines. And they had to  
33 charter two planes just to get their clients out, to  
34 get new clients in.

35

36

You should worry about what's going to  
37 happen to the brown water they're leaving out in the  
38 ocean. Our garden. Where we eat. Our food. Our  
39 seals. Our walrus. Our beluga. Our fish that go out  
40 there to grow. I need these -- these things need to be  
41 done.

42

43

Instead of saying maybe we should do  
44 this and that, I need these things. Under reality, you  
45 should talk to the Natives like from North Slope, Nome,  
46 and Kotzebue that's being hit hard. Because the north  
47 funnels and sucks down.

48

49

When I did some study, I even getting  
50 DTT on the moss. And there's a lot of other dangerous

1 stuff that happened. And you need to worry about the  
2 parasites that's happening due to global warming in our  
3 fish, our seals, and our birds. And our disease that's  
4 going to happen. They're going to be -- how bad are  
5 they going to be for us.

6

7 Thank you.

8

9 CHAIRMAN REAKOFF: Thank you, Enoch.

10

11 And so I had Ricky Gease.

12

13 MR. GEASE: Yeah. Ricky Gease from

14 Kenai.

15

16 You were asking for tools that would be  
17 useful. And for communities that are dependent on  
18 salmon, I would think two tools. If we could get some  
19 -- I like the modeling for ten, twenty years out. That  
20 it's important to kind of see trends. But pre-season  
21 or in-season run timing and run abundance information  
22 would be very important.

23

24 If we could get some parameters instead  
25 of just -- for example, most of the State Fish and Game  
26 or the North Pacific Fisheries Management Council  
27 management plans are based on a calendar. And  
28 opportunity is really impacted whether a run is early,  
29 normal or late. And also if the run is, you know,  
30 below normal, normal averages or above average in terms  
31 of the number of fish returning.

32

33 So if there's some way to get in the  
34 toolbox. For managers not to just be based on pre-  
35 season forecasts of what past returns were, but within  
36 two or three months of -- you know, in the springtime  
37 if there was some forecast -- hey, these runs are going  
38 to be early. These runs are probably going to be two  
39 or three weeks late, so we're not butting up against  
40 calendar deadlines.

41

42 Thank you.

43

44 CHAIRMAN REAKOFF: Thank you. That was  
45 a good comment.

46

47 And so I got Gordon Brower on the other  
48 side of -- Gordon.

49

50 MR. BROWER: All right. Thank you.

1 Well, I've just been listening to a  
2 whole bunch of different dialogue and I just thought it  
3 would be good to hear a little bit from up in the North  
4 Slope.

5  
6 And I think some of the questions there  
7 are -- you know, there's a lot of things there. You  
8 can say a lot for the various different questions, but  
9 I think my mindset is a little bit different.

10  
11 You know, when my folks were alive they  
12 would talk about challenges from the 1920s, from the  
13 1940s, and what they heard from their elders, too, that  
14 were very elderly back then. And some of this stuff  
15 that's kind of have big cycles. You know, really big  
16 cycles in climate related things.

17  
18 And, you know, a lot of times we worry  
19 about when somebody's studying something and asking us  
20 to participate. I often come up and think about is  
21 this going to be good for me. Are they going to use  
22 the information against me to do other things like take  
23 our seals away. And those are some of the things I  
24 think about.

25  
26 And I know conservation can be for  
27 different things, but I've seen conservation be a  
28 powerful tool to take away for subsistence. And that's  
29 -- and we had a moratorium on bowhead whales in 1979 or  
30 something like that. Then they're working on our  
31 seals.

32  
33 And, you know, a lot of the gravel  
34 mining for building roads -- I often have buddies that  
35 are working at the gravel mines. And some 60 feet down  
36 in a hole they pull up walrus skulls. And they've got  
37 to be at least, you know, several thousand years old to  
38 be way down inside of a gravel pit like that. But that  
39 same species still exists today.

40  
41 And I happened to help some scientist  
42 do a tree study. And brought him to our own -- our  
43 camp. And took samples. And it was white spruce. You  
44 can cut it up and burn it. It usually comes out of the  
45 permafrost. But, you know, things like that. And  
46 radiocarbon dating on that was like 36,000 years old.

47  
48 So I think our climate goes up and  
49 down. But, you know, it's not a doom and gloom  
50 everything, I don't think, because they say that they

1 need to list the walrus, but yet you've got these  
2 specimens that are in gravel pits and things like that  
3 have got to be very old.

4  
5                   So I think animals have a way of doing  
6 that. What I'm concerned -- because I fish for our  
7 community -- is -- yeah, there is some changes. The  
8 temperature of the permafrost. And for me to put a  
9 whale in my ice cellar, it's not the same temperature.  
10 It's still frozen, but it's not the same temperature.

11  
12                   The fish that I get out of Barrow some  
13 60, 70 miles inland. And I got to store that just like  
14 my folks did. How they taught us. But I'm seeing it's  
15 difficult to preserve them in the way we normally do.  
16 I got to start using a generator and some other things  
17 to try to do the same level of freshness that we're  
18 used to.

19  
20                   So there's things like that that are  
21 changed. And in terms of ice retreat, I think some  
22 folks -- even myself. You know, we've been invaded by  
23 Germans. They don't even speak English. And they come  
24 ashore.

25  
26                   But it only just goes to show that --  
27 you see it on TV all the time. You see this cruise  
28 ship that was sinking in Antarctica. Now, are we going  
29 to be seeing a vessel in distress in these hard to  
30 reach places with no infrastructure or ways to --  
31 because I think that'll impact subsistence when, you  
32 know, oil tankers hit icebergs and things like that.  
33 The infrastructure needed to be more prepared.

34  
35                   I thought I just wanted to add some of  
36 that.

37  
38                   Thank you.

39  
40                   CHAIRMAN REAKOFF: Okay. Thanks,  
41 Gordon.

42  
43                   Yeah. The main question he has was how  
44 is this data going to be used. Is it secure data. Is  
45 it going to be used against subsistence users. That  
46 was the main -- I thought the main part of his  
47 question.

48  
49                   MS. PLETNIKOFF: So the projects that  
50 we presented today -- some of the data came from

1 previous like ADF&G subsistence surveys. That data is  
2 protected along the protocols that the Subsistence  
3 Division uses.

4  
5 Any data that was collected on the  
6 Aleutian Bering climate vulnerability assessment was  
7 freely given. Not proprietary. Not that level of  
8 data. So I don't think any of our programs or projects  
9 that we're sharing today were requesting that kind of  
10 scale or fine detail of data that would need to be  
11 protected. However, whenever we're doing work we do  
12 think about that. Especially at the Aleutian Bering  
13 Sea Islands LCC and Western Alaska LCC, which I sit in  
14 on. And so I know that they are thinking about  
15 protecting people's important information like that.

16  
17 How data in general is used for or  
18 against us -- this is exactly why I think this kind of  
19 work is important. So that we can warn managers or  
20 that we can understand what those changes are before  
21 those managers only choice is to limit harvest to  
22 fulfill their conservation requirements. So that's why  
23 I think this is important.

24  
25 But I completely support protecting  
26 subsistence data in all appropriate ways.

27  
28 CHAIRMAN REAKOFF: So we're at 3:45. I  
29 have time for one more comment. And Patrick has had  
30 his hand up here for the longest of people here.

31  
32 So go ahead, Patrick.

33  
34 MR. HOLMES: Yeah. I'd really like to  
35 thank you folks for coming because it provides a focus  
36 for what I think all the members of all the RACs have  
37 observed over time. And on our RAC I'm known as  
38 Grandpa Pat, the Gabby Geezer, so I'm going to try to  
39 change my talking pattern and get to the point.

40  
41 I have three that I'd like to make.  
42 One, on your gathering information for your upcoming  
43 sessions, if it's at all possible I'm going to try to  
44 get to Unalaska. Our Council has asked for that to be  
45 a priority, but I doubt if we'll make it. But we'd  
46 like to come.

47  
48 When you go, if you would use what I've  
49 learned from working in the Aleutians for over 50  
50 years, is go early. Go to the senior center. Find the

1 elders. I can remember Pat Petrivelli at Atka one time  
2 walking by her place and she patted her porch next to  
3 me and said sit down. I want to tell you stories. The  
4 same with Jacob Cherkason at Nikoski, I talked to him  
5 on the phone for hours before I did my survey of the  
6 Aleutians for salmon in '82. Go talk to the elders.

7

8                                   And I would give that same  
9 recommendation to all at Fish and Game and Federal  
10 managers. When you get a new job or when you've got  
11 your job, before you go and talk to your boss and learn  
12 what the company granite decisions are, go out to the  
13 villages and talk to the people. Talk to the elders.  
14 And ask them what do I need to know. Don't go to  
15 Quinhagak or Akhiok and tell them this is what you're  
16 going to do. This is what we're going to.....

17

18                                   CHAIRMAN REAKOFF: And your number two  
19 question?

20

21                                   MR. HOLMES: That's number two. Thank  
22 you. I need your help.

23

24                                   (Laughter)

25

26                                   MR. HOLMES: Number two is on the  
27 funding solution. I think I'd like to -- I'd hope that  
28 our Councils here can make a recommendation to both the  
29 State and the Federal government -- because they're  
30 both losing money. And I see so much time lost in the  
31 courts. And reasons given to us -- well, we can't do  
32 this because. I think the two of you should quit  
33 bickering over predator control and work on some  
34 solutions.

35

36                                   Because some surgical, minor changes  
37 can make a big difference to science there. So let's  
38 move ahead and let's take the money and pool it so that  
39 we can get basic research and management done.

40

41                                   And I'll leave out all my observations  
42 of the Aleutians for umpteen years. So I'm done.

43

44                                   CHAIRMAN REAKOFF: Okay. Thanks so  
45 much, Pat.

46

47                                   I will state and que off of what Pat  
48 was saying. These Regional Councils -- all ten of  
49 these Councils have transcribed meetings. And during  
50 those meetings, there's Council members are going to be

1 talking about various climate impacts. So you can  
2 actually access a huge amount. And if you type in --  
3 in the search window in those PDFs, you can research a  
4 lot of climate impacts from these counsels. We spend a  
5 lot of time talking on the record. And our court  
6 recorder loves us because she gets five bucks a page or  
7 whatever she gets.

8

9 (Laughter)

10

11 CHAIRMAN REAKOFF: There's a huge  
12 resource right there that can be accessed for some grad  
13 student. Or somebody can come up with a huge amount of  
14 climate impacts from all of these Regional Councils.  
15 And it's right at your fingertips.

16

17 So that's just a word for the wise.  
18 And so we've got to -- I really appreciate your  
19 presentation. We've got to have some -- a couple more  
20 -- we're going to have about a 15-minute break. Come  
21 back and have a couple more presentations and then  
22 we've got to break for the evening.

23

24 So I did want to recognize Craig  
25 Fleener. Came back into the back of the room there.  
26 And he's the Arctic policy advisor for the governor.

27

28 And so thanks for showing up, Craig.  
29 Good to see you again.

30

31 And thanks so much Karen, Jeremy, and  
32 Aaron for your presentation.

33

34 MS. PLETNIKOFF: Thank you very much,  
35 Mr. Chair. And all the RACs. We appreciate your time.

36

37 (Applause)

38

39 CHAIRMAN REAKOFF: So we should be back  
40 here at about 4:05.

41

42 (Off record)

43

44 (On record)

45

46 CHAIRMAN REAKOFF: Gloria Stickwan, are  
47 you in here?

48

49 She wanted to recognize one of the  
50 elders that had been on the Southcentral Council for

1 many years. So she's not back yet. So we're going to  
2 go into our next presentation.  
3  
4 Let's see. Carl.  
5  
6 Yeah. We've got people on the -- Carl  
7 just informs me we've got people on the phone also.  
8 And so we're -- is anybody on the phone. Want to have  
9 any comments.  
10  
11 Is the operator there?  
12  
13 OPERATOR: We're here.  
14  
15 CHAIRMAN REAKOFF: We have people on  
16 the phone then?  
17  
18 OPERATOR: Yes. We do.  
19  
20 CHAIRMAN REAKOFF: Has anybody  
21 requested to speak at this meeting?  
22  
23 OPERATOR: Let me see here. You're  
24 going to press the star one if you would like to speak.  
25  
26 (No comments)  
27  
28 CHAIRMAN REAKOFF: It doesn't sound  
29 like anybody has anything to say, so we're going to go  
30 to our next presentation.  
31  
32 Hello.  
33  
34 OPERATOR: No one has requested to  
35 speak.  
36  
37 CHAIRMAN REAKOFF: Somebody's going to  
38 speak?  
39  
40 OPERATOR: No. We don't have anyone  
41 that wants to speak.  
42  
43 CHAIRMAN REAKOFF: Okay. All right.  
44 Thank you.  
45  
46 And so Carolina -- how do you pronounce  
47 your last name?  
48  
49 MS. BEHE: It's Carolina Behe, is my  
50 full name. Yeah.

1 CHAIRMAN REAKOFF: Okay.

2

3 MS. BEHE: Okay. Okay. Thank you,  
4 everybody for having us here to give some information  
5 about our project that we've been working on for some  
6 years now.

7

8 Some of you are actually contributing  
9 authors to this project and have heard the presentation  
10 a few times, so you'll just have to be a little patient  
11 while we go through it. But then I hope you'll add to  
12 the conversation quite a bit.

13

14 So today we're going to share with you  
15 some -- a little bit about the findings of a project --  
16 a food security project that we've been working on  
17 since 2012 that has to do with food security. But  
18 first I'll share with you a little bit about who we  
19 are.

20

21 So I'm the indigenous knowledge and  
22 science advisor for the Inuit Circumpolar Council for  
23 the Alaska office. The Inuit Circumpolar Council was  
24 started in 1977 by Eben Hopson, Senior, from Barrow,  
25 Alaska, with the idea that Inuit needed to come  
26 together from across the circumpolar to address common  
27 concerns with a common voice. Today we advocate on  
28 behalf of 165,000 Inuit across Chukotka, Alaska,  
29 Canada, and Greenland.

30

31 There's two unique things about ICC.  
32 It's just meant to be like an international arm to  
33 address the same concerns that are at the village. So  
34 it's just another avenue for addressing those two  
35 concerns.

36

37 The two unique things about ICC is we  
38 hold consultative II status at the United Nations and  
39 we're one of six permanent participants at the Arctic  
40 Council. But I'll get back to that part in just a  
41 moment.

42

43 To give you an idea of what some of our  
44 international engagements. The Arctic Council is the  
45 top one for my office, but we also are involved in a  
46 lot of the different U.N. groups and CITES, Mercury  
47 Expert Groups, Conventional and Biological Diversity.  
48 As many different groups as we can to ensure that  
49 there's an Inuit voice at the table.

50

1                   So as I said, we also are one of six  
2 permanent participants at the Arctic Council. And I'm  
3 sure all of you are hearing about the Arctic Council  
4 quite a bit since the U.S. has the chairmanship right  
5 now. But I put this slide up there just to give you a  
6 little bit of a hint of what is going on at the Arctic  
7 Council or the structure of the Arctic Council. And  
8 then my colleague Gilbert I think is going to give you  
9 a little bit more information on it.

10

11                   So what we started with is we have the  
12 Arctic countries. And there we started with we have  
13 the ministers of the Arctic countries. And next we  
14 have the senior Arctic officials and the leads of the  
15 permanent participants. That's our bosses. And then  
16 from there we go down to the Arctic Council and it's  
17 broken up into six working groups.

18

19                   Now, the permanent participants --  
20 before the Arctic Council started in 1996 there was the  
21 Sami (ph) Council, Ripon(ph) which is a Russian  
22 organization that represents approximately 57 different  
23 indigenous organizations across Russia. And then ICC.  
24 We were all founded quite a many years prior to the  
25 beginning of the Arctic Council.

26

27                   Following the formation of the Arctic  
28 Council is the Aleut International Association, the  
29 Arctic Athabaskan Council, and the Gwich'in Council.  
30 Those six groups are meant to advocate on behalf of  
31 Arctic indigenous peoples. And they do it at every  
32 level.

33

34                   So as I said, my boss would be with the  
35 senior Arctic officials at their meetings, but then  
36 also across these six working groups. And these six  
37 working groups address different things from human  
38 concerns to protection of the Arctic marine environment  
39 to the -- the one that I assist with is the  
40 conservation of Arctic flora and fauna, which has a lot  
41 to do with conservation and bio-diversity.

42

43                   What we bring there again is to ensure  
44 that always there's an Inuit voice. That means things  
45 like -- I heard somebody say conservation in the last  
46 session. That means explaining what it means to have  
47 conservation through use. Explaining that getting our  
48 foods actually does have a lot of conservation elements  
49 to it. And explaining different parts like that and  
50 engaging in the different projects and different

1 recommendations that may come up.

2

3                   The things that we work on come from  
4 different layers. So first, every four years our  
5 leadership -- Inuit leadership come together every four  
6 years and they write a declaration that gives us  
7 guidance for the next four years. Right now we're  
8 acting under the (Indiscernible) declaration. The next  
9 general assembly will be in Barrow, Alaska in 2018.

10

11                   When we come back from that general  
12 assembly then our priorities are set within our  
13 countries by our boards. In Alaska, we have a 14-  
14 member board that's made up of our regional  
15 organizations from four regions.

16

17                   You see here I put food security at the  
18 top because food security has been identified  
19 internationally by the ICC General Assembly and also  
20 within Alaska for the last eight years. It's put as a  
21 very top priority that gives direction ICC that no  
22 matter what you're working on, you need to be talking  
23 about food security and making sure that message is  
24 coming clear to the table.

25

26                   Now I mentioned the four regions that  
27 ICC advocates on behalf of in Alaska. This term Inuit  
28 came actually in 1979 when our leadership made a  
29 compromise. And that's because the word Eskimo in  
30 Canada and Greenland isn't thought to be so nice. And  
31 so they made the compromise to say Inuit  
32 internationally. But here we're referring to the  
33 Inupiat, Saint Laurence Island Yupik, Central Yupik,  
34 and Chup'ik. And that's these four regions.

35

36                   These are the four regions that we're  
37 going to talk to you about that this project comes  
38 from. There's 95 tribal councils in these four regions  
39 throughout 81 villages. And they were all engaged in  
40 this project.

41

42                   And when I start to give you a little  
43 bit of information about this project, we're not going  
44 to go over methodology, but it's really important to  
45 share with you that everything I do share with you  
46 today is actually coming from 146 contributing authors  
47 who are all indigenous knowledge holders, all Inuit.  
48 It's guided by an advisory committee made up of all  
49 indigenous knowledge holders and one cultural  
50 anthropologist. And they're found throughout these

1 four regions, all of these peoples. So it's really  
2 important to realize I guess that this is a completely  
3 Inuit-led project.

4  
5 So I'm sure also that you guys are  
6 starting to notice or have noticed for a few years now  
7 this term food security. I mean we're hearing it  
8 everywhere. In politics, in academics, in research, in  
9 the news. We hear it across the board everywhere.

10  
11 But our leadership about six years ago  
12 realized that when they were sitting at these  
13 international tables and they were talking about food  
14 security and saying look, we need to address our food  
15 security. We need to be thinking about this. They  
16 realized that the people sitting across from them were  
17 talking about something completely different.

18  
19 They were talking a lot about  
20 purchasing power, so how much money you had to go to  
21 the store and buy your food. How much nutrients or  
22 calories were in your food. And those are really  
23 important pieces. They're very important. But they're  
24 not everything that we were talking about when we said  
25 food security.

26  
27 And in fact when we started to look at  
28 how people were defining it, we found that there's  
29 about 800 definitions for food security and most of  
30 them have been developed in the last 40 years. Most of  
31 them were developed out of the famines that were  
32 happening in Africa actually. And very few of them had  
33 been written by indigenous peoples.

34  
35 So with that we realized that we needed  
36 to be clear about what we were talking about when we  
37 said food security. And that's how this project was  
38 born.

39  
40 So we know -- what we started to  
41 explain was -- I don't know if everybody can see this,  
42 but this is an image of a food web. We said this is an  
43 Inuit food web. Because we started looking at food  
44 webs and couldn't find any that had feast or education  
45 or language or sharing as part of it. And so we said  
46 well, we need to draw a new food web.

47  
48 Some of those animals are kind of scary  
49 looking if you look at them because I drew them. And I  
50 couldn't.....

1 (Laughter)

2

3 MS. BEHE: And I couldn't get rid of  
4 them. So I don't know. We look at this food web and  
5 everybody here knows yep, that's the Arctic. But the  
6 problem is there's so many people. I guess what  
7 somebody said, so many Germans invading or people from  
8 other parts coming in that aren't seeing everything  
9 this way.

10

11 So one of the ways that was best  
12 explained to me during this project was from an elder  
13 from Toksook Bay, who started to talk to me about what  
14 food security is. And he said that image, that's what  
15 food security is. He said that's what the Arctic is.  
16 And he said the Arctic is all these puzzle pieces. And  
17 these pieces can be language. These pieces are  
18 language. They're culture. They're sharing as much as  
19 they are the walrus and the benthic species. They are  
20 these components. And what's really important is that  
21 these pieces are adjusting and they're working with  
22 each other, but they're all there.

23

24 For us to see the Arctic or for us to  
25 understand food security, we have to see all those  
26 pieces. So the problem happens when people come and  
27 they just take one piece out of there and say I'm going  
28 to look at this whale to understand what's happening in  
29 the Arctic. But there's only that one piece. So they  
30 don't have this whole picture of what's actually  
31 happening or what -- all the interconnecting pieces  
32 that are going to make up the food security.

33

34 So now with the -- the main objectives  
35 were to define food security. Also to identify the  
36 drivers or causes of food security and insecurity and  
37 to create a conceptual framework that could help guide  
38 us through assessment processes.

39

40 You know, here we say Inuit because we  
41 can't be presumptuous. It was only Inuit that were  
42 part of the project. But we know from our friends and  
43 from our colleagues that this is very true for many  
44 other indigenous peoples. Not just Inuit.

45

46 So the first thing that happened was  
47 needing to define it. And this is the definition. If  
48 you look in that tri-fold that you have, you'll see the  
49 full definition. But I think in your pamphlets you  
50 have a -- maybe you have that summary. And on page 11

1 it tells you the full definition. It's quite long  
2 because we're talking about everything. But I'll just  
3 read the very first line to you.

4  
5 Alaska Inuit food security is the  
6 natural right of all Inuit to be part of the eco-  
7 system, to access food, to caretake, protect and  
8 respect all of life, land, water, and air. It's really  
9 important to set this one right, right from the  
10 beginning. Because this is saying we're part of the  
11 eco-system. It's not something separated out.

12  
13 So now the next thing -- or not the  
14 next thing. But the next thing we're going to share is  
15 the conceptual framework. Conceptual framework is used  
16 to put all the concepts together that we think are  
17 needed to help explain to people what we're talking  
18 about. Again, you can see this on the screen or in  
19 that tri-fold or in the little booklet that was given  
20 to you.

21  
22 Now, this is a drum. Because a drum is  
23 very important to us. So in the center there is food  
24 security. And what surrounds it is what's  
25 characterizing food security. Surrounding that are the  
26 dimensions or things that are needed to support what  
27 characterizes it. And then around that are the tools  
28 needed to obtain food security.

29  
30 On the outside it's like sinew that's  
31 holding it together. That's the spirit of all. And  
32 then we have the drum handle. And that's the element  
33 that's required to hold up everything.

34  
35 This is a food security conception  
36 framework after we fill it in. This is what took us  
37 three and a half years to draw actually. But -- so  
38 again in the center we have food security. Surrounding  
39 food security is what it's characterized by and that's  
40 environmental health. Remember the environment is  
41 everything. It's that entire puzzle.

42  
43 Then surrounding that are the six  
44 dimensions required to support environmental health.  
45 That's availability, Inuit culture, decision making  
46 power and management, health and wellness, stability  
47 and accessibility.

48  
49 We don't have a lot of time right now  
50 so I won't go into how we define each one of those

1 terms. But it's important just like food security to  
2 not assume what they mean. So the term health and  
3 wellness, it's not just people. It's not just animals.  
4 It's everything. So the health and wellness of the  
5 sky, the water, the animals, the relationships between.

6  
7 Now, the tools that we need to support  
8 those are policy, true co-management, and knowledge  
9 sources. Knowledge sources, meaning equitable  
10 engagement of both indigenous knowledge and science.  
11 And what's holding it all together is that sinew,  
12 remember. And that's the spirit of all. And here you  
13 see it written in the four languages that are from  
14 those four regions.

15  
16 The handle holding the drum up is food  
17 sovereignty. This is true of every culture of every  
18 single country, that without food sovereignty we will  
19 not have food security. There's actually a lot of  
20 academics that debate today that the United States even  
21 has food sovereignty because we don't produce a lot of  
22 our own food.

23  
24 So the real key point here of this  
25 puzzle -- no, not the puzzle, but just like when we're  
26 thinking about the puzzle is that all of these pieces  
27 are together. And the thing that I'm supposed to  
28 always stress -- what the Advisory Committee told me to  
29 always stress is that if any piece of that drum is not  
30 there, if any piece is breaking, then food security is  
31 not going to exist.

32  
33 So we have to think today, like are  
34 those pieces strong here in Alaska today.

35  
36 So we want to think about how they're  
37 interconnected to each other because that's how we  
38 start to understand what cumulative impacts there are.

39  
40  
41 Now as I mentioned, it was also meant  
42 to identify the drivers of food security and  
43 insecurity. I won't show all of them to you today  
44 because there is a lot, but here's some examples.  
45 These drivers are what led us to know what those  
46 dimensions are. So, for example, you can see a lot of  
47 these would go under Inuit culture, such as transfer of  
48 knowledge and language. Here's also others, such as  
49 value of food and spirituality, language and  
50 terminology, respect.

1                   The real important point of this again  
2 is that none of these drivers are in isolation. It's  
3 not one thing that's going to lead to food security.  
4 It's a combination of these things with each other.

5  
6                   Now the other thing that came out of  
7 this project was creating these concept maps to help  
8 explain how these things are interconnected and how  
9 they are associated with each other. So this one is  
10 showing us sea ice coverage, sea ice thickness and  
11 timing of sea ice formation and break up. If you look  
12 at that handout you guys were given, you can see this  
13 better on page 16 and 17. But I'll just split it up  
14 here a little bit to give an idea of how these are  
15 explaining things.

16  
17                   And we did just recently have a  
18 workshop in Canada where it seemed to go over really  
19 well, that some scientists were understanding how these  
20 connections were and what it meant. So if we think  
21 about a decrease in sea ice coverage, well that can  
22 cause a decrease in accessibility to hunting areas.

23  
24                   That causes a need for hunting  
25 strategies are changed because more time is required  
26 for hunting to travel further distances. There's an  
27 increase in the need for fuel and for other resources.  
28 You can look through that and it will go through many  
29 different types of information.

30  
31                   On the next slide we'll just look at  
32 one that goes directly to some animals maybe. We've  
33 got timing of ice formation and break up. So early  
34 break up, we've got seals utilizing pressure ridges for  
35 denning, ice breaks, and dens open leaving seal pups  
36 vulnerable to ravens, foxes, polar bears, and other  
37 predators.

38  
39                   Again, remember this interlinked. So  
40 that happening is interlinked with unsafe travel  
41 conditions. That's interlinked with loss of  
42 freshwater. But you've got to go through to see where  
43 these connections are.

44  
45                   Let's take a look at another one that's  
46 specifically to an animal. This one is good to tell  
47 because an elder told me this story about what you have  
48 to know to go hunting for walrus. And it's not just  
49 walrus. You have to know about sea ice thickness and  
50 you have to know about currents and winds. And we know

1 about the animals that are in the stomachs of walrus  
2 because we eat them, right? The benthic species.

3  
4                   So there's relationship between sea ice  
5 thickness and benthics animals and walrus distributions  
6 and currents. But there's also this connection to the  
7 people that are on the land. And to think about a  
8 young boy that's going to go hunting for the first  
9 time. Or has been going out, but is being allowed to  
10 catch for the first time. And they take part of their  
11 catch and bring it back and have to give it to an  
12 elder.

13  
14                   And they do that. They make a  
15 transition from being provided for to being a provider.  
16 And that's a self-identify.

17  
18                   So that means when there's this huge  
19 connection between the health of the walrus and the  
20 health of the culture. Those two can't be separated  
21 out. We have to be able to look at them and understand  
22 how they're interconnected and how they depend on each  
23 other.

24  
25                   So I'm going to wrap this up just a  
26 little bit, but I have lots of time for questions. I  
27 think one of the -- there's a lot of things that came  
28 out of this report. I mean it took three and a half  
29 years and there's many, many people involved in it.  
30 But recommendations were some of those that came out.

31  
32                   But out of all of that what was really  
33 plain to see was that in Alaska the leading driver of  
34 food insecurity is lack of decision-making power in  
35 management. And that goes back to what we heard Harry  
36 saying a little bit earlier today. People know how to  
37 adapt. They have to be given the right to use their  
38 traditional management to adapt. But it also goes  
39 across many other barriers.

40  
41                   And then just so we don't leave things  
42 on too bad, there's also a lot of things that are  
43 maintaining food security. And number one there is  
44 sharing systems. This is another one of the concept  
45 maps to show how fish or caribou or beluga is being  
46 shared across the State to help maintain food security.

47  
48                   I think there's lots of questions about  
49 how we're going to move forward on things. And now  
50 that we have this kind of report, we've been using it

1 to -- people always like to say who's your target  
2 audience. And we just like to say every single human  
3 being that doesn't live in an Inuit community.

4  
5                   Because it's really important for  
6 researchers, government agencies, non-profit  
7 organizations, international organizations like the  
8 Arctic Council to understand this perspective. To  
9 understand what it means to monitor through this  
10 perspective. To understand how all of these things are  
11 connected.

12  
13                   And so one of the other things -- so  
14 we're just -- we're helping people to get this  
15 information.

16  
17                   Another way forward for ICC is starting  
18 to address the need to enhance co-management in Alaska,  
19 because that was seen from the contributing authors as  
20 a real huge spot where a lot of focus needs to be  
21 placed. So ICC is forming a wildlife summit that will  
22 be held in (Indiscernible) this year -- later this  
23 year. And it will host leadership from all four  
24 countries to talk about things such as co-management,  
25 self-governance, and these type of things so that we  
26 can learn from each other and learn what other  
27 countries are doing that are working for them.

28  
29                   So with that, (Indiscernible), Guyana  
30 and Taqu. And it would be good for us just to have  
31 discussions. And like I said, there's quite a few  
32 people in here that are contributing authors so I  
33 encourage you to help lead the discussion if you would  
34 like to.

35  
36                   CHAIRMAN REAKOFF: Thank you.

37  
38                   And so we have some -- any Council  
39 members have any questions on the presentation.

40  
41                   State your name.

42  
43                   MR. DUNAWAY: Well, a comment first. I  
44 just want to thank you for providing us a handout with  
45 some of these great illustrations. You threw a lot of  
46 material at us and it's really nice to be able to go  
47 back and look at it.

48  
49                   Thank you very much.  
50

1 CHAIRMAN REAKOFF: Harry.

2

3 MR. BROWER: Thank you, Mr. Chair.

4

5 And thank you Carolina for your  
6 presentation. I hope it demonstrates a lot of  
7 understanding for folks that are not really familiar  
8 with some of the processes that we had to sustain over  
9 time. I really appreciate the information that's been  
10 generated by a lot of people and to show what  
11 subsistence is and continues to be.

12

13 You know, it's a way of life for us.  
14 Sometimes subsistence is an understatement, in my  
15 opinion.

16

17 I have to say, Mr. Chair, the way of  
18 life for my people up north, you know, to be adaptive  
19 to all the surrounding of the community, weather,  
20 ocean, ocean currents, wind conditions. You have to be  
21 adaptive. And to be resilient. It strengthens the  
22 mind, the body to be able to conduct a hunt for the  
23 resources that we depend on for subsistence.

24

25 And to be able to meet those two, being  
26 adaptive in this area, we need to have less regulations  
27 to continue that. To strengthen the resilience to be  
28 adaptive to other resources that are available. When  
29 one becomes less available, we have to shift to another  
30 resource. And that's been taken away from us by all  
31 the regulations that have been generated.

32

33 Thank you, Mr. Chair.

34

35 CHAIRMAN REAKOFF: Thanks, Harry.

36

37 Go ahead. State your name.

38

39 MR. BROWER: Gordon Brower, from the  
40 North Slope, Barrow, Alaska.

41

42 And I think this is a -- you know, a  
43 great opportunity to provide some concerns from  
44 villages in terms of food security and I think that  
45 some of the things that we discuss in the communities  
46 are food security issues.

47

48 And I'd like to point out this Council  
49 had met in Anaktuvuk Pass in November. And the  
50 concerns that were raised from the community in terms

1 of availability of resources as these -- naming the  
2 caribou and their decline over the past decade. And  
3 it's hard for them to understand I think what  
4 biologists and those that do the counts and the herd  
5 strength.

6  
7                   And there needs to be the type of  
8 issues that you're talking about in terms of co-  
9 management and strengthen. Because some of these  
10 areas, they might not be just on the ocean, but they  
11 cross different jurisdictions in terms of Federal,  
12 State, even private lands -- corporate lands and Park  
13 Service, these types of things.

14  
15                   And it adds to the layer of confusion  
16 when the herd is declining. I don't know exactly how  
17 best to illustrate or, you know, convey it, but that  
18 community was in an emergency mode. It was people in  
19 dire straits to put food on the table. And their  
20 number one resource was caribou. And how we need to be  
21 able to come together and look at a food security issue  
22 like this.

23  
24                   Because I've heard many different  
25 people make comments when it's a State proponent or  
26 something like that and say the resource is all the  
27 people and we should manage it until it declines. That  
28 means either everybody gets some or nobody gets some.  
29 And I think that's very bad. That's a very bad  
30 concept.

31  
32                   We need to -- an example is sheep.  
33 Managed to the point where everybody can't get any  
34 more. The guides can't bring outsiders to harvest it.  
35 The subsistence can't harvest it. So how did it get to  
36 that point. Where was the sustain yield principle.  
37 Because it's a food security issue. We need to manage  
38 them in a way that we're providing food for the rural  
39 people, the indigenous people. We depend on them.

40  
41                   And by the way, it was on FaceBook and  
42 all over. People were sending plane loads of fish.  
43 Other communities were sending their harvest to  
44 Anaktuvuk to help with these types of things. I think  
45 that's a great example of things we need to do. We  
46 don't -- we -- you know, we -- as something starts to  
47 decline, we need to manage it very well. If it needs  
48 to go to a rural preference and that's the way it needs  
49 to be, manage it like that. When there's enough for  
50 the other users to participate, then there needs to be

1 that level.

2

3

4 And also looking at other areas where  
5 hunting pressure could be removed for different users.  
6 Like guides and others should be able to go to a  
7 different herd, like the Central herd, which has been  
8 industrialized. And you go down to the Haul Road and  
9 you'll see caribou walking around with arrows sticking  
10 in them and they're not even dead. I've seen that  
11 myself.

12

13 But when you put guides in the path  
14 when the community needs that resource and effectively  
15 deflect them, you're depleting the resource from that  
16 community when you do that.

17

18 Thank you.

19

20 CHAIRMAN REAKOFF: Thanks, Gordon.

21

22 Two points there. Mainly user  
23 conflicts on the Haul Road. The Central Arctic herd  
24 used to cross the Haul Road on a diagonal towards  
25 Anaktuvuk Pass. They got cut off in 2010 when they  
26 started harvesting cow caribou on the road. It  
27 deflected all those migrating cows away from the road.  
28 Anaktuvuk is starving. That's a user conflict.

29

30 And I sat before the Board of Game and  
31 warned them that that's what was going to happen. You  
32 harvest cows when they're migrating, you will deflect  
33 those herds. That's what happened.

34

35 Do we have any questions on this side  
36 of the room. We've heard from the east side of the  
37 room. Any questions over on this side. Comments.

38

39 Antone.

40

41 MR. SHELIKOFF: Antone on the  
42 Kodiak/Aleutians RAC.

43

44 There was a (indiscernible) that's  
45 probably missing from the book, but the elders of  
46 Greenland, they're to be shared because if it's  
47 important information, it should be shared. And it's  
48 nowhere in the book.

49

50 CHAIRMAN REAKOFF: Carolina.

1 MS. BEHE: Yeah. This project was only  
2 in Alaska, so our other offices now have -- this was  
3 finished in December. So our offices have now reviewed  
4 it and have agreed with it. And they want to start  
5 implementing something similar in their countries to  
6 gather some information.

7  
8 But this project -- I should say this  
9 project is 100 percent dependent on methodologies found  
10 in indigenous knowledge. And so the first thing was  
11 for them to ask is this the type of methodology that  
12 you would use in your country, too. And so far they've  
13 come back and said yes, that that's the methodology  
14 from indigenous knowledge in their country.

15  
16 But it also doesn't give flat out  
17 information that would maybe be proprietary or have  
18 some sensitivity to it. To get that information we  
19 would always direct people back to their communities or  
20 back to those indigenous knowledge holders for the  
21 information.

22  
23 I know you shared with me a little bit  
24 earlier about what elders were saying about change in  
25 the Earth. And that came out in another report. But  
26 this project in particular doesn't reference other  
27 reports, but more just focuses on what those 146  
28 contributing authors wanted to share.

29  
30 CHAIRMAN REAKOFF: Okay. Well, we're  
31 running out of time. So we have another presentation.  
32 We've covered -- well, we'll have this presentation and  
33 then we'll have another comment period -- a question  
34 and comment.

35  
36 Gilbert.

37  
38 MR. CASTELLANOS: Thank you, Mr. Chair.  
39 And thank you everyone in the room. I'm sincerely  
40 honored to be able to be here and spend some time with  
41 you and I really appreciate your time here listening to  
42 me. It is the amount of wisdom and knowledge and  
43 experience and this room is awe inspiring for me. I  
44 really appreciate this. So thank you.

45  
46 I'm here to talk to you a little bit  
47 about the Arctic Council. I hope that this  
48 presentation will be informative.

49  
50 We're going to cover a few things

1 today. I'm going to talk just about what is the Arctic  
2 Council. What is this calf working group. I know  
3 sometimes you can hear it three or four or a hundred  
4 times and it still just doesn't make a lot of sense  
5 sometimes, so hopefully I can help with that. I'm  
6 still learning every day.

7  
8 Why does it matter and what is the  
9 current U.S. government policy on those issues. What  
10 is the Arctic Council and how does it relate to  
11 subsistence issues. And then I'll talk a little bit  
12 about what's coming up and how you might be able to  
13 engage if you're interested.

14  
15 So you saw the slide that Carolina put  
16 up a moment ago. The Arctic Council is essentially the  
17 representatives of Arctic indigenous communities, so  
18 those permanent participants. It is the observer  
19 countries -- countries like China, Japan, Korea -- many  
20 others who have an interest in Arctic issues. And then  
21 the eight Arctic countries. And together those groups  
22 form this thing that's called the Arctic Council.

23  
24 For the United States the  
25 representative is the Secretary of State, currently  
26 John Kerry. And John Kerry joins his counterparts and  
27 the representatives of the Arctic indigenous  
28 communities and these observer countries. They get  
29 together every two years and they just talk about what  
30 are the things that are important in the Arctic.

31  
32 So they work on everything from all the  
33 things that I've heard here today. Cruise ships,  
34 Northwest Passage, walrus. Just about everything you  
35 can imagine. And we just try to come together. And  
36 the Arctic is a very, very big place. And there's a  
37 lot of issues there, so there's no shortage of work for  
38 us.

39  
40 The Arctic Council -- as I said, they  
41 -- this Council -- these leaders -- these senior  
42 leaders for the Arctic -- they get together every two  
43 years and they decide on what they're going to do.  
44 What issues are important to them. And they then  
45 charge the six working groups. One of them is the  
46 Conservation of Arctic Flora and Fauna Working Group or  
47 CAFF working group. That is the working group for  
48 which I am humbled and honored to serve as your  
49 representative, the representative of the United States  
50 as the head of delegation to this working group.

1                   We work -- I sort of -- the definition  
2 that they have online I don't really like, so I've kind  
3 of taken the liberty of changing it a little bit I  
4 think to the way that I view the role of this working  
5 group. And that's really -- it's just a place where  
6 the Arctic Council gets to go together and try to  
7 better understand the Arctic's living resources. Get  
8 some information about it and try to get the  
9 information that we need in order to make better  
10 decisions about it.

11  
12                   So I get together with my colleagues,  
13 including Carolina as the representative of the Inuit  
14 Circumpolar Council every -- twice a year. And we try  
15 to work to come up with projects and to implement  
16 activities that fulfill what the ministers have decided  
17 is important. And we have a work plan that we work on.

18  
19  
20                   So U.S. Arctic policy. I don't have to  
21 tell the people in this room or read to you, but I will  
22 this section, because I think it will reinforce and  
23 maybe emphasize a little bit about what U.S. policy  
24 currently looks like.

25  
26                   A statement derived directly from  
27 Managing for the Future in a Rapidly Changing Arctic,  
28 which was reported to the Department of the Interior,  
29 put together stated -- and I quote, The Arctic is  
30 warming faster than any other region on Earth. That's  
31 not just the Arctic, but Alaska as well. It's bringing  
32 dramatic reductions in sea ice extent, altered weather,  
33 and thawing permafrost. The implications of these  
34 changes include rapid coastal erosion, threatening  
35 villages and facilities, the loss of wildlife habitat,  
36 eco-system instability, increased greenhouse gas  
37 emissions with melting permafrost, and unpredictable  
38 impacts on subsistence activities and critical social  
39 needs.

40  
41                   This is a fact that these experts have  
42 gathered and put together and it governs what current  
43 U.S. policy is in the United States. We take these  
44 things very seriously and we know that we can't do it  
45 all. And that we don't always do it right. But I  
46 think that there are some of us who are trying to do as  
47 good as we can. And we're very, very fortunate to have  
48 folks like yourselves in this room who help inform the  
49 work that we're trying to do.

50

1                   So why do we engage internationally.  
2 Why have the Arctic Council. I mean, you know, if  
3 we're sort of living in our communities, we kind of  
4 know what's going on and that's what matters. And I  
5 think that if you -- again, I don't need to tell the  
6 people in this room probably, but there are some good  
7 pictures here of how whales and some marine mammals  
8 migrate. How birds migrate. How caribou and polar  
9 bear and walrus.

10  
11                   If I were to grab you today and if were  
12 you put you in the middle of the -- I don't know -- of  
13 the Grand Canyon or in the middle of Florida -- or if I  
14 were to grab you and I were to put you in the middle of  
15 parts of Russia or Canada or Norway, you'd feel right  
16 at home in Norway, but in Florida and other places  
17 probably not.

18  
19                   It's a lot of the same animals, a lot  
20 of the same plants, a lot of the same conditions. And  
21 so we have a lot to gain. Maybe even more to gain by  
22 talking to our friends in the Circumpolar Arctic and  
23 hopefully learning from each other and working together  
24 than we do perhaps talking with other people around the  
25 world. And so there's an interest there. We're all  
26 kind of experiencing a lot of the same things and we  
27 may as well try to benefit from each other's wisdoms  
28 and experiences not only within Alaska, but also with  
29 our friends in the other countries that share our  
30 climate and our species.

31  
32                   So people have mentioned -- you might  
33 have seen in the news the United States is currently  
34 serving in the chairmanship of the Arctic Council.  
35 What the heck does that mean. Essentially just like in  
36 this room and just like in the RACs, you know, there's  
37 a chair. And that rotates every two years in the  
38 Arctic Council, so every two years a different country  
39 has this "chairmanship."

40  
41                   In the Arctic Council it's a little bit  
42 unique because it gives you the bully pulpit. It gives  
43 you -- you are the face and you are the voice of the  
44 Arctic for two years. The United States has not had  
45 this opportunity since 16 years ago because there's  
46 eight countries. So we won't have it again for another  
47 16 years. We're taking this responsibility very  
48 seriously.

49  
50                   We have three key priorities. These

1 are priorities that we developed more -- starting more  
2 than three years ago we worked towards developing it.  
3 And in 2015 we began to implement a program. Arctic  
4 Ocean safety, security, and stewardship. The people of  
5 the Arctic and improving their economic and living  
6 conditions. Resilience in addressing the impacts of  
7 climate change. These are the three areas that we  
8 agreed maybe about a little more than two years ago, in  
9 end of 2014.

10

11 I joined Admiral Papp, who was the  
12 United States Special Representative for the Arctic,  
13 Ambassador Balton, our Deputy Assistant Secretary of  
14 State. And we went to Kotz and we went to Nome and we  
15 went to Barrow and we went to -- we came here to  
16 Anchorage. And we took public testimony and heard from  
17 people. And we took quite a bit of time within the  
18 U.S. Government, the Coast Guard, the FBI, EPA, Fish  
19 and Wildlife Service.

20

21 So many agencies and departments and  
22 just saying what are the most important things  
23 happening in the Arctic. And we did our best. And we  
24 thought that these three sort of priority areas --  
25 these organizational thematic areas were the ones that  
26 helped capture the most important things. And so we  
27 have a whole series of projects under that I won't go  
28 into, but I'm happy to talk with you separately about.

29

30 So what about subsistence. The CAFF  
31 working group I talked about -- this one of six of the  
32 working groups that do the work that ministers agree  
33 to. We have worked for more than 20 years together.  
34 Over a long trajectory, we've asked what do we know  
35 about the living resources of the Arctic. What do we  
36 not know and what do we need to know in order to make  
37 good decisions.

38

39 And after more than seven years working  
40 with 200 of the world's -- even between 2 and 400 of  
41 world's leading scientists on all things in the Arctic,  
42 we developed this Arctic bio-diversity assessment. It  
43 looked at everything from bacteria to bowhead whale and  
44 everything in between and said what do we know. What  
45 do we not know. And what do we need to know.

46

47 It came up with 17 recommendations.  
48 The ministers of the Arctic have signed their name and  
49 said these are the recommendations that we are going in  
50 implement and therefore it is my responsibility and the

1 responsibility of the eight Arctic nations -- the  
2 permanent participants of the observer countries to now  
3 implement these recommendations.

4  
5                   One of the recommendations -- ABA  
6 recommendation 14 says we must recognize the value of  
7 traditional ecological knowledge and work to further  
8 integrate it into assessment, planning, and management  
9 of Arctic Council bio-diversity. This includes  
10 involving Arctic peoples and their knowledge in the  
11 survey, monitoring, and analysis of Arctic bio-  
12 diversity.

13  
14                   So I have a nice little line there that  
15 talks about U.S. leadership and we're doing it. And  
16 the truth is we don't do it very well all the time and  
17 we haven't done it very well for a long time, but we're  
18 trying. And we're not going to be able to do it unless  
19 we're able to work together. I think you have a fierce  
20 advocate in people like Carolina, Jimmy Stotz, Jim  
21 Gamble. Several other people who represent your  
22 interests, the interest of Alaskans. And I hope that I  
23 can live up to the expectations that I also try to do  
24 this. We're trying.

25  
26                   We have these commitments. I think  
27 it's good that ministers see them and that they agree  
28 to do them. And now it's our responsibility to  
29 actually make them happen.

30  
31                   So I don't want to go on forever. I'll  
32 spend a few moments here just talking about some  
33 examples of what I'm talking about. What are these  
34 U.S. chairmanship priorities and how are we trying to  
35 actually do it.

36  
37                   So one of the priorities under Arctic  
38 resilience, something that we heard a lot about when we  
39 did our trip through Alaska and since then. Even in  
40 this room and previously. The prevention and  
41 management of Arctic invasive species. There aren't  
42 very many in the Arctic right now, but I guarantee you  
43 it's coming. And invasive species around the world are  
44 probably the second or third biggest threat to the  
45 existence of species in the world. The first and  
46 second are habitat loss and degradation by human  
47 activities.

48  
49                   But invasives is not too far behind and  
50 so it's an important one. How are we going to do this

1 in a responsible way and a way that fulfills  
2 recommendation 14 that says we've got to engage TEK  
3 holders. We've got to engage the people that really  
4 know what the heck is going on out there. And one of  
5 the ways that we're going to try to do that -- and I  
6 forget the name of the young lady that was sitting here  
7 just before us.

8

9 MS. BEHE: Karen Pletnikoff.

10

11 MR. CASTELLANOS: Yeah. Karen was  
12 talking about this local environmental observing  
13 network. This is something that's really cool. That  
14 if you guys haven't heard about, I'd suggest you maybe  
15 look into it a little bit. And I'm happy to answer any  
16 questions you might have.

17

18 But essentially our folks at the Native  
19 Tribal Health Consortium have been working for a long  
20 time to try to say how do we get a group of people who  
21 live in the community and train them a little bit to  
22 tell them how can they get what they're seeing every  
23 day -- the things that scare them. The things that  
24 they're like hey, my grandfather, my great-grandfather,  
25 my father and I have lived here for a long time and now  
26 I'm seeing this. And I've never seen this before. Or  
27 I'm trying to eat this food and I'm not sure if I  
28 should because there's little worms or little things in  
29 there that I'm not quite sure what they are.

30

31 Well, we've created this system where  
32 you can -- and the folks that were here before actually  
33 didn't say this. And I wish they had. Is they spent  
34 some money through the LCCs to develop an app on your  
35 iPhone. And you don't need the app. You can just use  
36 your camera or anything else. Just take a picture.  
37 Take a sample of it. Do whatever you can. Put it up  
38 on this website. Send it to somebody. Mail it  
39 somebody. Hand it to somebody. And experts will look  
40 at it and they'll be able to get back to you and follow  
41 up with you and say hey, this is what it is or this is  
42 what it isn't or you know what. We don't really know.  
43 But we're going to look into it because this is serious  
44 business.

45

46 So we have this for Alaska. It's  
47 growing every day. The United States has made a  
48 significant commitment of resources to expand the local  
49 environmental observing network in Alaska. We have a  
50 commitment from the government of Canada to expand it

1 into Canada. And we're in talking right now to the  
2 government of Finland. Finland will take the  
3 chairmanship of the Arctic Council in 2017 and they  
4 have promised that they will now expand it into  
5 Finland. And our hope is that we will have a  
6 circumpolar environmental observing network so that you  
7 can get online or you can talk to somebody who can tell  
8 you and contribute to writing and developing what's  
9 going on out there. What are people who actually live  
10 there seeing and doing.

11  
12 I hope to make this part of the Arctic  
13 invasive species initiative because I think the only  
14 chance that anyone has to stop an animal from  
15 establishing itself and potentially destroying food  
16 systems, destroying economies, maybe even hurting  
17 people with respect to invasive species is to catch it  
18 early and to get rid of it fast. And the only way to  
19 do that is by working with the people who actually live  
20 there and who have the kind of skin in the game, as  
21 sometimes people say.

22  
23 Another example, monitoring of bio-  
24 diversity in the Arctic Coast. Carolina mentioned that  
25 her and I -- and so were a few other folks that were  
26 here, but I think Roy and some of the other folks maybe  
27 snuck out a little bit early. That's okay.

28  
29 We were out in Ottawa. For the first  
30 time ever we are working in a way where we're starting  
31 I think to make progress and say let's get the  
32 traditional knowledge holders, elders, and scientists  
33 from government and leading experts in one room. And  
34 say if we're looking at the Arctic Coast -- the place  
35 where things are changing the fastest -- the place  
36 where people live and the place where subsistence is  
37 perhaps one of the most important activities for the  
38 people that live along the coast and even inland, we  
39 need to get together the knowledge holders, the elders,  
40 and the scientists from the very beginning. Not after  
41 things have already been done. And say how do we do  
42 this. And how do we do this the right way. How do we  
43 monitor and understand. What are the most important  
44 questions in the coasts of the Arctic that we have to  
45 answer.

46  
47 I'm not saying we're doing it  
48 perfectly. I'm saying we've never done it before. And  
49 that's sorry. That's sad. But we need to start  
50 somewhere. And we're starting to do it. And I'm

1 really, really hopeful that this will be a good example  
2 for how we might conduct ourselves in the future.

3

4 Another example as Carolina said, you  
5 know, in the Arctic food security is life. It connects  
6 the past, the present, and the future. Subsistence is  
7 what we're talking about here. And we have just begun  
8 conversations. It's very early. I don't know where  
9 it's going to go, but we're trying to have this  
10 conversation using the models that Carolina talked  
11 about.

12

13 These linkages between dance and music  
14 and language. And actually how do you cut a beluga up.  
15 How do you dress a caribou in the field. How do you  
16 make sure that the meat stays good. How do you know  
17 the difference between caribou that's in a rut and when  
18 you taste it and when it's not.

19

20 (Laughter)

21

22 MR. CASTELLANOS: And so these are the  
23 things that we're trying to link together and we're  
24 trying to say how do we look at that. But we look at  
25 it from a TEK holder's perspective and a scientist's  
26 perspective. This is all brand new. This is in the  
27 last few days. In the last few weeks. In the last  
28 year or two since the U.S. chairmanship.

29

30 There are just some examples. There's  
31 a lot more. But I guess I'll just tell you that we  
32 take I think -- well, we're trying to take a new  
33 approach here and one where I want to tell you that at  
34 least in this chair -- and I think in some of the rest  
35 of the U.S. chairmanship of the Arctic Council, we're  
36 hearing what you're saying.

37

38 I had the honor also about a year ago  
39 to talk to Harry's group up in Barrow at the RAC  
40 meeting. And tell them about this before it happened.  
41 And we're -- I'm listening. And I want you to know  
42 that I don't just go to these meetings and just sort of  
43 talk and hope and listen and then go away. I'm trying  
44 to listen. I'm trying to do the best I can.

45

46 I'm a carpetbagger. You know, I lived  
47 in Washington, D.C. for 12 years. I find myself --  
48 I've lived -- I've had the honor to live in Alaska for  
49 the last five years. My son was born here in  
50 Athabaskan land. I have, God willing, a daughter

1 coming in May and I'm excited to be here. I love this  
2 place. And I'm trying to do justice by the people that  
3 have real skin in the game here.

4  
5 And so I'm not going to be perfect, but  
6 I'm always going to try. And I think that -- I hope  
7 that these examples give you a sense of where we're  
8 trying to go in the Arctic Council and the CAFF working  
9 group.

10  
11 So what's coming up and how can you  
12 engage. There's a lot of stuff. This is just a couple  
13 of bullets that I pulled out just for your attention.

14  
15 The U.S. Arctic Council chairmanship  
16 continues until 2017. Next week I will be in  
17 Fairbanks. So will Carolina. So will many other  
18 people in this room. Craig Fleener and others. We'll  
19 be meeting for the senior Arctic officials meeting  
20 there.

21  
22 In 2017, in May, whoever our Secretary  
23 of State is at that point will be in Fairbanks. And so  
24 will the ministers of all the eight Arctic nations, the  
25 leaders of several observer countries, and from the  
26 Arctic indigenous communities will be in Fairbanks for  
27 this discussion about, you know, the closing of the  
28 chairmanship of the United States. What have we  
29 decided to do. What are we going to do moving forward.  
30 You have an opportunity to engage there. I encourage  
31 you to do so.

32  
33 Another one that's pretty important --  
34 very important for me personally, professionally,  
35 starting in 2017 in May, the United States and the Fish  
36 and Wildlife Service, representing the United States,  
37 will have the chairmanship of the CAFF working group.  
38 As I mentioned earlier, that means that we -- the  
39 United States -- myself will be the face of Arctic  
40 conservation for two years. We'll be the voice and the  
41 face.

42  
43 And so we're developing a program right  
44 now for what is it that's going to be -- what's going  
45 to be our priority. What are we going to talk about.  
46 And we've started that some time ago and we're looking  
47 forward to engaging with folks to make sure that the  
48 program that we carry out is one that lives up to what  
49 it truly needs to be and can be. And so I invite you  
50 to engage in that process as well.

1 I want to summarize just quickly here  
2 some of the things that I've said. So the Arctic  
3 Council and the CAFF working group. What are they. I  
4 think that they provide a way for us to learn from each  
5 other. Personally, professionally, within the country  
6 and across and around the world really. And it offers  
7 another seat at the table to influence Arctic action,  
8 decisions, things happening there. It's just one more  
9 way for us to listen and hopefully do the right thing,  
10 you know.

11  
12 So I want you to help us make the  
13 United States the global leader that it can and should  
14 be across the Arctic on subsistence, on food security,  
15 and on all the things that matter to Alaskans and to  
16 you personally.

17  
18 The strategy is only going to work if  
19 you guys are a part of it and we're all a part of it  
20 and we're just kind of, you know, trying to be good to  
21 each other and trying to do the right thing. And I  
22 hope that you guys will join me that way.

23  
24 I'll finalize just by saying, you know,  
25 sometimes it's hard. You guys can talk and people can  
26 talk and you think that, you know, nobody's listening.  
27 I hope you know that I genuinely have an interest in  
28 trying to listen. Not everyone always does. People  
29 are very busy. I don't like to hear that, but it's  
30 true.

31  
32 But you have a lot of avenues here.  
33 I'm trying to tell you what some of those are. You  
34 know, reach out to Carolina. Reach out to Jimmy Stotz.  
35 Give Jim Gamble a call. Let them know hey, we have an  
36 interest in the things that are going on. We want you  
37 to pay attention to shipping. We want you to pay  
38 attention to grey water and cruise boats. We want you  
39 to pay more attention to what's going on with beluga or  
40 with the bowhead or with killer whales that are  
41 starting to show up where they've never been. Tell us  
42 what is of interest to you.

43  
44 Write a letter to Secretary of State  
45 John Kerry. A lot of people don't -- you know, I was  
46 the person in school who I went in after school to go  
47 talk to the teacher. It's amazing. Sometimes they'll  
48 tell you the answer to the test.

49  
50 (Laughter)

1 MR. CASTELLANOS: But there's not a lot  
2 of students that go and do that.

3  
4 (Laughter)

5  
6 MR. CASTELLANOS: They don't go. They  
7 just don't think they -- they either want to go kick  
8 the ball around or they don't -- you know. But if you  
9 did it, you're one of the few people that does it. And  
10 you might just get some attention paid to you. And if  
11 you write a letter to Secretary of State John Kerry,  
12 Secretary of State John Kerry's probably not going to  
13 read it. But I guarantee you this. It's going to go  
14 to somebody under his staff who's going to be like  
15 what's this thing the Arctic Council. What the heck  
16 are they talking about belugas. But somebody's going  
17 to look at it and somebody's going to pay attention to  
18 it.

19  
20 Write a letter to Craig Fleener. He'll  
21 appreciate me for that.

22  
23 (Laughter)

24  
25 MR. CASTELLANOS: And tell him hey,  
26 this is what I think Alaskans care about. Here's what  
27 I care about. And I'm an Alaskan. I'm an American. I  
28 want you to pay attention. He's sitting there right  
29 next to me.

30  
31 So you have a lot of different avenues  
32 for how to get engaged and how to contribute. And I  
33 hope that you'll take that up.

34  
35 Thank you very much, Chair.

36  
37 Thank you everyone in the room.

38  
39 I appreciate it sincerely.

40  
41 CHAIRMAN REAKOFF: Thank you, Gilbert.

42  
43 (Applause)

44  
45 CHAIRMAN REAKOFF: I appreciate your  
46 invitation. The Regional Councils are under written  
47 policy constraints, but my able coordinator here feels  
48 that the Councils can make recommendations through the  
49 Federal Subsistence Board and we can address issues to  
50 the Arctic Council.

1                   And so I encourage all of the Regional  
2 Councils to do that. If you have issues -- want to  
3 talk to the Arctic Council about it, put it in written  
4 form through the Board and the Annual Report or some  
5 process like that and our comments can get through to  
6 you.

7  
8                   But we can't actually lobby or we can't  
9 write letters specifically to specific -- under the  
10 Hatch Act. And so these Councils have some kinds of  
11 constraints.

12  
13                   Any comments. I've got one hand up  
14 back here.

15  
16                   Mary.

17  
18                   MS. MILLS: Mary Ann Mills from the  
19 Kenai Peninsula.

20  
21                   And one of the conservation concerns I  
22 have with regard to the big ships coming in and they  
23 will be coming in especially up north, is the bilge  
24 water and the lack of treatment plan before they dump  
25 the waters.

26  
27                   And I know this has had an effect in  
28 Southeast. It has also been addressed in Cook Inlet,  
29 Kenai, Resurrection Bay, and a lot of the different  
30 ports. And this is to me very important because of the  
31 contamination across the country because of the bilge  
32 water that brought a lot of the invasive species, for  
33 instance the -- I think it's the blue crab in the  
34 Washington States now. But that came actually from the  
35 West Coast.

36  
37                   And so I think if there is going to be  
38 a lot of ships coming in, this is something that's  
39 going to be vital, especially for the people in the  
40 pristine upper areas. The Chuckchi Sea and so forth.

41  
42                   Thank you.

43  
44                   CHAIRMAN REAKOFF: Thank you.

45  
46                   Della, do you have a comment?

47  
48                   MS. TRUMBLE: Della Trumble with the  
49 Kodiak/Aleutian. And I am from King Cove.

50

1                   But just to kind of follow up on a  
2 comment you made in regard I think to Karen and the  
3 program that they were using where the Bering watch,  
4 where we were up -- what we were doing -- this is a  
5 program that was being done with the Pribilofs and the  
6 Aleut Marine Mammal Commission, of which actually both  
7 Antone and I worked with.

8  
9                   And then I followed through with when I  
10 was working as the administrator with the Tribe in King  
11 Cove under a Tribal Wildlife Grant. And what this is  
12 -- it was really interesting because we'd been working  
13 on this project probably like ten years. And you  
14 mentioned an app. What we were doing was following  
15 specific species -- marine mammals -- on what you're  
16 observing from different communities through the --  
17 from the Shumigans out to the Pribilofs. And you'd  
18 show what -- you know, what you were observing. Where  
19 they were at. And we got to a point where we were  
20 looking this can be a really good tool to create --  
21 it's to put on -- you can put it on your iPhones.

22  
23                   If fishermen are on the boats and  
24 they're going well, we're seeing these walruses on  
25 Unimak Island or Amak and they haven't been there, so  
26 that -- and they're given numbers. They can take  
27 pictures and they can shoot it up to the site.

28  
29                   And the guys up farther north where  
30 they were seeing a lot more sea otters and the killer  
31 whales. But the thing of it is when you have a tool  
32 like this -- and I looked at the count on the migratory  
33 birds on the emperors, when you have a survey areas  
34 that they just say well, we count here, here and here.  
35 But we're hearing from our locals we seem them  
36 everywhere.

37  
38                   So how do you get those numbers. And  
39 that's a tool I think that can be utilized at some  
40 point in time. That I think needs to be looked at more  
41 from the various agencies to help I think to see what,  
42 you know, actually is going on.

43  
44                   But just a comment.

45  
46                   And I did really appreciate your  
47 report.

48  
49                   CHAIRMAN REAKOFF: Thanks, Della.  
50

1 Greg.

2

3 MR. ROCZICKA: Yeah. Quyana, Mr.

4 Chairman.

5

6 For the record, Greg Roczicka. I work  
7 with the Tribal Council in Bethel and vice-chair on the  
8 RAC -- the YK-Delta RAC.

9

10 Gilbert, I was going to ask you a  
11 specific -- as you're putting this together for the  
12 next year when you have the chairmanship and issues you  
13 might work on, it's fairly important. And I was going  
14 to ask you if Russia was actually involved in this.  
15 And I found on page 110 that indeed they are with the  
16 Russian Federation Ministry of Natural Resources in  
17 Moscow. And actually I count nine countries there, not  
18 eight. But also that you have the Russian indigenous  
19 people to the north.

20

21 And, you know, we spent quite a while  
22 earlier in this session -- maybe you were here -- on  
23 this whole issue of bycatch that occurs in the  
24 commercial fleets under the U.S. And one of the  
25 biggest data holes we've got when it comes to chinook  
26 is what happens in that donut hole and the commercial  
27 fisheries that occur from the Russian fleets. And if  
28 perhaps you could use this Council as some form of  
29 leverage or a side door or a back door or right in the  
30 front door. Whatever door you can find.

31

32 (Laughter)

33

34 MR. ROCZICKA: To maybe get some of  
35 that information. Because right now as I understand  
36 it, it is a black hole of knowledge for what happens  
37 with the Russian bycatch for chinook salmon  
38 specifically and salmon in general.

39

40 CHAIRMAN REAKOFF: Go ahead.

41

42 MR. CASTELLANOS: I just wanted to say  
43 something briefly in terms of front door or back door  
44 because they're -- I should have been clear also that  
45 they don't speak about anything in the Arctic Council.  
46 It's funny. Because fisheries is definitely one of  
47 them, as is national security or sort of we -- we talk  
48 about search and rescue. We talk about cooperation.  
49 But when it comes to defense issues, those are also not  
50 part of the Arctic Council dialogue.

1 I won't go into all of the details  
2 about it, but essentially when you talk about fisheries  
3 there really are only five Arctic states that have  
4 coasts that actually touch the Arctic. And so those  
5 are the countries that gather to talk.

6  
7 And the United States and Ambassador  
8 Balton and some of the people I talked about are  
9 currently looking specifically at the donut hole. And  
10 as you may or may not know, the United States  
11 implemented a moratorium on all fishing practices in  
12 the donut hole until we have enough information or  
13 establish a fisheries commission or something along  
14 these lines.

15  
16 Again, it's -- I don't want to speak  
17 out of line because it's not my area of expertise. But  
18 I did want to mention that the one thing the Arctic  
19 Council doesn't touch is fisheries. But the United  
20 States is taking a leadership role in a separate forum  
21 to address those issues. Yeah.

22  
23 Thank you.

24  
25 CHAIRMAN REAKOFF: Thanks, Gilbert.

26  
27 And state your name and speak to the  
28 mic. Go ahead.

29  
30 MR. SENSMEIER: My name is Raymond  
31 Sensmeier, from Yakutat, Alaska and I'm Southeast.

32  
33 And a lady over here a little while ago  
34 mentioned the cruise ships. And I've heard people talk  
35 about grey water. Grey water is the water from sinks,  
36 toilets, showers. And I haven't heard anybody talk  
37 about the black water. That's the sewage. They dump  
38 that. Over 1 billion gallons around the world a year.

39  
40 We have 171 cruise ships that come by  
41 our village to go up to the glacier and to watch it  
42 calve. And to look at the seals. And they dump -- the  
43 ships are getting bigger. They used to hold 3,000  
44 people. Now they hold 5,000 people. Next summer  
45 they're planning on taking one across the North Pole,  
46 840 feet long. And I have no idea how many people they  
47 hold. But they all use -- you know, they use the  
48 toilets and the bathrooms and then it goes into the  
49 water.

50

1                   And they're using antiquated water  
2 treatment systems that are over 35 years old. And  
3 they're the richest industry in the world. And now  
4 they go into Hoonah regularly because they have -- with  
5 the Native Corporation there. And, you know, maybe you  
6 get \$2,000 or \$3,000 a year in dividends, but where  
7 they anchor was used -- used to be where they halibut  
8 fished. There are no halibut.

9  
10                   And the villages around there and  
11 Hoonah, the women go out at a certain time of the year  
12 to gather red seaweed. They go out now and it's white.  
13 It's dead. There's dead starfish floating around.  
14 They have donut holes for the 2,000 initiative  
15 (indiscernible) initiative to institute the  
16 restrictions on them was thrown out by the Parnell  
17 Administration.

18  
19                   So you've got four ships tied up in  
20 downtown Juneau and they're dumping sewage into the  
21 water there. A friend of mine worked testing cruise  
22 ships and with the sewage, it's like a big garbage  
23 disposal. He said there was about eight of them. And  
24 they dump 55-gallon barrels of chlorine into those to  
25 kill the bacteria. Well, chlorine's pretty toxic  
26 itself. Not to mention the silver nitrate that they  
27 dump overboard from the photo labs. And 25,000 gallons  
28 of oily bilge water per week.

29  
30                   CHAIRMAN REAKOFF: Okay.

31  
32                   MR. SENSMEIER: But, you know.....

33  
34                   CHAIRMAN REAKOFF: So.....

35  
36                   MR. SENSMEIER: I could go on for a  
37 long time.

38  
39                   CHAIRMAN REAKOFF: Yeah.

40  
41                   MR. SENSMEIER: I'm just -- the other  
42 thing I only heard mentioned once is the transboundary  
43 mining issue. I'm on the -- one of fourteen villages,  
44 the Yakutat and many others throughout Southeast that  
45 are really concerned about these humongous mines that  
46 the Canadians are putting in.

47  
48                   The one at the head of the Stikine  
49 River -- a major river -- that's called the KSM mine.  
50 They call it the Golden Triangle. But it makes the

1 Pebble look like a nickel compared to a silver dollar.  
2 And they put these in valleys. And they make earthen  
3 dams down below and an earthen dam above. And they  
4 cover it with plastic. And they -- and hard rock  
5 mining, sometimes that's 95 percent acidity. And they  
6 cover it with four feet of water in perpetuity.

7  
8 And I asked -- we met with the mining  
9 minister. I went over to BC with the lieutenant  
10 governor and I said do you know how long that is?  
11 That's forever. That's to the end of the world. How  
12 can you guarantee that it's going to be monitored and  
13 four feet of water kept over it in perpetuity? Because  
14 if it becomes exposed to the air, it turns into  
15 sulfuric acid and washes down into the Gulf of Alaska.

16  
17 Less than three years ago, Mount Polley  
18 mine breeched. And it ran into the Fraizer River. And  
19 into Williams (indiscernible) community -- their  
20 drinking water. For the first time in history, no  
21 Indians harvested fish. That's unreal. One of the  
22 biggest rivers there.

23  
24 And now they're making mines at the  
25 head of all of them. One is only 40 miles from  
26 Yakutat. And they're hard people to deal with because  
27 they.....

28  
29 CHAIRMAN REAKOFF: I'm going to have to  
30 cut you off there.

31  
32 Everybody's on the same sheet of music  
33 with that mining thing, but.....

34  
35 MR. SENSMEIER: But I haven't heard  
36 anybody talking about it.

37  
38 CHAIRMAN REAKOFF: We're talking about  
39 the Arctic. And so -- but big mines can be going down  
40 the Mackenzie, down into the Arctic Ocean. And so I do  
41 feel that this mining issue is a big deal. Canada's  
42 been very lax on some of the regulation. And I'm with  
43 you on that. But we're running short on time for  
44 today.

45  
46 And I'll take one more question on this  
47 side of the room over here.

48  
49 MR. KATCHEAK: My name is Ted Katcheak  
50 from Stebbins, a Seward Peninsula RAC member.

1                   One of the things I feel that might be  
2 real is we have heavy equipment transported to  
3 different parts of Alaska. And some of them come from  
4 I'm sure the Lower 48. And in those tracks there left  
5 a dirt or plants in the track. And that's how I think  
6 those invasive plants are being transported -- by heavy  
7 equipment.

8  
9                   I have a grove of plants four feet tall  
10 with petal flowers and it's probably about  
11 (indiscernible) in diameter. That's an invasive plant  
12 I have. It's just 200, 300 feet west -- east side of  
13 my house in Stebbins. So that might be the reason  
14 where the invasive plants are being transported to  
15 different parts of Alaska.

16  
17                   Thank you.

18  
19                   CHAIRMAN REAKOFF: Thank you. I live  
20 on the Dalton Highway and heavy machinery brings  
21 invasive plants. And the way they plow the road, they  
22 push the invasives to the north. And so as roads are  
23 spreading in -- they're building a road right down  
24 there to -- past Inuvik out to the coast. And so these  
25 invasive plants are being spread to Alaska also by  
26 heavy machinery.

27  
28                   And so that's something that really  
29 should be looked at by the Arctic Council is how these  
30 invasives are brought by industrialization and roads to  
31 the Arctic Ocean coast.

32  
33                   So that was the final comment for  
34 today.

35  
36                   I did get a little note here that there  
37 was a request to recognize Roy Ewan for an -- an elder  
38 that was on the -- from Gulkana. Was a past  
39 Southcentral RAC member for many years and has been  
40 here at this meeting today. And we always appreciate  
41 all of the work that past RAC members have done.

42  
43                   I do want to thank Carolina and Gilbert  
44 here for their presentations and the discussion for the  
45 Councils.

46  
47                   And so Carl.

48  
49                   MR. JOHNSON: Just a couple of quick  
50 notes. First, if anybody here would like to continue

1 more discussions with Gilbert regarding the Flora and  
2 Fauna Working Group, he's giving a presentation at 3:45  
3 on Friday. You could just check the daily schedules to  
4 see what room that's going to be held in.

5  
6                   And for the Council members, you are  
7 welcome to leave your meeting books on the table this  
8 evening because we'll be back here again tomorrow  
9 morning. So you don't have to drag those with you  
10 tonight.

11  
12                   CHAIRMAN REAKOFF: So the meeting  
13 starts at 8:30 prompt tomorrow morning. We've got lots  
14 to do tomorrow also. Have a great evening.

15  
16                   (Off record)

17  
18                   (PROCEEDINGS TO BE CONTINUED)

