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WESTERN INTERIOR FEDERAL SUBSISTENCE  
REGIONAL ADVISORY COUNCIL MEETING

PUBLIC MEETING

VOLUME II

Telephonic  
February 18, 2021  
10:30 a.m.

COUNCIL MEMBERS PRESENT:

Jenny Pelkola, Acting Chair  
Don Honea  
Goodwin Semaken  
Pollock Simon

Regional Council Coordinator, Karen Deatherage

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

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3 (Telephonic - 2/18/2021)

4

5 (On record)

6

7 MS. DEATHERAGE: Okay, Jenny, it looks  
8 like we've got everybody on board to call the meeting  
9 to order and then with your permission I'd like to make  
10 a couple of announcements.

11

12 Thank you.

13

14 ACTING CHAIR PELKOLA: Okay. I'd like  
15 to recall this meeting back to order at 10:33. Go  
16 ahead, Karen.

17

18 MS. DEATHERAGE: Okay, great. Welcome  
19 everybody. This is Karen Deatherage with the Office of  
20 Subsistence Management. And I appreciate folks calling  
21 in today for the remainder of this meeting. Just a  
22 reminder with respect to phone calls, if you could  
23 please mute your phone when you're not speaking, that  
24 would be super. Also, please don't put us on hold  
25 because we get this nice little beep or sometimes some  
26 pretty terrible music that we have to listen to while  
27 reports are being given. And also at the request of  
28 the Chair, we'd like you to repeat your name twice, if  
29 you would, when you are speaking so that everybody  
30 knows who's talking.

31

32 We have four items on the agenda today.  
33 We can start with, if Darrell Vent is on the phone, we  
34 can give him the honor of reporting on the Huslia  
35 Tribe, or on behalf of the Huslia Tribe, and then the  
36 Bureau of Land Management will give an update on the  
37 Bering Sea Western Interior Resource Management Plan,  
38 and that'll be followed, hopefully, at 11:00 by the  
39 National Oceanic and Atmospheric Administration's  
40 report on juvenile salmon and salmon bycatch, and the  
41 Eastern Bering Sea ecosystem.

42

43 So that's what's on the agenda today  
44 and if there's any questions feel free to ask and I'll  
45 turn it over to your Chair, Jenny Pelkola now.

46

47 Thank you, very much, everybody.

48

49 So if Jenny can ask for introductions

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1 to see who's on the phone. Oh, I apologize, we're also  
2 open for any public comments this morning on any issues  
3 if anybody from the public would like to speak.

4

5 Thank you.

6

7 ACTING CHAIR PELKOLA: Okay. Could you  
8 give your name, whoever's on the phone.

9

10 MR. VENT: Good morning, this is  
11 Darrell Vent.

12

13 MR. REAKOFF: Jack Reakoff.

14

15 MS. YASUMIISHI: Ellen Yasumiishi.

16

17 MS. DEATHERAGE: Who was that again,  
18 I'm sorry.

19

20 MS. YASUMIISHI: Good morning. Ellen  
21 Yasumiishi with NOAA Fisheries.

22

23 MS. DEATHERAGE: Fantastic, thank you,  
24 Ellen.

25

26 MR. STOUT: Glenn Stout with Fish and  
27 Game.

28

29 MR. GRAHAM: This is Cory Graham with  
30 OSM.

31

32 MS. KENNER: Pippa Kenner, OSM.

33

34 MS. DEATHERAGE: Maybe I'll ask for  
35 folks again from OSM, anybody from OSM, we've got Cory  
36 and myself.

37

38 MR. KRON: Hey, Karen, yeah, this is  
39 Tom Kron. Good morning everybody.

40

41 MS. KENNER: And Pippa Kenner.

42

43 MS. DEATHERAGE: Good morning, Pippa.  
44 Let me go through some agencies, that might help make  
45 this a little easier. How about Fish and Game. We  
46 heard Glenn Stout was on the phone, anybody else from  
47 Fish and Game.

48

49 MS. LONGSTON: Sarah Longston.

50

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1 MS. GARCIA: Sabrina Garcia.

2

3 MS. DEATHERAGE: And who else?

4

5 MS. GARCIA: And Sabrina Garcia from  
6 Division of Commercial Fisheries.

7

8 MS. DEATHERAGE: Welcome Sabrina.  
9 Looking forward to your report today. Anybody else  
10 from Fish and Game.

11

12 MS. JALLEN: Good morning. This is  
13 Deena Jallen with Alaska Department of Fish and Game up  
14 here in Fairbanks.

15

16 MS. DEATHERAGE: Hey there. Hope to  
17 get out in that snow today. Anybody else from Fish and  
18 Game on the phone with us this morning.

19

20 MS. MCDAVID: Good morning. This is  
21 Brooke McDavid from Division of Subsistence.

22

23 MS. DEATHERAGE: Hi Brooke. How about  
24 Fish and Wildlife Service, do we have people from Fish  
25 and Wildlife Service on the phone this morning.

26

27 MS. FOX: Joanna Fox.

28

29 MR. MASCHMANN: This is Gerald  
30 Maschmann I'm up in Fairbanks.

31

32 MR. REBARCHIK: Bob Rebarchik, the  
33 Koyukuk/Nowitna/Innoko out of Galena.

34

35 MS. DEATHERAGE: Morning Bob. And I  
36 think I heard Joanna Fox.

37

38 MS. FOX: Yes, with Kanuti Refuge.

39

40 MS. DEATHERAGE: Anybody else with the  
41 Fish and Wildlife Service.

42

43 MS. MORAN: This is Tina Moran with  
44 Kanuti Refuge in Fairbanks.

45

46 MS. DEATHERAGE: Hi.

47

48 MR. HAVENER: Jeremy Havener.....

49

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1 MR. HARWOOD: Chris Harwood.

2

3 MS. DEATHERAGE: Sounded like Chris  
4 Harwood?

5

6 MR. HARWOOD: Yes.

7

8 MS. DEATHERAGE: Super. Anybody else  
9 from Fish and Wildlife, Vince, you on?

10

11 MR. HAVENER: Jeremy Havener, Koyukuk/  
12 Nowitna/Innoko.

13

14 MS. DEATHERAGE: Morning, Jeremy.

15

16 MR. HAVENER: Good morning.

17

18 MR. BLIHOVDE: Boyd Blihovde, at Yukon  
19 Delta National Wildlife Refuge.

20

21 MS. DEATHERAGE: Welcome Boyd.

22

23 MR. BLIHOVDE: Thank you.

24

25 MR. MATHEWS: Good morning. This is  
26 Vince Mathews with Kanuti, Arctic and Yukon Flats in  
27 Fairbanks. Thanks.

28

29 MS. DEATHERAGE: Morning.

30

31 MR. BROWN: This is Randy Brown with  
32 Fisheries in Fairbanks.

33

34 MS. DEATHERAGE: Good morning, Randy,  
35 welcome. Anybody else from Fish and Wildlife on the  
36 phone.

37

38 (No comments)

39

40 MS. DEATHERAGE: How about the Bureau  
41 of Land Management, do we have anybody from the BLM on  
42 the phone.

43

44 MS. MILLION: Good morning. This is  
45 Bonnie Million.

46

47 MS. DEATHERAGE: We've got Bonnie  
48 Million.

49

50

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1 MS. MILLION: Yes, good morning, Karen.

2

3 MS. DEATHERAGE: Good morning.

4

5 MR. HEINLEIN: Good morning, Karen.

6 This is Tom Heinlein from the Anchorage District, BLM.

7

8 MS. DEATHERAGE: Oh, what's your name,

9 Tom?

10

11 MR. HEINLEIN: Yes, it's Tom Heinlein.

12

13 MS. DEATHERAGE: All right, welcome.

14 Welcome to the BLM as well.

15

16 MS. JULIANIES: And this is Erin

17 Julianies, Fairbanks BLM.

18

19 MS. DEATHERAGE: Hey there neighbor.

20 Anybody else from the BLM on the phone this morning.

21

22 MR. SEPPI: Bruce Seppi, Anchorage

23 Field Office.

24

25 MS. DEATHERAGE: Hi, Bruce. All right,

26 how about the National Park Service.

27

28 MS. FLOREY: Good morning. This is

29 Victoria Florey at the Regional Office, National Park

30 Service.

31

32 MS. DEATHERAGE: Okay.

33

34 MR. CAMERON: Good morning. This is

35 Matt Cameron with the National Park Service in

36 Fairbanks.

37

38 MS. DEATHERAGE: Good morning, Matt and

39 Victoria. How about the Bureau of Indian Affairs.

40

41 MR. CHEN: Yeah, this is Glenn Chen from

42 BIA.

43

44 MS. DEATHERAGE: Welcome, Glenn. And

45 then from NOAA, anybody from NOAA on the phone.

46

47 MS. YASUMIISHI: Yeah, Ellen Martin --

48 or sorry, Ellen Yasumiishi from Juneau, Alaska, part of

49 your marine team.

50

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1 MS. DEATHERAGE: Yeah, marine team,  
2 thanks so much Ellen. Do we have anybody this morning  
3 from YRDFA?

4  
5 MS. FITKA: This is Serena Fitka with  
6 YRDFA.

7  
8 MS. MONCRIEFF: And, hi, this is  
9 Catherine Moncrieff with YRDFA.

10  
11 MS. DEATHERAGE: Got the YRDFA team.  
12 How about from the Kuskokwim River InterTribal Fish  
13 Commission.

14  
15 MR. WHITWORTH: Good morning, this is  
16 Kevin Whitworth.

17  
18 MS. DEATHERAGE: Good morning, Kevin.

19  
20 MS. SCHOMOgyi: And, hi, this is Terese  
21 Schomogyi.

22  
23 MS. DEATHERAGE: Hi there, Terese.  
24 Let's see I'm doing the best I can to cover everybody,  
25 how about Darrell Vent, is Darrell Vent with us this  
26 morning from the Huslia Tribe.

27  
28 MR. VENT: Good morning. This is  
29 Darrell Vent from the Huslia Tribe.

30  
31 MS. DEATHERAGE: Super. Anybody from  
32 the Tanana Chiefs Conference.

33  
34 MR. STEVENS: Yep, Ben Stevens here.

35  
36 MS. DEATHERAGE: Hi Ben.

37  
38 MR. IRVINE: Bruce Irvine here.

39  
40 MS. DEATHERAGE: I'm sorry, what was  
41 your name?

42  
43 MR. IRVINE: Bruce Irvine.

44  
45 MS. DEATHERAGE: Okay, Bruce, good  
46 morning.

47  
48 MR. IRVINE: Good morning.

49  
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1 MS. DEATHERAGE: Looking through I  
2 think I've got most of the agencies and our Alaska  
3 Native Organizations and nonprofits. Are there any  
4 public members or anybody else who hasn't had the  
5 opportunity to introduce themselves.

6  
7 MR. GERVAIS: Tim Gervais.

8  
9 MS. DEATHERAGE: Welcome, Tim.  
10 Alrighty, it sounds like we've got everybody introduced  
11 so I'll turn the meeting back over to the Chair to open  
12 it up for any public comments this morning.

13  
14 Thank you, very much everybody.

15  
16 ACTING CHAIR PELKOLA: Okay, welcome  
17 everyone. It's a nice sunny day in Galena and we  
18 should have the Iron Dog coming through today so we're  
19 pretty excited to have them back on their way to  
20 Fairbanks.

21  
22 Okay, at this time, do we have any  
23 public comments on nonagenda items.

24  
25 (No comments)

26  
27 ACTING CHAIR PELKOLA: Okay, if not, I  
28 think we're going to go to Darrell Vent representing  
29 the Huslia Tribe. Go ahead, Darrell.

30  
31 MR. VENT: Good morning, Madame Chair,  
32 Board members and Staff. I am here to testify on  
33 behalf of the Huslia Tribe.

34  
35 The information that I'm hearing about  
36 this Public Law Order 5150 is very concerning. I am  
37 worried about what kind of affects it will have with  
38 our subsistence, rural preference for subsistence in  
39 the Koyukuk River area. As you know we are in some  
40 Federal lands and we have subsistence uses on these  
41 lands. We have for decades, thousands of years, used  
42 this land as our area to support our people with the  
43 food that it provides.

44  
45 Early 1970s we had a good migration  
46 pattern with the caribou, Central Herd, we used to  
47 catch a lot of caribou in the falltime with a lot of  
48 fat on it. After we went into a bunch of process with  
49 the State on meetings discussing the proposed pipeline.  
50



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1 Later on, after the meetings were over, the caribou did  
2 not come back with the Central Herd, whether they went  
3 with the Western or Eastern, we have not -- we have no  
4 information on that. Now, we are here in the village  
5 of Huslia this last summer, we have low counts of fish,  
6 whether it's chinook, chum, and other species that are  
7 getting depleting [sic], they're getting less and  
8 less and we're hearing that we are getting this Public  
9 Law 5150, trying to be lifted or repealed by the State  
10 to further enhance the, you know, the loss of our  
11 animals, whether it's the caribou which we depend on  
12 for the Western Herd, or whether it's the fish that  
13 spawn up in the upper tributaries of the Koyukuk River  
14 or whether it's the other species of fish that we  
15 depend on that come along the river. If this road goes  
16 through we will lose a lot of subsistence hunting  
17 because there would be more hunters coming up the  
18 Dalton Highway, up the corridor, through the Ambler  
19 Road and come down to the Koyukuk River and further  
20 hunt our chances for subsistence use. As you know,  
21 that up in the Bettles area, they are in a Tier II  
22 situation, because the hunting of the area and the  
23 management has decreased the hunts of the moose. And  
24 the people in the Allakaket/Alatna area have a hard  
25 time catching moose in the area now, where back in the  
26 days there was more moose up that way but now there is  
27 less. And we are seeing similar population decreases  
28 down here in the Huslia area as it's noted, you know,  
29 from all the Fish and Game, all the biologists that  
30 have been recording all our moose, there is a decrease.

31  
32 I'm saying this because we need to  
33 address this Public Law Order 5150, make sure that it  
34 provides for subsistence, for rural preference  
35 subsistence. We need to make sure that we have food to  
36 eat for our kids, not a road that can go through and,  
37 you know, destroy our habitats up in the Upper Koyukuk  
38 River, which will further decrease our subsistence use.  
39 Hopefully this would be considered.

40  
41 This is something I wanted to go on  
42 record that I have spoken about these areas that we are  
43 currently trying to protect.

44  
45 This Dalton Highway corridor really  
46 devastated our caribou and now that if they put the  
47 Ambler Road in, the Western Arctic Caribou Herd may no  
48 longer come down into our area so that would take away  
49 our caribou subsistence use.

50

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1 I was born into the caribou clan from  
2 the Treat Island area, this use of a caribou was  
3 important to us. It was for our food, for our  
4 clothing, now we can hardly even get maybe three, four  
5 caribou because we have to travel quite a ways from the  
6 Huslia area to hunt caribou now, whereas it used to  
7 come right to our backyard and they were fat. Now the  
8 fish is getting less and less. We're starting to hear  
9 that they're going to cut back more of our fishing  
10 because up in the Koyukuk River tributaries they've  
11 been documenting that the fish is getting less and less  
12 up there with the TCC program, and they're worried.  
13 What are we going to live on? What is the State  
14 Management Program going to provide for us? How are  
15 they going to deal with this problem when they're going  
16 to create more problems if they open the Ambler Road,  
17 with this Public Law Order 5150.

18  
19 I want other villages to know that this  
20 is a real ordeal that's going to come in and hurt our  
21 area, whereas the Allakaket area, Hughes, Huslia, and  
22 further on down the rivers, where we already are  
23 getting impacting with hunting. We need to take this  
24 into consideration and maybe be able to sit in because  
25 right as it is now, the process for having meetings is  
26 rushed. We don't have the capability for the  
27 electronic meetings or the internet to compete or speak  
28 up for our people because of this limited ability.  
29 Some villages only have phones and it cost a lot of  
30 money just to call in to speak to people. So we need  
31 to be at the level playing table if we need to, you  
32 know, raise our concerns, we have to make sure that we  
33 are in these processes for having the meetings. So I  
34 am very concerned that we need to address these issues,  
35 whether it's unlawful, or illegal to have these  
36 meetings without our input.

37  
38 Thank you from the Huslia Tribe.

39  
40 ACTING CHAIR PELKOLA: Thank you, very  
41 much, Darrell. That was very, very good. You hit on a  
42 lot of topics, a lot of things there that I know we're  
43 all concerned about in our area and your area. So I  
44 just really thank you and do we have any comments or  
45 questions for Darrell at this time?

46  
47 (No comments)

48  
49 ACTING CHAIR PELKOLA: Do you have  
50

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1 anything Pollock.

2

3

4 MR. SIMON: Okay, this is Pollock. In  
5 1974 they started pushing north with the oil pipeline  
6 really with (indiscernible) away from our village and  
7 as we know putting in the gravel in the Haul Road and  
8 to that 1974, we had the caribou close by all the time  
9 and then the road was put in, the pipeline went in and  
10 they told us at first we had meetings with them and  
11 they said the Haul Road will be for industrial use only  
12 but they didn't, soon after it was completed, it was  
13 turned over to the State and, of course, the State  
14 opened to the public and flux of peoples come up the  
15 Haul Road not only to look at the mountains but to hunt  
16 and fish and (indiscernible) I know the road that's  
17 close to our area and after that there was the  
18 sporthunters from the road killing the caribous,  
19 hunting caribous and then that continues and then the  
20 traffic going up and down the road pretty soon the  
21 caribou kind of steer more to the west. In 1974 was  
22 the last time that caribous was close by. It was no  
23 caribou for 10 years after. Then occasionally we get  
24 caribou about four or five times since then. One time  
25 the caribou come over from Kobuk area and go up to our  
26 area there and we had caribou, but the -- the caribou  
27 are kind of sensitive, you can't impacts their travel,  
28 that's what's -- kind of like go around our area and  
29 pretty soon they don't come back to our area anymore.  
30 And the caribou used to -- first Koyukuk River south,  
31 down to Ray Mountains where there is no (indiscernible)  
32 timbered area and they come out and a lot of fat on  
33 them but the progress has destroyed some of these areas  
34 and then caribou never come back anymore but like right  
35 now there's no caribou. Kind of tough times in upper  
36 Koyukuk River, there's a little bit number of moose,  
37 not much -- no caribou, and no chum salmon, no king  
38 salmon, there's tough times we have around here in the  
39 upper Koyukuk River. I'm glad that my nephew is there,  
40 good neighbors -- good comments on this.

41

42 Thank you, Madame Chair.

43

44 ACTING CHAIR PELKOLA: Thank you,  
45 Pollock. That was very good. How about you Don.

46

47 MR. HONEA: Well, hey, Darrell, that  
48 was a pretty good presentation and you mentioned, is  
49 this Public Law 1050 [sic], I mean I didn't catch that.  
50 I -- is the one where Doyon is going to be doing some

51

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1 kind of a web kind of a thing here, maybe next week or  
2 something?

3

4 MR. VENT: Hey, Don, this is -- or  
5 Madame Chair, this is Darrell.

6

7 ACTING CHAIR PELKOLA: Yes, to ahead.

8

9 MR. VENT: Okay, Don, the one you're  
10 talking about here is the Yukon River plan with the --  
11 it's the Central Yukon Plan that's happening with BLM,  
12 and State and trying to find alternatives is what the  
13 State wants to -- the lands that they're trying to get  
14 with the Public Law Order 5150, if they could repeal it  
15 or lift the Public Law 5150. So they're currently in  
16 the process and I think there's other organizations  
17 that, hopefully, will speak more on behalf of that.

18

19 MR. HONEA: Yeah, I was just kind of  
20 getting confused there because the corporation, we are  
21 aware of that Webcast or something with Doyon and I  
22 believe it's next week. But I appreciate your  
23 comments. I wish there was more organization out here,  
24 either ours or AC members or something that could be  
25 listening in on this. I appreciate your concerns for  
26 that it will affect all of us, and -- so thank you.

27

28 ACTING CHAIR PELKOLA: Okay, thank you,  
29 Don. How about you, Goodwin.

30

31 (No comments)

32

33 ACTING CHAIR PELKOLA: Goodwin, are you  
34 still there?

35

36 MR. SEMAKEN: Oh, morning, yeah, I was  
37 on mute.

38

39 ACTING CHAIR PELKOLA: Oh, okay, go  
40 ahead.

41

42 MR. SEMAKEN: I was listening. I'm  
43 glad that Darrell got on here, that's quite a ways up  
44 river and big country, you know, I just know my area.  
45 This is really concerning is all I can say and with  
46 times changing pretty fast.

47

48 That's it.

49

50

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1                   ACTING CHAIR PELKOLA: Okay, thank you,  
2 Goodwin. Thank you, the Board. And also do we have  
3 any other comments or questions for Darrell.

4  
5                   (No comments)

6  
7                   ACTING CHAIR PELKOLA: Jack, do you  
8 have anything?

9  
10                  MR. REAKOFF: No, I'm good. Darrell did  
11 a good job, thanks.

12  
13                  ACTING CHAIR PELKOLA: Okay. How about  
14 you Tim.

15  
16                  MR. GERVAIS: No, Jenny, I'm good for  
17 now. Thank you.

18  
19                  ACTING CHAIR PELKOLA: Okay, thank you  
20 much. Okay, if there's no other comments or questions,  
21 we shall go on with the next topic and that is --  
22 where's my -- Karen, is that the.....

23  
24                  MS. DEATHERAGE: Good morning, Jenny,  
25 this is Karen Deatherage.

26  
27                  ACTING CHAIR PELKOLA: Yes.

28  
29                  MS. DEATHERAGE: The next update we  
30 have is from the Bering Sea Western Interior Resource  
31 Monitoring Plan by the Bureau of Land Management.

32  
33                  Thank you.

34  
35                  ACTING CHAIR PELKOLA: Okay, go ahead.

36  
37                  MR. HONEA: Madame Chair.

38  
39                  ACTING CHAIR PELKOLA: Yes.

40  
41                  MR. HONEA: Yeah, this is Don. Madame  
42 Chair, I would like to know if whatever we are  
43 discussing or whatever is -- is with the attachments or  
44 whatever that Karen had sent to the -- I'm on my  
45 computer here and I'm just wondering, you know, when we  
46 are discussing any of these issues, please let's refer  
47 to either the book or the attachments on the computer  
48 or something because it's really confusing if I have it  
49 or not.

50

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1 Thank you.

2

3 ACTING CHAIR PELKOLA: Okay, thank you.  
4 Karen, did you hear that?

5

6 MS. DEATHERAGE: Yes, Madame Chair.  
7 Thank you, Member Honea. Through the Chair. There are  
8 no current attachments that were sent for the next  
9 presentation but there are for the following. And so  
10 we'll go ahead and make note of which documents those  
11 are for your reference.

12

13 MR. HONEA: Thank you.

14

15 MS. DEATHERAGE: Thank you, Madame  
16 Chair.

17

18 ACTING CHAIR PELKOLA: Okay, go ahead  
19 with your report Bering Straits whatever.

20

21 MS. MILLION: Good morning, Madame  
22 Chair. This is Bonnie Million. That's Bonnie Million.  
23 I am the field manager for the Bureau of Land  
24 Management's Anchorage Field Office. We actually -- we  
25 do have some materials in the meeting book. We have  
26 our office update which is available on Page 47 of the  
27 meeting book and that provides an update of some of the  
28 different projects that the Anchorage Field Office is  
29 working on.

30

31 Currently, two of the ones that I would  
32 like to highlight for this particular Subsistence  
33 Regional Advisory Council are the aquatics work that my  
34 Staff is conducting on the Big River near McGrath.  
35 They've been doing quite a bit of water quality and  
36 stream discharge work on that particular river and  
37 tributaries for some critical sheefish spawning  
38 habitat.

39

40 And then the other project I'd like to  
41 highlight is we have some permafrost and climate  
42 monitoring stations that we were hoping to get out to  
43 the field last year but obviously that didn't happen.  
44 And then so we're hoping to get them out into the field  
45 this year. They're going to be around the Nikolai area  
46 along the Iditarod National Historic Trail.

47

48 But there's some other projects that  
49 are listed in that update. Again, it's Page 47 and 48

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1 in the meeting book.

2

3 So the topic at hand, which was the  
4 Bering Sea Western Interior Resource Management Plan  
5 update. On the phone we also have Thomas Heinlein.  
6 Tom Heinlein, who is the District Manager for the  
7 Anchorage District, and I will hand it over to him.

8

9 MR. HEINLEIN: All right, thank you,  
10 Bonnie. And, again, this is Tom Heinlein, the District  
11 Manager for the BLM in Anchorage as Bonnie just  
12 mentioned.

13

14 Just wanted to give a quick update on  
15 where that resource management plan is. This is,  
16 again, this is the Bering Sea Western Interior Resource  
17 Management Plan which covers about 13 million acres, a  
18 little more than that of BLM public lands, primarily in  
19 the Kuskokwim and Lower Yukon areas, and then going up  
20 the Bering Sea Coast to Norton Sound, up beyond  
21 Unalakleet, Shaktoolik, and that general area. This  
22 planning process has been place for quite some period  
23 of time, over eight years in fact. And we did finally  
24 cumulate this process in the middle of January where we  
25 did get to a record of decision, a signed record of  
26 decision, for this resource management plan. It was  
27 signed by the Secretary of the Interior at the time,  
28 David Burnhardt. So that plan is done, from my  
29 perspective. We have gotten to the record of decision.

30

31 You know, Bonnie, you can help me here,  
32 I'm not sure if in the meeting materials we have a link  
33 to the plan itself, but it can be accessed through our  
34 project planning and NEPA website. Maybe I'll just ask  
35 you, Bonnie, at this point, if we have that link?

36

37 MS. MILLION: I don't think we did but  
38 I can definitely get that link to Karen for sure.

39

40 MR. HEINLEIN: Okay. Great. So that  
41 is really the update. I know there's been a lot of  
42 interest in just the plan itself. We received a lot of  
43 input from members on this call, members of other RACs,  
44 State of Alaska, et cetera, and, yeah, I mean that is  
45 just basically it. The record of decision was signed  
46 in January and we are posed to implement the plan.

47

48 That is the end of the report that I  
49 have.

50

0161

1                   ACTING CHAIR PELKOLA: Okay, thank you,  
2 Tom. Do we have any comments or questions for Tom at  
3 this time.

4  
5                   (No comments)

6  
7                   ACTING CHAIR PELKOLA: Okay, thank you  
8 very much. The next one will be -- I wrote them down  
9 but I don't know -- is that the bycatch update, Karen?  
10

11                   MS. DEATHERAGE: Thank you, Madame  
12 Chair. This is Karen Deatherage with the Office of  
13 Subsistence Management. And, yes, we're going to  
14 prepare to launch the marine team here for their  
15 presentations today. Diana Stramm, are you on the  
16 phone yet? I know she was running a little late so I  
17 want to check and see if she's on the phone.

18  
19                   (No comments)

20  
21                   MS. DEATHERAGE: Okay. Diana Stramm,  
22 are you on the phone?

23  
24                   (No comments)

25  
26                   MS. DEATHERAGE: If not, Ellen  
27 Yasumiishi is on the phone and she is prepared to do  
28 the Eastern Bering Sea research presentation.

29  
30                   ACTING CHAIR PELKOLA: Okay, that  
31 sounds good.

32  
33                   MS. DEATHERAGE: And we did send that  
34 -- I'm sorry.

35  
36                   ACTING CHAIR PELKOLA: I said that  
37 sounds good.

38  
39                   MS. DEATHERAGE: Okay. And we did send  
40 a supplemental document awhile ago for this  
41 presentation. So it should be part of the  
42 documentation that you have in your email, Don Honea,  
43 in particular.

44  
45                   MR. HONEA: What?

46  
47                   MS. DEATHERAGE: I'm sorry.

48  
49                   MR. HONEA: Yeah, in response to what  
50



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1 you just said, Karen, I did receive -- I believe if  
2 we're going to hear from Ellen Yasumiishi, I believe is  
3 her name, from NOAA, is -- I just received that in the  
4 mail yesterday so if anybody got snail mail, that's  
5 what I'm looking at here. Are we going to be using  
6 this one?

7

8 MS. DEATHERAGE: Through the Chair.  
9 Yes, Member Honea, we will be using that document.  
10 Ellen will be using that and we did send hardcopies,  
11 it's hard to believe it took that long to get to you,  
12 but this was also distributed via email for any of the  
13 folks on the phone who would like to see that document  
14 via email.

15

16 So with that, and with the Chair's  
17 permission, we can turn it over to Ms. Yasumiishi for  
18 her presentation today.

19

20 Thank you.

21

22 ACTING CHAIR PELKOLA: Well, go right  
23 ahead.

24

25 MS. YASUMIISHI: Good morning, Madame  
26 Chair and members of the Council. Appreciate the  
27 opportunity to be here this morning to talk a little  
28 bit about what NOAA is working on in the marine  
29 environment.

30

31 I'll go through some of the current sea  
32 temperature and ice conditions. This is Rick Thoman in  
33 Fairbanks who does such a great job of providing this  
34 kind of information, what's going on out there when  
35 we're not out there. And then I'll talk a little bit  
36 about our NOAA surveys last year that were very limited  
37 due to Covid19, and we're working on policies to get  
38 more people out this year. And then I'll talk about  
39 some of the research highlights that we're looking at,  
40 linkages between sea ice, zooplankton, and fish and  
41 salmon growth rates and survival.

42

43 I appreciate your time. I'll try to  
44 make this pretty straightforward, so that if people  
45 don't have the handout then they won't be lost but,  
46 please feel free to ask questions.

47

48 On the first slide, summer temperatures  
49 in the Bering Sea back through 1900 and it shows that

50

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1 in the last 20 years we've had the top 10 warmest years  
2 on record and seven of those are in the last 10 years.  
3 However 2020 was the third warmest, so it wasn't as  
4 warm as 2016 and 2019, so that's some good news I guess  
5 on the horizon in terms of the temperature was not  
6 maximum last year.

7

8 We have satellite data that shows daily  
9 temperatures out in the Bering Sea and it's showing  
10 that the temperatures are cooler now in January and  
11 February than they were last year at this time, but  
12 they're not -- they're still above average, the mean  
13 that goes back to 1985.

14

15 Spatially when we look at the  
16 temperatures out in the Bering Sea currently they range  
17 from, you know, minus two is the sea ice up to 6  
18 degrees celsius down at the Aleutian Islands. On Slide  
19 5 it shows that this is actually these temperatures on  
20 average since 1972, particularly in the Bering Bristol  
21 Bay area, however, it's a little bit warmer off shore  
22 in the surface waters.

23

24 One difference between this year,  
25 currently and last year, at this time, there was  
26 actually ice in the Bristol Bay area, whereas this year  
27 we're seeing that that's melted. And then the ice is  
28 distributed more off shore.

29

30 Up near Norton Sound around Nome off  
31 shore temperatures last year were also a little cooler  
32 than they had been since the warm blob of 2014 when we  
33 saw things heat up. Similarly in Bristol Bay they were  
34 a little cooler last year than the average of those  
35 years, since the warm blob.

36

37 Slide 9 -- my apologies, if I'm going  
38 too fast, just say slow down, I can definitely spend  
39 more time on these graphics.

40

41 We have a survey on the Continental  
42 Shelf in the Gulf of Alaska and the Bering Sea to  
43 assess the populations of groundfish and what we  
44 started in 2005 was taking temperature readings through  
45 the water column. And we saw the temperatures increase  
46 in 2014 again throughout the water column. And last  
47 year in 2020 it started to cool off, particularly in  
48 surface waters, but the deeper waters, particularly in  
49 the Bering Sea were still above average, warmer than

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0164

1 average.

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10 participants not muted)

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Slide 11 is the only long-term survey conducted in 2020. So we have other surveys that go on to the Shelf to -- bottom trawl surveys and they're counting like pollock, cod, a bunch of different fish on the bottom. Whereas we have a longline fishery.....

(Teleconference interference - participants not muted)

MS. YASUMIISHI: .....and that's on the -- yes?

MR. HONEA: Yeah, I'm sorry, Madame Chair, but when you say Slide 11, I'm not connecting. I just got this book like so if you could tell us on the top, like I'm on -- I don't know what, it says, sea ice concentrate -- and.....

MS. YASUMIISHI: Okay, I'm sorry, yeah.

MR. HONEA: .....yeah if you could.

MS. YASUMIISHI: So I'm on the 2020 NOAA surveys.

MR. HONEA: Well, right, I mean I haven't -- could you say what it says on top. I mean I'm on sea ice concentration and I'm trying to follow this through.

MS. YASUMIISHI: Yeah. We can go back to sea ice concentration.

MR. HONEA: Well, no, no, we don't have to go back. I'm just wondering when you say Slide 11, could you tell us what it says on top there so I can follow, I don't know what page I'm on.

MS. YASUMIISHI: Okay. So the title of -- so the next slide is 2020 longline survey, and at the top it shows all the different fish species -- fish that we catch in the survey that we estimate the population numbers for, and that's the sablefish or black cod, Pacific cod.....

MR. HONEA: Right. Okay.

0165

1 MS. YASUMIISHI: .....turbot.....

2

3 MR. HONEA: All right, I'm there.

4

5 MS. YASUMIISHI: Yeah, and.....

6

7 MR. HONEA: Thank you.

8

9 MS. YASUMIISHI: Great. Thank you for  
10 -- yeah, perfect. Thank you for letting me know. And  
11 three different rockfish species and we -- all the  
12 yellow dots are where we sample with longline out to  
13 the meters to estimate the population of these fish  
14 species. So that was very successful last year.

15

16 And the next slide, Bering Sea Aleutian  
17 Island sablefish longline survey relative population  
18 numbers that we estimate from this survey show a 40  
19 percent increase in the population of sablefish and  
20 most of this is due to fish that was born in 2014 and  
21 2016 that are entering these areas, these deeper areas  
22 where the adults hang out, so those are four and six  
23 year olds that are feeding this population in the  
24 Bering Sea. Similar trends are being seen in the Gulf  
25 of Alaska.

26

27 Next we're looking at above average  
28 Pacific cod numbers in the survey also in 2020 with a  
29 17 percent increase in their population.

30

31 Slide 14 is the Bering Sea Aleutian  
32 Island Greenland-turbot which were -- remained low in  
33 their numbers. So some fish are doing better than  
34 others with these warming conditions, particularly the  
35 rockfish and the black cod, sablefish.

36

37 And next I'm going to talk about, a  
38 little bit of our Bering Sea research surveys. And  
39 these are the Continental Shelf in the south and the  
40 northern Bering Seas as indicated by the dots on the  
41 map. And what we do here is we collect fish when  
42 they're young, when they're juvenile fish, to see how  
43 fat they are and see what they're eating, see how much  
44 food is out there, and then we try to predict how well  
45 they'll survive the winter and how many fish will be  
46 available for commercial fisheries. So that's our  
47 goal. And also so we catch the juvenile pollock, a few  
48 flat fish, a lot of juvenile salmon and then a lot of  
49 the forage fish that the chinook salmon eat such as the

50

0166

1 sandlance, herring and also quite a few jellyfish.

2

3 So we only had one survey last year,  
4 most of these were cancelled due to Covid. So it was  
5 just one little line up by St. Lawrence Island where we  
6 go when we have the opportunity.

7

8 But in 2019 we sampled north of Nunivak  
9 Island up to St. Lawrence and into the Norton Sound,  
10 and it was a warm year. And in those years we see a  
11 lot of herring but very low catches of juvenile chinook  
12 salmon. And recently since this 2014 warm blob, we've  
13 caught quite a few pink salmon and sockeye salmon, but  
14 their preferred prey like the krill and the large  
15 copepod which are like the crustacean (indiscernible -  
16 muffled) not as abundant during warm years as they are  
17 during cold years.

18

19 Some of the research that we put  
20 together for this -- these surveys are below, and this  
21 is in a manuscript that I published last year. So I  
22 can provide a link for that if people are interested in  
23 reading the full report.

24

25 But for capelin, which is a really good  
26 food for juvenile chinook salmon, on the map there  
27 where it's red, that's where we see a lot of -- a lot  
28 of capelin and the blue are fewer. So these seas, they  
29 show up mostly during cold years. We've seen recently  
30 a decline in their occurrence in the southern Bering  
31 Sea, and then in 2019 up north we didn't catch any so  
32 they disappeared that year, mostly around St. Lawrence  
33 and Nunivak Island.

34

35 For herring, we catch those mostly up  
36 north around Nunivak Island, and in Norton Sound near  
37 shore and really in warm years their populations have  
38 been relatively stable up north in the last five years  
39 since it's been warm. There's a lot of them. And  
40 we've seen increases in herring in the Bristol Bay  
41 area.

42

43 Juvenile sockeye.....

44

45 MR. HONEA: I got a question.

46

47 MS. YASUMIISHI: .....Bristol Bay  
48 sockeye, they are coming out of Bristol Bay, you can  
49 see like those red bands, and they hang out on the

50

0167

1 middle of the Shelf feeding on pollock, the smaller  
2 aged pollock fish and krills. And we're seeing an  
3 increase in these fish since the 2014 warming.  
4

5                   Next slide is age zero pollock and  
6 these are fish (indiscernible - muffled) commercial  
7 fishery in the Bering Sea and the Gulf of Alaska and  
8 they're highly abundant in our surveys. They're kind  
9 of everywhere. Our survey just samples the top 20  
10 meters, mostly where the juvenile salmon hang out but  
11 these fish are all the way through the water column and  
12 they're a good food item for other fish. And so we see  
13 a lot more of them in the warm years, clearly in that  
14 middle area.  
15

16                   So in summary, in the northern Bering  
17 Sea we've had a survey since 2002 and Jim Murphy will  
18 talk a lot more about that work, he's more tightly  
19 linked with the information from that survey that he's  
20 been leading. But we've seen recently in the last five  
21 years a decline in the capelin catches, declines in the  
22 pollock catches, sable herring catches, reductions in  
23 juvenile chinook salmon catches and high stable catches  
24 of juvenile chum, (indiscernible) and also pink salmon.  
25 I didn't include pink salmon on this slide. But in the  
26 south we're seeing increases in herring and also  
27 juvenile sockeye. That's all juvenile salmon except  
28 chinook salmon.  
29

30                   And then linking sea ice to large  
31 copepods of fish on Slide 23, focus kind of on the  
32 bottom part of this cartoon. And basically what it's  
33 saying is that in cold years when ice retreats, like  
34 melts a little later in the year, there's algae trapped  
35 in the ice so when the ice melts, like March and April,  
36 that algae is released when there's enough sun to cause  
37 a bloom of plankton and that's a large (indiscernible -  
38 muffled) for these baby copepods, the smaller fatty  
39 crustaceans, zooplankton, that the smaller fish like to  
40 eat. So that's kind of the linkage that we found. In  
41 colder years it's better for some fish that eat --  
42 reply on those juvenile -- on those little zooplankton.  
43 Salmon, the capelin that the chinook salmon are eating,  
44 the capelin are eating these large copepods, so that's  
45 the important linkage between the time of ice retreat  
46 temperatures and prey for the chinook salmon. We've  
47 also used the -- the large copepod in that -- to  
48 predict pollock survival a few years later. So these  
49 pollock are eating the large copepods when they're  
50

0168

1 available and then these are just like fatty lipid rich  
2 foods that their prey feed upon, that they feed on when  
3 they do really well and their survival is increased.

4

5                   Next on Slide 25, yeah, the -- what the  
6 pollock are eating, it just shows the -- the title of  
7 the slide is age-zero pollock diets in the south and  
8 the -- the large copepods -- those are the hamburgers  
9 for these -- for these pollock. So when they have a  
10 lot of good fatty food, in my opinion, I think  
11 hamburgers, but you might think of something else, that  
12 do really well overwintering survival. They have good  
13 survival over winter.

14

15                   The next slide is the sea ice linkages  
16 between the sea ice and chinook salmon (indiscernible -  
17 muffled) and this is a paper I published, it's looking  
18 at growth on scales of chinook salmon that return to  
19 the Yukon and Kuskokwim Rivers. And it shows that  
20 their summer growth is faster -- the only  
21 (indiscernible - muffled) significant linkage with the  
22 Kuskokwim River fish and not the Yukon River fish, we  
23 -- and I'm thinking it's because the Yukon fish were  
24 bigger and they just grow faster. But the Kuskokwim  
25 River fish have slower growth when it was warmer, and  
26 they had less growth -- growth when there were fewer  
27 large copepods in the water column, and that's --  
28 that's their preferred prey that capelin are feeding  
29 on.

30

31                   So our next project will be to look to  
32 see how these large copepods, if they're correlated  
33 with the survival of Yukon and Kuskokwim River chinook  
34 salmon. And the climatologists right now are  
35 estimating zooplankton and large copepods densities in  
36 the Bering Sea going back to 1969, called a hindcast  
37 and then they're predicting how many zooplankton and  
38 copepods there would be in the mid-century, 2050 so  
39 we're going to try to link survival with copepod  
40 abundance and then do some forecasting and we're -- and  
41 I'm working with Fish and Game on this project that's  
42 just started.

43

44                   And then the next slide, it's the  
45 second to the last slide, is the essential fish habitat  
46 work we started. And Dr. Curry Cunningham at the  
47 University of Alaska-Fairbanks, we have a graduate  
48 student, William Hart, that's going to look at where  
49 the juvenile salmon are distributed in the Bering Sea  
50

0169

1 and if they're hanging out with their prey, and like  
2 what's their preferred habitat and are they avoiding  
3 warmer temperatures, are they avoiding predators. And  
4 that'll help us understand how our -- this changing  
5 environment is impacting the juvenile salmon on a  
6 spacial scale over time.

7  
8 Finally, so 2020 was cooler than 2019,  
9 and this 2021 is starting out cooler than last year.  
10 But there is low sea ice in Bristol Bay. Last year  
11 most of our NOAA surveys were cancelled. But we're  
12 optimistic right now working on measures to get people  
13 on the boats to go out and make sure we have enough  
14 fish for the commercial fishery.

15  
16 Finally, I just wanted to touch base  
17 with everyone, if you have any information that you  
18 want to see from NOAA, please let me know, and I can  
19 bring that to the table, you know, next year at our  
20 next meeting. Also feel free to email me with any  
21 questions. My email is on the last slide.

22  
23 So I want to thank you all for your  
24 time.

25  
26 Thank you, Madame Chair for having me  
27 present today.

28  
29 ACTING CHAIR PELKOLA: Okay, thank you,  
30 very much Ellen. Does anyone have any questions or  
31 comments for Ellen.

32  
33 MR. HONEA: Yeah, Madame Chair, I got  
34 about a hundred questions.

35  
36 ACTING CHAIR PELKOLA: Go right ahead.

37  
38 MR. HONEA: So I'll start.

39  
40 ACTING CHAIR PELKOLA: Yes.

41  
42 MR. HONEA: Okay, Ellen. Ellen, you  
43 actually covered a whole heck of a lot of things and  
44 it's too -- it's kind of too bad that you guys don't  
45 have seminars for -- where we could spend more time  
46 going over some of that. You know, when I'm looking at  
47 the fish there that's out there congregating out there  
48 and I'm just thinking of the fish that comes up the  
49 Kuskokwim River or the Yukon that affects us, you know,  
50



0170

1 when we're talking about bycatch, I'm just wondering  
2 are we -- you know we are more concerned about the  
3 bycatch of our salmon, whether it's chum or chinook or  
4 whatever. But is it -- right across the board, are we  
5 seeing maybe -- are we seeing a bycatch, equally, like  
6 the sablefish or the rockfish or blackspotted or  
7 something, it's not just the salmon that we are  
8 depending on, that we are concerned about, straight  
9 across the board. I mean we -- I wish we could spend  
10 more time on this or something like that, maybe --  
11 maybe I could pull it up on my computer and try to get  
12 a grip on this but there's so many variables, you know,  
13 the temperature, global warming, and I don't see no  
14 doggone global warming right now down in the Lower 48  
15 but I just had a question about the -- about the  
16 longline survey. And the.....

17

18 (Teleconference interference -  
19 participants not muted)

20

21 MR. HONEA: .....and the -- the fish  
22 that are on there, are they being caught up as bycatch  
23 also?

24

25 Thank you.

26

27 MS. YASUMIISHI: Yes, through the  
28 Chair. Yes, so the -- the straight answer is yes,  
29 there is increase in bycatch, especially sablefish and  
30 it's becoming a huge concern that's.....

31

32 (Teleconference interference -  
33 participants not muted)

34

35 MS. YASUMIISHI: .....and that's a  
36 great question for Diana Stramm. She'll be presenting  
37 next. We are working towards finding our estimates of  
38 the impact of the commercial pollock fishery on salmon  
39 bycatch. So I'm working with the genetics program  
40 where we collect salmon that are bycatch and I'm -- I'm  
41 aging those fish and then the genetics program,  
42 determining where those fish would have gone up to  
43 spawn. So we should have a better idea of, you know,  
44 what of the impact of commercial fishing on -- on  
45 salmon bycatch. I'm not the expert so Diana Stramm  
46 would be really -- really good to discuss that.

47

48 In terms of seminars, please feel free  
49 to email and I can connect you with folks. I can

50

0171

1 connect you with seminars for you -- for you to learn  
2 more about what we're doing. And.....

3

4 MR. HONEA: Well, what I -- what I'd  
5 like to see is if I'm sitting on my computer and I pull  
6 this up I'd like to be able to see what you guys do,  
7 how long you been in existence, et cetera. I mean this  
8 -- this opens up a lot of questions that, you know, I  
9 mean -- where exactly do you sit with the -- like the  
10 bycatch issue and stuff like that. I mean what -- what  
11 effect does it have on -- et cetera. So if you guys  
12 have a -- have an email site that would explain your --  
13 the projects that you do, that would be great and I  
14 appreciate that.

15

16 Thank you.

17

18 MS. YASUMIISHI: Yeah, Madame Chair.  
19 Through the Chair. I can definitely put together a  
20 website -- a list of websites for people to go to if  
21 that's of interest. I can work with Madame Chair on  
22 that.

23

24 ACTING CHAIR PELKOLA: Okay, do we have  
25 any more comments or questions for Ellen.

26

27 (No comments)

28

29 ACTING CHAIR PELKOLA: Okay.

30

31 MR. GERVAIS: Jenny, this is Tim. May  
32 I make a comment or should I wait until later.

33

34 ACTING CHAIR PELKOLA: No, you can make  
35 it now.

36

37 MR. GERVAIS: Thank you, Madame Chair.  
38 This is Tim Gervais. Thank you for your presentation  
39 Ellen. It's a lot of information, almost too much  
40 information for our level of scientific understanding  
41 but it's good we can review the parts we need.

42

43 First, I'd like to ask you, as a  
44 researcher, are you more involved with personally is it  
45 environmental change, or food chain dynamics?

46

47 MS. YASUMIISHI: Through the Chair.  
48 Yes, Tim, I'm -- yeah, I've worked for NOAA for 25  
49 years now so I'm interested in like how the ecosystem

50

0172

1 changes and how that impacts fish growth and feeding  
2 and survival, so kind of evolving, you know, in that  
3 direction. What -- what our goal is to understand  
4 what's driving the survival of fish. I'm looking at  
5 their condition and their diets and their growth when  
6 they're really young.

7  
8 MR. GERVAIS: Okay. So it's my  
9 understanding that from say like 1991 when the BSAI  
10 trawl fishery started and now, that the overall  
11 population of chinooks, or as we commonly refer to it  
12 in the Western Interior as king salmon, is much lower  
13 than it was in 1991. And we have spent a lot of work  
14 with this Council on looking at bycatch. Can you, as a  
15 researcher, say that based on environmental conditions,  
16 sea temperature conditions or food conditions that the  
17 decline of the chinook population can be attributed to  
18 a temperature environmental or food factor?

19  
20 MS. YASUMIISHI: Yes, through the  
21 Chair, this is a great complicated question. One thing  
22 we had seen with chinook is the reduction in the size,  
23 their body size when they come back to spawn and I  
24 don't know if that's something that's been observed in  
25 the river also. And we know that smaller fish have  
26 fewer eggs, eggs are smaller, and they have pretty few  
27 -- fewer fry with -- smaller fry, so in terms of --  
28 that's what we're trying to understand is what's  
29 driving their changes in size in the ocean and one of  
30 those seems to be the link between their prey and like  
31 the capelin, and the prey of their prey which are those  
32 zooplankton.

33  
34 So that's one part of what we're hoping  
35 to address with this climate project that's timecasting  
36 and forecasting large copepods is to see how important  
37 (indiscernible)

38  
39 (Teleconference interference -  
40 participants not muted - typing)

41  
42 MS. YASUMIISHI: .....but I don't think  
43 that answers your question completely but  
44 (indiscernible - muffled) that question. And if you  
45 have any others.

46  
47 MR. GERVAIS: The projects that you  
48 bring up, I'm trying to find the slide for it. Okay,  
49 essential fish habitat for Alaskan salmon, does that  
50

0173

1 have a timeline, like will it be done in three or four  
2 years or is it ongoing?

3

4 MS. YASUMIISHI: Yeah, this is just --  
5 through the Chair -- Madame Chair. This project was  
6 just funded by NOAA back at headquarters, back east,  
7 and so our graduate student started this fall -- or  
8 this spring, so we have a two year timeline, and I'd be  
9 willing to present an update next year on that, the  
10 findings.

11

12 MR. GERVAIS: All right. Well, thank  
13 you, and maybe your colleagues can work into this --  
14 these questions, chinook king salmon is supposed to be  
15 one of the main pillars of our subsistence economy in  
16 Western Alaska and right now it's not available for us  
17 in very much quantity and we're having a lot of trouble  
18 even meeting biological escapement goals on the rivers  
19 so any kind of knowledge or information that you can  
20 add to everyone's understanding of what's going on and  
21 what it will take to get the chinook stocks rebuilt and  
22 also would be monumentally appreciated by many people.

23

24 So thank you for your efforts.

25

26 MS. YASUMIISHI: Yeah, through the  
27 Chair. Thank you, Tim. Feel free to send me an email  
28 and keep in contact to discuss this more, in more  
29 detail.

30

31 ACTING CHAIR PELKOLA: Okay, thank you,  
32 Ellen. That was a very good job and like Don said it  
33 was a little long for our -- I was trying to follow  
34 along and the presentation was good, a lot of -- a lot  
35 of things to sink in. And I just thank you again and  
36 hope to be hearing from you in the future.

37

38 MS. YASUMIISHI: Thank you, Madame  
39 Chair and the Committee.

40

41 ACTING CHAIR PELKOLA: Okay, with that,  
42 are we ready for the research or what -- Karen?

43

44 MS. DEATHERAGE: Madame Chair, this is  
45 Karen. Can you hear me?

46

47 ACTING CHAIR PELKOLA: Yes. Yes.

48

49 MS. DEATHERAGE: Thank you, Madame

50

0174

1 Chair. This is Karen Deatherage with OSM. And next we  
2 have up, timely, given the bycatch questions, Diana  
3 Stramm with NOAA will be presenting the information she  
4 has on salmon bycatch.

5  
6 Thank you, Madame Chair.

7  
8 ACTING CHAIR PELKOLA: Okay, Diana.

9  
10 MS. STRAMM: Madame Chair, this is  
11 Diana Stramm, can you hear me okay?

12  
13 ACTING CHAIR PELKOLA: Yes. Yes, I can  
14 hear you.

15  
16 MS. STRAMM: Okay, great, thank you,  
17 Madame Chair. Morning. I have some slides that I  
18 believe Karen has distributed. I'll try to -- I'll  
19 walk through the information on the slides and just  
20 indicate which number slide I'm on so people -- if  
21 you're following along, if not everyone got the slides  
22 I'll try to just describe as well what's on them.

23  
24 So I have a brief overview.....

25  
26 MS. DEATHERAGE: Excuse me, Diana. I  
27 apologize for interrupting but the previous  
28 presentations, we asked that you could read the title  
29 of the slide instead of the numbers, that would be very  
30 much appreciated and allow some of our Council members  
31 and participants to follow along more closely. This is  
32 bycatch outreach presentation was emailed to everybody.  
33 It was recently received so we did not have time to  
34 send that out via mail, but it was emailed, actually  
35 last night. So if you want to check your email, that  
36 slide presentation is called Salmon Bycatch Outreach  
37 2021.

38  
39 Thank you, Madame Chair.

40  
41 ACTING CHAIR PELKOLA: Thank you,  
42 Karen.

43  
44 MS. STRAMM: Thank you. I'll be sure  
45 to do that.

46  
47 ACTING CHAIR PELKOLA: Go ahead, Diana.

48  
49 MS. STRAMM: Thank you, Madame Chair.

50

0175

1 Okay, so I have a brief overview of salmon bycatch  
2 management in North Pacific groundfish fisheries. I  
3 will provide a little bit of an overview of who the  
4 Council is and what we manage and then get into the  
5 specific issues of salmon bycatch management with a  
6 particular emphasis on the Bering Sea.

7  
8 The next slide is -- the title is  
9 What's the Council. So the North Pacific Fishery  
10 Management Council manages along side the National  
11 Marine Fisheries Service, so together we manage the  
12 Federal fisheries three to 200 miles off shore. We  
13 coordinate with and sometimes jointly manage with the  
14 State of Alaska, depending on the species. The Council  
15 makes policy recommendations to the National Marine  
16 Fisheries Service. The National Marine Fisheries  
17 Service, through the Secretary of Commerce, approves  
18 those recommendations and then the National Marine  
19 Fisheries Service implements and enforces them. So  
20 they do the in-season management aspect. The Council  
21 recommends the policy direction for the management  
22 actions.

23  
24 (Teleconference interference -  
25 participants not muted)

26  
27 MS. STRAMM: The next slide, the title  
28 is Council management -- Council membership. And just  
29 to provide an overview, we have 11 voting members, six  
30 of whom are from Alaska, five of those are appointed by  
31 the Governor of Alaska, one is our -- I'm sorry, the --  
32 seven overall are appointed, we have agency  
33 representatives so the seat for the Commissioner of  
34 Fish and Game is currently held by Ms. Rachel Baker;  
35 Deputy Commissioner. There is a seat for the National  
36 Marine Fisheries Service that is appointed and that is  
37 the head of the NMFS regional office, National Marine  
38 Fisheries Service, Dr. Jim Balsiger, with an alternate  
39 for Mr. Glenn Merrill. The remaining seats for Alaska  
40 then are appointed by the Governor of Alaska and then  
41 there are seats -- there are three seats for the state  
42 of Washington, one for Oregon. And then we have non-  
43 voting members. We have four non-voting members that  
44 are advisory. We have non-voting from the U.S. Fish  
45 and Wildlife, the U.S. Coast Guard, Pacific State, and  
46 then the U.S. State Department. And then also sitting  
47 at our Council table is our Executive Director. Our  
48 current Executive Director is Mr. David Witherell.

49  
50

0176

1 The next slide.....

2

3 MR. HONEA: Diana.

4

5 MS. STRAMM: .....is entitled -- the  
6 title is -- yes, go ahead.

7

8 MR. HONEA: Madame Chair. I don't know  
9 if I could just interject here because I don't want to  
10 lose a train of thought but I just had a question on  
11 this, on the membership council -- Council membership,  
12 and I didn't want to wait until the end because I might  
13 forget it. But, anyway, this is Don Honea, and I had a  
14 question on the Council membership, where does the  
15 Alaskans, like Ben Stevens sits on one of these, is he  
16 one of the -- I don't see him on there, the membership  
17 Council, is he the non-voting member?

18

19 MS. STRAMM: Thank you, Madame Chair.

20

21 MR. HONEA: This is the North Pacific  
22 -- this is the North Pacific Management Council, is it  
23 not, I mean.....

24

25 MS. STRAMM: Thank you.....

26

27 MR. HONEA: .....so where are our --  
28 where exactly is our Alaskan reps?

29

30 MS. STRAMM: Thank you, Madame Chair.  
31 The -- Madame Chair -- through the Chair. The current  
32 Alaska representatives -- and so Ben Stevens was on our  
33 advisory panel, I don't believe he is currently. So  
34 Mr. Andy Mezirow is on our Council for Alaska. Ms.  
35 Cora Campbell. Mr. John Jensen. Again, Rachel Baker,  
36 as the designee for the Commissioner of Fish and Game.  
37 Simon Kinneen is our Council Chairman, he's from Nome.  
38 And Nicole Kimball is also on our Council. So those  
39 are the Alaska designees as well as the Commissioner of  
40 Fish and Game and, again, also representing Alaska is  
41 the National Marine Fisheries Service.

42

43 MR. HONEA: Okay.

44

45 MS. STRAMM: So there are.....

46

47 MR. HONEA: Thanks.

48

49 MS. STRAMM: .....six Alaska

50

0177

1 representatives.

2

3 MR. HONEA: All right, thank you.

4

5 MS. STRAMM: You're welcome. So the  
6 next slide is major fish species managed by the North  
7 Pacific Fishery Management Council and this just shows  
8 you a map of the major fish species that we manage.  
9 Cod, pollock, flat fish species, mackerel, sablefish.  
10 We also, jointly with the State of Alaska, manage the  
11 king crab and snow crab species in the Bering Sea as  
12 well as scallops across the Gulf of Alaska and the  
13 Bering Sea. And then we have allocative measures with  
14 the International Pacific Halibut Commission for the  
15 management of Pacific halibut.

16

17 (Teleconference interference -  
18 participants not muted)

19

20 MS. STRAMM: The next slide then says  
21 -- the title is who manages what fisheries off Alaska.  
22 And, again, this just shows you what jurisdiction the  
23 Council has as opposed to those that are held by the  
24 Alaska Board of Fisheries with the Alaska Department of  
25 Fish and Game and the International Pacific Halibut  
26 Commission. So for species such as herring, salmon,  
27 and then other species such as shrimp, urchins, et  
28 cetera, those are solely under the jurisdiction of the  
29 Alaska Department of Fish and Game with decisions made  
30 by the Board of Fisheries. Our only jurisdiction, as  
31 I'll go into, for salmon, is as it relates to the  
32 bycatch of salmon in groundfish fisheries. With  
33 respect to the groundfish fisheries in the Bering -- in  
34 the Federal waters of the Bering Sea and the Gulf of  
35 Alaska, the North Pacific Council has sole oversight of  
36 the allocation and the conservation, so both the  
37 assessment and the allocation of all of the groundfish  
38 species. We do work with the Alaska Department of Fish  
39 and Game on some of the State fisheries that occur in  
40 shore for groundfish. We have shared management with  
41 the Alaska Department of Fish and Game on crab species,  
42 as well as on scallop species. And, again, for halibut  
43 we have management of the allocation of who catches it,  
44 but the International Pacific Halibut Commission does  
45 all of the conservation and assessment and they decide  
46 what the actual quotas are.

47

48 The next slide then says Federal  
49 jurisdiction off Alaska and fishery management zones by

50



0178

1 Regional Council. So this just shows you in a map view  
2 what the exclusive economic zones by each Regional  
3 Councils, there are eight fishery management councils  
4 across the United States, we are the North Pacific.  
5 And we, again, coordinate with State and Federal  
6 management organization.

7

8 So that's just a brief snapshot of who  
9 we are.

10

11 MS. DEATHERAGE: Hi, Diana, this is  
12 Karen Deatherage, through the -- with the Chair's  
13 permission, may I make a quick announcement.

14

15 MS. STRAMM: Yes.

16

17 ACTING CHAIR PELKOLA: Yes.

18

19 MS. DEATHERAGE: I'd like to ask people  
20 to please remember to mute their phones. We're getting  
21 an echo here and we're also getting some background  
22 noise, and this is very important, yet detailed  
23 information so it'd be helpful, press star six to mute  
24 your phone and star six to unmute your phone, if  
25 needed, and I appreciate the consideration.

26

27 MR. HONEA: Hello. Hello.

28

29 MS. DEATHERAGE: Yes, we can hear you.

30

31 MR. HONEA: Oh, could you hear me now?

32

33 ACTING CHAIR PELKOLA: Yes.

34

35 MS. DEATHERAGE: Okay, thank you,  
36 Diana, you can continue and thank you for your  
37 patience.

38

39 MS. STRAMM: Thanks, no problem. I had  
40 a little background noise going on here as well outside  
41 so I hope that that's not destructive, I was trying to  
42 close myself off.

43

44 I'm now on the slide that says what is  
45 bycatch. So now we'll move into the specific aspects  
46 of this that have to do with bycatch in the North  
47 Pacific.

48

49 So the next slide also says what is

50

0179

1 bycatch. This gives you the definition under the  
2 Magnuson-Stevens Act, which is what is our defining law  
3 as well as common terms. The short answer to what's on  
4 the slide is that bycatch is discarded fish, that is  
5 not intended to be caught in a fishery. The important  
6 aspect as it relates to salmon is on the right side of  
7 the slide where it says prohibited species catch, so  
8 that's what PSC stands for. And prohibited species  
9 catch is the designation under our fishery management  
10 plan that these are fish that are caught accidentally  
11 and they must be returned to the sea with a minimum of  
12 injury and that includes Pacific halibut, Pacific  
13 herring, all salmon species as well as king crab and  
14 bairdi and snow crab. So that is what falls under for  
15 salmon as well.

16  
17 So the next slide says bycatch controls  
18 for prohibited species. So, again, salmon and halibut  
19 as well as crab and herring are bycatch species that  
20 are defined as prohibited species. So they cannot --  
21 they must be avoided, and they cannot be retained or  
22 sold, they're just counted. But some is donated to  
23 food banks. So the Council has implemented over the  
24 years additional measures to reduce bycatch in the  
25 groundfish fishery. We do this primarily in two  
26 different ways, we have bycatch caps, which are also  
27 known as PSC limits, and that stands again for  
28 prohibited species catch, and we have previously used  
29 time and area closures. We currently have time and  
30 area closures for herring. We have moved away from  
31 those as I'll get to for salmon. We used to manage  
32 salmon bycatch by time and area closures, that was  
33 problematic because fixed closures aren't responsive to  
34 changing environmental conditions and they were just  
35 not deemed as effective. The Council also encourages  
36 industry efforts to reduce bycatch through gear  
37 modifications and communications. And for example, the  
38 Council and the industry have been working on salmon  
39 and halibut excluders so these are a mechanism that's  
40 built into the trawl nets that allows salmon, in  
41 particular, to escape from the trawl nets. There's  
42 also excluders for halibut but since we're focused more  
43 on salmon here the measures for salmon, the -- as this  
44 is built into the net creates a lea in the current, so  
45 the current is moving slower as it is near that hole in  
46 the net, pollock are not as strong swimmers as chinook  
47 and chum, and particularly chinook, and so the chinook  
48 are able to find that hole in the net and escape, and  
49 they've been developing these over many years. The  
50

0180

1 industry's taken the lead on this. They've become  
2 extremely effective and a very good way to help the  
3 chinook escape from the pollock net and not be drawn  
4 backwards into the trawl net, and I'll get into that in  
5 a bit, that's one of the provisions we put into place.

6  
7 (Teleconference interference -  
8 participants not muted)

9  
10 MS. STRAMM: Next slide then says  
11 management measures specific to salmon PSC.

12  
13 So the next slide then is salmon  
14 bycatch programs. And it's important to understand  
15 that management in the Bering Sea is different from  
16 management in the Gulf and that is primarily due to the  
17 management structure of the groundfish fisheries  
18 themselves. So we have a very complicated management  
19 program in the Bering Sea to reduce salmon bycatch. We  
20 are able to do that because of the rationalized  
21 structure of the Bering Sea pollock fishery. The Gulf  
22 of Alaska, however, the measures in place to reduce  
23 salmon bycatch are a little bit more blunt, they can't  
24 be as refined as the measures in the Bering Sea because  
25 the fisheries themselves do not have the kind of  
26 rationalized structures that the Bering Sea pollock  
27 fishery does. So the important thing about the Bering  
28 Sea is that there are PSC limits so these are hard  
29 limits, which means that when that limit is reached,  
30 whether by season or by sector, then the sector that  
31 has reached their limit must stop fishing. And I'll go  
32 into detail on the next couple slides about it, but we  
33 have also put into place a lower cap now that is a  
34 based on an estimate for western Alaska chinook stock  
35 status. And the limits in the Bering Sea are allocated  
36 by sector and season and they're are additional  
37 measures that have been put into place recently in  
38 order to allow flexibility so that the fleet can catch  
39 pollock in times where they are not running into as  
40 much chinook. In order to put into place this type of  
41 a management structure since this original program was  
42 put into place in 2011, the fleet is under 100 percent  
43 observer coverage and I'll go into the next slide.

44  
45 All salmon are counted in a census. I  
46 won't too much on the Gulf of Alaska, since you're more  
47 interested in the Bering Sea. But I would just note  
48 that while the enumeration measures are the same for  
49 salmon, the overall structure is less refined and a  
50

0181

1 little bit more blunt because of the nature of the  
2 fishery.

3

4 In the Bering Sea we do have a census  
5 plan agreement and those are sector level incentive  
6 programs that are designed to reduce encounters at all  
7 level of abundance through various measures.

8

9 The next slide then says measures to  
10 minimize salmon PSC in the BSAI.

11

12 And while we talk about salmon overall,  
13 only chinook and chum are the salmon species that are  
14 encountered by the groundfish fishery. So the  
15 regulatory measures that are in place, and this is our  
16 chinook salmon bycatch program in the Bering Sea  
17 pollock fishery, it was put into place via two  
18 amendments to our fishery management plan, Amendment  
19 91, and Amendment 110.

20

21 And so Amendment 91 then put into place  
22 a dual cap system where there is a overall PSC limit  
23 that is divided by sector and season and then there is  
24 a lower performance standard also divided by sector and  
25 season. And the intent is that each sector must come  
26 up with an incentive plan that is designed to ensure  
27 that their sector will not reach the lower cap in any  
28 year of abundant -- of encounter rate. If that sector  
29 reaches that lower cap in more than two out of a  
30 rolling seven years they will, forever then, be held to  
31 the lower cap level. So it is incumbent upon them to  
32 not be managing to the higher limit, they are all  
33 managing to avoid the lower limit so that they are not  
34 held to the lower limit in perpetuity. And these are  
35 done through incentive plan agreements. More recently,  
36 with Amendment 110, which was implemented in 2016 the  
37 Council incorporated a lower cap level. So a system of  
38 lower cap levels when the Western Alaska.....

39

40 UNIDENTIFIED VOICE: Hello. Hello.

41

42 MS. STRAMM: .....three river system  
43 index is less than 250,000 fish as estimated by the  
44 post-season in-river chinook salmon run size for the  
45 combined Kuskokwim, Unalakleet, and upper Yukon  
46 aggregate stock grouping.

47

48 UNIDENTIFIED VOICE: Hello.

49

50

0182

1 MS. STRAMM: So on an annual basis the  
2 Council is provided with a letter from the Alaska  
3 Department of Fish and Game in October indicating  
4 whether or not the aggre.....

5  
6 MR. HONEA: Madame Chair.

7  
8 MS. STRAMM: .....aggregate post-season  
9 run size for those three rivers is greater than.....

10  
11 ACTING CHAIR PELKOLA: Yes.

12  
13 MS. STRAMM: .....or less than 250,000  
14 fish and that determines.....

15  
16 MR. HONEA: Yeah.

17  
18 MS. STRAMM: .....what level the limit  
19 is the following year.

20  
21 ACTING CHAIR PELKOLA: Hang on, Diana,  
22 comment.

23  
24 MR. HONEA: Yeah, thank you, Madame  
25 Chair. I hate to interject but I don't want to have to  
26 go back on this. But I'm looking at the regulatory  
27 measures you have Amendment 110 here, and I was going  
28 to ask at the end there, do you have two different  
29 numbers for like chinook or summer chum or something,  
30 you have a 60,000 -- I was just wondering what the  
31 number was these days and then you have a 45,000  
32 number. Are these -- is one of them for chinook and  
33 one for chum or something?

34  
35 MS. STRAMM: Thank you for the  
36 question. Through the Chair. No, I'm sorry, and I  
37 apologize if I didn't explain this better. These are  
38 all chinook PSC limits, so it's only for chinook. And  
39 the difference between those numbers is that in a year  
40 where Western Alaska chinook, as estimated based on the  
41 combined three river system index is greater than  
42 250,000 fish then the top level number, again,  
43 aggregated -- separated out by sector and season, but  
44 those are the numbers that go into place in regulation  
45 that year. And so -- and then if the aggregate three  
46 river system index is less than 250,000 fish, which is  
47 to indicate a low chinook Western Alaska chinook  
48 abundance, then the lower cap numbers go into place for  
49 that year. So this is a switch that happens every year  
50

0183

1 in the fall. And, currently, in 2021, we are under the  
2 lower cap. So the caps that are in place for 2021, the  
3 overall PSC limit is 45,000, the performance standard  
4 is 33,318. And, again, those numbers are just the  
5 summed over all the sectors. Each sector has its -- a  
6 lower number, a portion of that that is then divided  
7 out again by season. So the numbers that they're being  
8 held to are much, much smaller than that, but we are in  
9 a low chinook abundance year and so we are under the  
10 less than 250,000 fish cap which leads to overall cap  
11 of 45,000 and a lower cap of 33,000.

12

13 MR. HONEA: Okay, I appreciate that  
14 clarification on that because when we, as -- whether  
15 it's InterTribal Fish Commission or YRDFA or whatever,  
16 you know, me, I was just wondering what our -- what our  
17 cap was and this explains it a lot. So I'm sorry for  
18 keep interjecting here but I had to know those numbers.  
19 I appreciate that, thank you.

20

21 Thank you, Madame Chair.

22

23 MS. STRAMM: Thank you for the  
24 question. I don't have a problem being interrupted so  
25 feel free to jump in whenever, I'm happy to pause and  
26 answer questions as they come rather than waiting.

27

28 MR. HONEA: Great.

29

30 MS. STRAMM: While we're still on this  
31 slide then, there are voluntary measures in place as  
32 well. They're called voluntary, they're not really  
33 voluntary, it's just that they're managed under  
34 industry cooperative structure. So part of what we did  
35 under Amendment 110 was to ensure that their incentive  
36 plans must include these measures. So those measures  
37 are hot spot closures that are put into place on a real  
38 time basis during the week to move the fleet away from  
39 high areas. The excluders, again, these escape panels,  
40 there are penalties in place for vessels that have  
41 higher salmon bycatch rates than other vessels in a  
42 sector, and as well as reward systems for vessels that  
43 are performing better. And also there are restrictions  
44 in place for vessels that do not fish -- that fish into  
45 September and October. And there are now requirements  
46 -- previously the salmon excluders or those escape  
47 panels were voluntary and kind of on a trial basis,  
48 they are now mandated by each of the incentive plan  
49 agreement so that their vessels must use those escape  
50

0184

1 panels.

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So those are all additional measures that are in place in the Bering Sea pollock fishery to reduce chinook bycatch.

MR. HONEA: Diana.

MS. STRAMM: Yes, go ahead.

MR. HONEA: Yeah, I had one other question. You got a three river system index here so what is the -- Yukon, Kusko and what -- what is the other one?

MS. STRAMM: Sure. It's the Kuskokwim, the Unalakleet and the upper Yukon. And we went through an analysis, and using those three we -- we looked at different combinations of river systems across -- again -- these -- across Western Alaska and the one that we had looked at -- we were basically trying to look at when those runs tended to be down and they tended to be down at the same time. When we included something like the Nushagak in there, it -- the relationship didn't hold up because the Nushagak was fluctuating on a different timing. So that's the reason why those three rivers were chosen because there seemed to be a clear break in the data in years that -- we looked at years that the run sizes were low and subsistence restrictions were in place and there seemed to be a clear break at 250,000 when you use those three river systems together as a snapshot at when Western Alaska chinook were not doing well.

MR. HONEA: Thank you.

MS. STRAMM: You're welcome. Okay, the next slide is, again, another going back to what the programs are across the Gulf and the Bering Sea and also just on the Bering Sea. IT is, obviously full retention of salmon. There are electronic monitoring provisions. I would note that these provisions for electronic monitoring are to ensure accountability. They are not to count the salmon. There is an observer on board all the time, all of the salmon are censused so every salmon that comes on board is counted. And then there's a systematic genetic sampling program. I caught the tail end of Ellen's talk, I know she mentioned that they do take those samples from the

0185

1 bycaught fish, so when they're doing their census of  
2 salmon they have a protocol for, I believe, it's one in  
3 10 chinook that come on board, one in 30 chum that come  
4 on board and they take systematic genetic samples from  
5 those fish and then on an annual basis we get an update  
6 to the Council on the results of the genetic sampling  
7 of chum and chinook.

8  
9 The -- we have annual reports that the  
10 industry must provide to the Council. These reports  
11 come in in April. So in a month we will be having this  
12 as an agenda item, where these reports are brought to  
13 the Council. There's three parts to the report.  
14 There's a stock report from the overall pollock fishery  
15 that provides the numbers and what monitoring  
16 requirement. There's the sector level report, so these  
17 are the IPA reports. And each sector must report to  
18 the Council in written and they provide an oral report  
19 on all the measures they put into place to reduce  
20 chinook -- all levels of abundance in the past year as  
21 well as what measures they've done to reduce chum  
22 bycatch. And then from the agency, from the Auke Bay  
23 Lab, we receive the annual genetics report of the  
24 genetic stock of origin of chinook salmon.....

25  
26 UNIDENTIFIED VOICE: I'm not trying to  
27 call now.

28  
29 (Teleconference interference -  
30 participants not muted)

31  
32 MS. STRAMM: .....as well as chum  
33 salmon.

34  
35 UNIDENTIFIED VOICE: Are you going to  
36 take those.....

37  
38 MS. STRAMM: We receive similar reports  
39 in the Gulf of Alaska. They're slightly different  
40 because the structure of the management program is  
41 different but we also receive genetic reports on the  
42 fish from -- that are caught in the rockfish fishery  
43 and the ATF fishery for chinook as well as the genetics  
44 for chum.

45  
46 (Teleconference interference -  
47 participants not muted)

48  
49 MS. STRAMM: So the next slide then  
50



0186

1 talks about trends and genetic breakouts. And there's  
2 two panels here. The lefthand panel is chinook, the  
3 righthand panel is chum. And this provides you an  
4 overall -- the line then is the number of salmon caught  
5 as bycatch from 2003 through 2019, and then the red  
6 line shows you for chinook what the PSC limit is and  
7 what the performance standard is. That's not including  
8 the lower levels that we have in place in 2020 and  
9 2021.

10

11 (Teleconference interference -  
12 participants not muted)

13

14

15 MS. STRAMM: So what you see from this  
16 is that we had this enormous high of salmon bycatch in  
17 2007 at 120,000 fish caught in bycatch in the pollock  
18 fishery. This was during a time that we were managing  
19 bycatch.....

20

21 (Teleconference interference -  
22 participants not muted)

23

24 MS. STRAMM: .....in time area closures  
25 that we found to be ineffective and so from 2007 on the  
26 Council began this new management program. The new  
27 management program was recommended -- the two cap  
28 program was recommended by the Council in 2009 and  
29 implemented for the first time in 2011. And you can  
30 see that we have never -- an aggregated approach the  
31 performance standard or the PSC limit since that time.

32

33 In the upper right panel of that graph  
34 you see a pie chart. That pie chart shows you the  
35 genetic stock of comp -- stock composition genetic to  
36 show you what proportion of the fish on an annual basis  
37 are estimated to be coming from individual areas. And  
38 what you see is the blue shows you the coastal west  
39 Alaska and the upper Yukon combined that makes up that  
40 percentage of the fish in that -- in that estimate,  
41 with here -- 25 percent in 2017 when those genetics  
42 were put in place. On the righthand side then you have  
43 the same for the chum salmon bycatch, again, in the  
44 early, mid-2000s we had a real spike in chum bycatch,  
45 we hadn't started trying to manage two different chum  
46 bycatch levels. Currently chum is folded into the  
47 incentive plan agreements of the individual sectors and  
48 they are generally managed, chum, by these hot spot  
49 closures. Chinook is the priority. The majority of

50

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1 chum genetically are coming from Asian hatcheries,  
2 which is what you see in the green pie charts, with the  
3 coastal west Alaska in that year being less than 20  
4 percent for chum. And so when the fishery is  
5 operating, avoiding chinook is their first priority,  
6 avoiding chum is their second priority. And then other  
7 bycatch management species fall below that. So this is  
8 the way that they manage where their avoidance  
9 techniques come into play.

10

11 The next slide then is the impact rate  
12 of bycatch on the combined Western Alaska rivers. So I  
13 would note that genetically and I apologize if you  
14 already went over this, but genetically the stock  
15 composition break outs for chinook, the upper Yukon can  
16 be broken out separately and so a separate estimate for  
17 the upper Yukon is provided annually. But the  
18 remainder of the Western Alaska system right now is  
19 combined into what's called the combined Western Alaska  
20 genetic breakout. So that includes, while they can  
21 break out the middle Yukon, the middle Yukon gets  
22 lumped back in because they can't break out the lower  
23 Yukon at present and, nor, can you break the Kuskokwim  
24 out separately. So everything from the Nushagak up and  
25 -- up through Norton Sound, with the exception of the  
26 upper Yukon is combined into this combined CWAK or  
27 combined Western Alaska genetic breakout. And so  
28 that's why we have to report the results that way,  
29 there is -- I'll get into this in the next slide, there  
30 is some movement towards being able to refine some of  
31 the stock composition estimates into the future. But  
32 for right now what this is showing you on this slide,  
33 the impact rate for bycatch on the combined Western  
34 Alaska system, what we do analytically, is we estimate  
35 what the adult equivalent is, so when we look at the  
36 stock composition estimate combined with the number of  
37 bycatch chinook in a certain year, we then also look at  
38 -- a portion of that was from this combined area and  
39 then we look at the ages of the fish and the bycatch.  
40 And so while they can span a number of ages, we get  
41 ages from the observers that are collecting information  
42 on length when the fish come on board, they --  
43 generally the high proportion of ages in the bycatch  
44 tend to be three to four year old fish. There are a  
45 very small amount that are five, six and seven. Almost  
46 none that are younger than the three, but on occasion.  
47 And so we use that information as well as the estimated  
48 maturity rate by river system in coastal west Alaska to  
49 estimate what the impact is in any one year of the

50

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1 bycatch. So some of the bycatch, the impact is lagged  
2 several years, because the fish are only three and  
3 would not have returned until they were six or seven.  
4 And so you could have high bycatch in one year but a  
5 lingering impact for years to come because of the lag  
6 to impacts there.

7

8 So this graph is just showing you for  
9 the coastal west Alaska stock, we look at what our  
10 estimated AEQ, which is the adult equivalent, so the  
11 fish that would have come back, combined -- divided by  
12 the overall run strength of all of those rivers  
13 combined.....

14

15 (Teleconference interference -  
16 participants not muted)

17

18 UNIDENTIFIED VOICE: Hello. Hello.

19

20 MS. STRAMM: .....to look at what the  
21 percent impact in any one year the bycatch represents.  
22 So you can see that in -- and I apologize if the years  
23 don't come -- but the high point here is in 2007 and  
24 2008, and you can see that in that point.....

25

26 UNIDENTIFIED VOICE: Hello.

27

28 MS. STRAMM: .....the general estimate  
29 of the impact rate was closer to six to seven percent  
30 whereas in more recent years and since the enactment of  
31 the new bycatch management program, the overall impact  
32 has always been less than two percent. This is for  
33 coastal west Alaska but we have a similar estimate that  
34 we do for the upper Yukon, and that is also under two  
35 percent since we've put this new bycatch management  
36 program in place. So it's a very low percentage of an  
37 overall impact to the runs that would have come back to  
38 an individual river system due to bycatch.

39

40 And then my final slide then is just to  
41 talk about the upper Yukon separately. And what you  
42 see in the graph, it says upper Yukon breakout in the  
43 title and what you see in the graph to the left where  
44 it says Figure 11, these are the A season and B season.  
45 So the pollock fishery operates, it's an off shore  
46 fishery, it operates in two seasons, a winter season,  
47 that's the A season, and that's primarily targeting roe  
48 -- roe fish, and then a B season, which is the summer  
49 fishery. So the A season begins January 20th and it's

50

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1 usually competed by early to mid-April. They have  
2 their own quota for that period. And then the summer  
3 season begins in mid-June, there's not a lot of fishing  
4 that occurs in June, and occurs more in July and August  
5 and sometimes into September, October, although we've  
6 been trying to provide incentives to not fish in  
7 September and October.

8

9 So what you see then in this graph, the  
10 lefthand panel that says A are the stock composition  
11 estimates that the geneticists have been providing by  
12 season as well as annually and then the stock  
13 composition estimates in the B season. And so the  
14 things that would be of most note to you would be the  
15 dark purple is the contribution from the upper Yukon,  
16 the eastern Sea, if you look to the left and the graph  
17 in 2011 you can see that there is more contribution  
18 from the upper Yukon, it's still very small.....

19

20 UNIDENTIFIED VOICE: Hello. Hello.

21

22 MS. STRAMM: .....but it's quite  
23 variable and in recent years the A season has been a  
24 lot less. And then in the B season, you don't really  
25 see much of that at all but if you look at the red,  
26 that's the contribution from coastal west Alaska,  
27 which, again, has been declining in recent years. Some  
28 of that is spacial. We know from looking at -- to the  
29 right then you see the different break outs in the  
30 areas and times in which those were taken. And what  
31 the information is starting to indicate is that as the  
32 fishery moves north and west in the Bering Sea they  
33 might run into more of the stock composition from the  
34 upper Yukon. There has been interest in breaking out  
35 the lower Yukon genetically so that the aggregate  
36 contribution from the overall Yukon River might be  
37 possible, to look at the Yukon separately, and this is  
38 with the single -- the SNIP, the single nucleotide  
39 polymorphism that they use right now to estimate the  
40 genetics.

41

42 They have also been examining Norton  
43 Sound as a possibility as something that could be  
44 broken out and so we have a standing genetic bycatch  
45 group that's been meeting on an annual basis and  
46 providing information to the Council and so these --  
47 this information has been to try to -- to tailor the  
48 genetics reporting and the investigations that are  
49 going on in order to meet some management mandates and  
50

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1 some information that would be helpful to the Council  
2 so we've been looking into, not just looking at a  
3 seasonal contribution of the stock composition  
4 estimate, but looking at it by area as well as by  
5 season. And all of that is to try to provide the  
6 Council and the fishery information to indicate what  
7 the impact of moving to a certain area in a certain  
8 time are on the possible differential impact so even  
9 though the bycatch itself is low, we're also trying to  
10 avoid differential impacts to an individual stock,  
11 particularly western Alaska stock. So we've been  
12 working as a -- as a group of scientists and management  
13 to provide these kind of tailored reports and work  
14 plans back to the Council to try to best inform  
15 management moving forward.

16

17 Madame Chair, I don't have any other  
18 slides, and that's my last slide but I'm, again, happy  
19 to answer any additional questions.

20

21 Thank you.

22

23 ACTING CHAIR PELKOLA: Thank you,  
24 Diana. That was a very -- nice report. A lot of  
25 information in there and I wish we had a hardcopy to,  
26 you know, to read and see it and follow along a little  
27 better. My phone kept cutting out there so I just  
28 appreciate it. Do we have any comments or questions  
29 for Diana at this time.

30

31 MR. HONEA: Yeah, Madame Chair. If I  
32 can, this is Don. I just had a question here, it's  
33 kind of interesting that -- that they use the upper  
34 Yukon as one of the places there and I'm just wondering  
35 is it because perhaps that's -- that's where the  
36 spawning is going on or the fish that made it up there,  
37 could you -- could you answer that.

38

39 MS. STRAMM: Sure. Through the Chair.  
40 Thanks for the question. And I should have included, I  
41 apologize, I'll try to get more information to Karen  
42 and I'll make sure that you have access to where we  
43 post all this on our website.

44

45 What I should have shown you is a map  
46 of the genetic breakout. So the genetic breakouts are  
47 -- are done because that's the stock they can  
48 differentiate between genetically currently with a high  
49 degree of certainty. And so the upper Yukon is a

50

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1 separate stock, obviously, and it genetically looks  
2 different from the middle, lower and Kuskokwim, so  
3 that's a stock that can be pulled apart genetically so  
4 that you can look at that stock separately.  
5 Unfortunately a lot of the lower -- the YK Delta stock  
6 kind of genetically bleed over so that you can't  
7 differentiate in a salmon right now with a high degree  
8 of certainty whether or not a fish was from the lower  
9 Yukon or the lower Kuskokwim and so we currently have  
10 to just run those all together into one grouping, but  
11 the intent is to try to pull apart as many individual  
12 stocks as possible so that you can look at whether or  
13 not an individual stock is being disproportionately  
14 taken in the bycatch and if it is, where in the Bering  
15 Sea that tends to aggregate in the time of the fishery  
16 to try to tailor management measures to avoid stocks,  
17 not trying -- no one's attempting to catch any of the  
18 chinook at all, so all these measures are tailored  
19 around both reducing -- any incentives to catch  
20 bycatch, coming up with tools so that the fleet can  
21 avoid the bycatch of chinook, but then also looking at  
22 what is the impact of the bycatch and is it  
23 disproportionate to any one group. We know that when  
24 the fleet fishes more in the Southern Bering Sea,  
25 Southeastern Bering Sea they run into much more of west  
26 coast and Canadian origin chinook fish.

27

28 MR. HONEA: Yeah, I.....

29

30 MS. STRAMM: So we're trying.....

31

32 MR. HONEA: So I just had a question on  
33 that because when they say upper Yukon, I'm just  
34 wondering Ft. Yukon or Eagle, close to the border, the  
35 reason why they do that because -- because soon enough  
36 you're into Canada and I thought that was on the  
37 spawning grounds, I was just wondering -- the  
38 justification, you know, why they are -- I mean where  
39 exactly are they -- you know, the territory, or area,  
40 that's all. I appreciate that, thank you.

41

42 MS. STRAMM: Sure, you're welcome.

43

44 ACTING CHAIR PELKOLA: Thank you,  
45 Diana. That was very good again. Do we have any more  
46 comments or questions.

47

48 MR. GERVAIS: Jenny, this is Tim, may I  
49 comment, please.

50

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1                   ACTING CHAIR PELKOLA: Sure.

2

3                   MR. GERVAIS: Thank you, Madame Chair.

4 This is Tim Gervais. Thank you for your presentation,  
5 Diana, really good, we always appreciate you taking  
6 time to present the work and research of the North  
7 Pacific Management Council. I had a few questions.

8

9                   When you were talking about observer  
10 coverage and having one observer on a vessel, and  
11 that's deemed to be 100 percent coverage, but isn't  
12 there situations where that observer doesn't have to --  
13 does the observer have to monitor every haul, or do they  
14 -- don't have to work when the weather's too rough, or  
15 when it's between sleeping hours?

16

17                  MS. STRAMM: Thank you. Through the  
18 Chair, thanks for the question. And I apologize if I  
19 -- we used to put 200 percent coverage on slides and  
20 that seemed to be more confusing. The important part  
21 is that every -- every haul is observed. So there's  
22 multiple observers on some vessels so that they're  
23 taking shifts, but the important part is that in order  
24 to manage this program the way it's managed right now  
25 and in order to census all of the fish, so when a  
26 vessel delivers shore side the census of the fish  
27 occurs at the processing plant under observer coverage  
28 and by an observer. And so we call it 100 percent  
29 coverage because it's 100 percent of the hauls that are  
30 being covered, the -- the intent -- and a  
31 catcher/processor, for example, of a lot of the cameras  
32 that were put into place as a result of this action is  
33 to ensure compliance so that there's no place that if  
34 salmon comes on board that either an observer or a  
35 camera can't see it. So that it eliminates any ability  
36 to not have that salmon come on board and be counted,  
37 and so that's the intent of it. So it depends on which  
38 vessel configuration you're talking about and which  
39 sector as to the role of the observer in terms of  
40 counting that versus the role of the observer in terms  
41 of ensuring that the -- the haul goes into the hulls  
42 and the cameras are ensuring that there's no point of  
43 entry where that fish can't be funneled into the hull  
44 to ensure compliance with -- yeah, it is -- it is all  
45 covered, there is more than one observer on any of  
46 these vessels.

47

48                  MR. GERVAIS: Okay. But could you,  
49 briefly, like, in less than a minute or two, cover how  
50

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1 much information and cooperation there is with Russian  
2 colleagues, maybe Chinese colleagues and how much of a  
3 factor the Russian and Asian nations, and also illegal  
4 unreported, or unregulated fishing might be affecting  
5 chinook populations?  
6

7 MS. STRAMM: Oh, I can try, and I also  
8 look to my colleagues, Ellen and Jim, if they have more  
9 to provide in science centers. You know we do have  
10 bilateral agreements in place with the Russians, that's  
11 always been -- there has been, in the past, some  
12 information sharing, that information sharing to my  
13 knowledge -- there's been surveys that have occurred,  
14 our Bering Sea survey has gone over into Russian  
15 waters, some of the surveys, the acoustic surveys,  
16 mostly in chasing pollock to try to get estimates of  
17 the pollock -- pollock stocks that have moved up into  
18 the Northwest. It depends on where political relations  
19 are with Russia as to whether or not they receive  
20 permission to continue those surveys, over the line,  
21 and collaborate with Russian colleagues. There are --  
22 there's a Donut Hole agreement, there's a  
23 manual/bilateral meeting that occurs where they discuss  
24 issues.....  
25

26 (Teleconference interference -  
27 participants not muted)  
28

29 MS. STRAMM: .....of joint interest.  
30 We always provide them with an overview of chinook and  
31 chum bycatch for that meeting that occurs. We don't  
32 always get a lot of information in return on that and  
33 so that's about all I could maybe answer, in a  
34 snapshot, I would encourage either Ellen or Jim who  
35 would know a little more about.....  
36

37 (Teleconference interference -  
38 participants not muted - static)  
39

40 MS. STRAMM: .....how that is from the  
41 scientific side, I'm more involved in working from the  
42 management side.  
43

44 MR. GERVAIS: No, that's fine, Diana.  
45 That's a fine answer. So Amendment 91, you know, put  
46 together in 2009, put into action in 2011, the intent  
47 was to minimize the prohibitive species bycatch but in  
48 my opinion, it really -- the way it came into law, the  
49 way it was written into law it was really to minimize  
50



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1 fishing restrictions on the Bering Sea trawl fleet.  
2 These rivers, western Alaska, we've had really poor  
3 chinook runs since 1998 and up until and including this  
4 year with very few years of anything above mediocre and  
5 a lot of years of not even meeting biologic escapement  
6 goals. I appreciate your work and your colleagues work  
7 and the Council's work in trying to minimize the  
8 bycatch, but, because we have, what is it now, so  
9 that's 23 years of poor chinook returns, we need to --  
10 I would like to know what ways the North Pacific  
11 Council could work with the Subsistence Councils and  
12 the other rural users of the resource to get away from  
13 -- right now, according to the Magnuson-Stevens  
14 Fishery, Conservation and Management Act, the  
15 management is supposed to follow these national  
16 standards, but we have National Standard No. 1, where  
17 it's supposed to be management to optimum yield for  
18 each fish in the United States, well, doesn't these  
19 river fisheries for chinook count as fisheries that  
20 would have some protection under that national  
21 standard, and then National Standard No. 8,  
22 communities, where the conservation requirements take  
23 into account the importance of fisheries resources to  
24 the communities -- it's just -- I'm not understanding  
25 how the Bering Sea trawl fleet and these other trawl  
26 fleets that you mentioned that also have some bycatch  
27 with them, how come they can continue to have a  
28 commercial fishery when escapement goals aren't being  
29 met, subsistence needs aren't being met, why -- why do  
30 these smaller user groups not have priority to have  
31 their -- the importance of their fisheries and the  
32 escapement goals for their fisheries met, why does it  
33 always have to be managed -- it feels to us, us as the  
34 subsistence users, that we -- it only -- the management  
35 measures is only taking place if it doesn't affect the  
36 trawl fleet too much, and I just don't understand how  
37 the national standards can be violated and even though  
38 the trawl fleet is taking measures to reduce bycatch,  
39 why do they have commercial fisheries when we can't  
40 even get biologic escapement goals met? What -- where  
41 do we need to go next to get rid of this 23 year  
42 history of -- well, not get rid of the history, but how  
43 do we break this habit of under escapement and I mean  
44 in some part it comes down to extinction, and eight  
45 year old age class of chinook on the Yukon is extinct  
46 and has been since about 2009. What can we do next to  
47 get this fishery back on its feet?

48

49 MS. STRAMM: Thank you. Through the

50

0195

1 Chair. I can provide a little bit of input on that and  
2 then I would really encourage you, and I will be sure  
3 to get the information to Karen of when salmon bycatch  
4 comes up at our April meeting, in our process, we  
5 always take public input at every agenda item, there's  
6 always public comment to the Council. There's no  
7 specific action associated with this update to the  
8 Council in April, but we take public input on actions  
9 the Council -- the -- the stakeholders feel the Council  
10 should take. I would note that as it relates to the  
11 national standards, the Magnuson-Stevens requirement  
12 are that the national standards be balanced, and so  
13 that means that some are met to greater or lesser  
14 degrees than others in any given situation. And so we  
15 often have this issue when we're discussing Federal  
16 fisheries. The important thing to remember that the  
17 requirement for the Magnuson Act is for the Federal  
18 fisheries.

19

20 (Teleconference interference -  
21 participants not muted)

22

23 MS. STRAMM: But we do not manage the  
24 in-river returns, that is solely under the State of  
25 Alaska.....

26

27 (Teleconference interference -  
28 participants not muted - coughing/throat clearing)

29

30 MS. STRAMM: .....as it relates to  
31 issues like this. It's often -- while we're responsive  
32 to all 10 national standards, we're often talking about  
33 the difficult balance between National Standard 1,  
34 which as you noted, is to meet optimum yield, again, in  
35 Federal fisheries, provide for (indiscernible - people  
36 on line) National Standard 8, which is overall impacts  
37 to communities, and National Standard 9, which is to  
38 reduce bycatch to the extend practicable. And of that  
39 there's a real play off between National Standard 1 and  
40 National Standard 9.

41

42 Salmon stocks do not fall under our  
43 Federal requirement under the Magnuson Act for National  
44 Standard 1 for optimum yield, because that optimum  
45 yield is.....

46

47 (Teleconference interference -  
48 participants not muted - coughing)

49

50

0196

1 MS. STRAMM: .....for the stocks that  
2 we manage in the Bering Sea, but it is very much at  
3 play in National Standard 9 in terms of reducing to the  
4 extent practicable. So our Council measures.....

5  
6 MR. HONEA: Madame Chair.

7  
8 MS. STRAMM: .....the -- and  
9 within.....

10  
11 MR. HONEA: Madame Chair.

12  
13 MS. STRAMM: .....realm of what -- over  
14 which we have jurisdiction. So I hope that helps but I  
15 would.....

16  
17 MR. HONEA: Madame Chair.

18  
19 MS. STRAMM: .....absolutely encourage  
20 you to write to or speak up to the Council,  
21 particularly at our next April meeting when they will  
22 be discussing salmon bycatch.

23  
24 Thanks.

25  
26 ACTING CHAIR PELKOLA: Don.

27  
28 MR. HONEA: Yeah, Madame Chair. I'm  
29 going to have to step away from the phone here for  
30 about 20 minutes, are we looking at a break here for  
31 lunch.

32  
33 ACTING CHAIR PELKOLA: Karen.

34  
35 MS. DEATHERAGE: Thank you, Madame  
36 Chair. Through the Chair. Member Honea, I have  
37 recommended that we work through lunch because we only  
38 have one more presentation after this and this way we  
39 -- the Council can elect to adjourn the meeting. The  
40 other presenters are standing by for the next  
41 presentation. So it is up to the Council, of course,  
42 whether or not they want a lunch break but that would  
43 be my recommendation.

44  
45 I also want to remind folks, once,  
46 again, if you could to please mute your phones if  
47 you're not speaking, star six will mute your phone, we  
48 are getting a lot of background noise. But again.....

49  
50

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1 MR. HONEA: Madame Chair.

2

3 MS. DEATHERAGE: .....I will.....

4

5 MR. HONEA: Madame Chair.

6

7 MS. DEATHERAGE: .....turn it over to  
8 the Chair to make that decision with the Council.

9

10 Thank you.

11

12 MR. HONEA: Yeah, Madame Chair, this is  
13 Don. I'm going to step away here about 15 minutes.

14

15 ACTING CHAIR PELKOLA: Okay.

16

17 MR. HONEA: I'll call back in. Thank  
18 you.

19

20 ACTING CHAIR PELKOLA: Okay. Okay,  
21 thank you, Diana, that was very good. Do we have any  
22 more comments or.....

23

24 MR. MATHEWS: Yes, Madame Chair.

25

26 ACTING CHAIR PELKOLA: Yes.

27

28 MR. MATHEWS: Madame Chair, this is  
29 Vince Mathews. I would just ask the Coordinator, and I  
30 have two questions for Diana. On Page 24, the title is  
31 measures to minimize salmon.

32

33 ACTING CHAIR PELKOLA: Yes.

34

35 MR. MATHEWS: Okay. My first question  
36 is that I just need to clarify, she mentioned that  
37 salmon escape panels are mandatory, is that the correct  
38 current situation?

39

40 MS. STRAMM: Hi. Through the Chair.  
41 Hi, Vince, it's nice to hear from you. So the way that  
42 -- from a regulatory standpoint, we had to have the  
43 pollock fishery cooperative under their individual plan  
44 agreement make those excluders mandatory within their  
45 own structure. There's other impediments to making it  
46 a regulatory requirement, so they are a requirement of  
47 the incentive plan agreements and so those individual  
48 sectors have put into place measures to ensure that  
49 their vessels all have and use salmon -- we call them

50

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1 salmon excluders, but that they have and use salmon  
2 excluders. You know there are some provisions for when  
3 they can't, you know, they ripped their net or  
4 something like that, but -- but the general sense of it  
5 is that each of these sector programs ensure that their  
6 vessels are using them at all times, so, yes.

7

8 MR. MATHEWS: Okay, then just a short  
9 followup on that is, is there any data on the  
10 effectiveness of those panels, because originally there  
11 was a lot of debate on how effective they are?

12

13 MS. STRAMM: Yeah, thanks. Through the  
14 Chair. Vince, there is a lot from the experiments that  
15 the industry has been doing over the years but they've  
16 been working on these for years and years and what they  
17 use is a -- in their experimental phase, so not when  
18 they're being used in the fishery right now, but  
19 they've gone through multiple iterations of  
20 experimental phases and they put a recoverment, so  
21 outside of the excluder panel where the chinook can get  
22 out, they put a recovery net so that they can count the  
23 fish that have gotten out in comparison to the fish  
24 that drop back into the (indiscernible) and so over the  
25 years the industry has reported back on their findings  
26 and, you know, some of the problems they ran into in  
27 the initial stages of development is that either the --  
28 the configuration of the panel wasn't ideal for the  
29 chinook getting out or they were also bleeding pollock  
30 into the recovery net. So I can look it up and get  
31 back to you but my recollection of the last time with  
32 the new excluder is that it's about 30 percent of the  
33 chinook are able to get out that way and so that's how  
34 they test it, is when they test it with a recovery net.  
35 They've gone through multiple different iterations of  
36 it and that's also some of the reason why we try to  
37 make regulations general because we don't want to  
38 restrict innovation. So we don't want to mandate what  
39 kind of excluder they use but that they do use one  
40 because the innovation on improving the efficacy of  
41 those excluders is a constantly moving target and  
42 they're trying to get the best excluder they can  
43 possibly use and that might mean that on an annual  
44 basis they keep testing and try to come up with a  
45 better one. But everyone is using them now. Some are  
46 more effective than others depending on which version  
47 of the salmon excluder that that particular vessel has  
48 at their ability to use.

49

50

0199

1 MR. MATHEWS: I appreciate that. And  
2 then finally, and there may be other Council members  
3 that want to bring it up, but on that page it says,  
4 donation to food banks and the Western Interior  
5 Regional Advisory Council had some pointed requests on  
6 the food banks, so I don't know if at this meeting it'd  
7 be appropriate to give an overview on that, but at some  
8 point I think there needs to be an update on the status  
9 of the salmon bycatch as it relates to food banks.

10

11 Thanks.

12

13 MS. STRAMM: Sure. Through the Chair.  
14 Thanks for that. And I wish now that I had augmented  
15 this presentation to include that. We're really  
16 fortunate, in that Jim Harmon of Sea Share provides us  
17 an update on an annual basis and, again, he will  
18 provide it in April to the Council on their efforts  
19 with the Sea Share so that -- Sea Share is the one food  
20 donation program that the -- all the chinook bycatch,  
21 everything is funneled through Sea Share because  
22 they're the one recipient of the prohibited species  
23 donation program. They're the one that's authorized to  
24 do it. So they have been working, and this is has  
25 really been an effort on a lot of these RAC meetings  
26 since the inception of Amendment 91 when all of the --  
27 there was a lot of notice that the food donations were  
28 going to the Puget Sound area and I -- we really  
29 credit all of you guys and all the stakeholders for  
30 calling the Council's attention to that and increasing  
31 the pressure on the industry to help work with Sea  
32 Share. They have certain provisions they have to have  
33 in place, there has to be a distribution site and that  
34 site has to be refrigerated or frozen. And so -- and  
35 that the industry needs to pay to bring the fish back  
36 to Alaska if it's landed in, say, Seattle, from a  
37 catcher/processor. So over the last 10 years the  
38 industry has worked really hard with Sea Share and Sea  
39 Share has worked really hard with a whole lot of  
40 partners to get distribution centers in a lot of  
41 Interior Alaska communities or Coastal Alaska  
42 communities. They've been working with the Coast  
43 Guard, who's donated C130s to fly the fish up there,  
44 they've gone out to St. Paul. I can give you a list of  
45 the Interior Alaska communities that Sea Share has been  
46 getting fish out to. They've worked with local  
47 partners, which is Kawerak to try to get to smaller  
48 villages from a hub where they can have a distribution  
49 center. And so we have really been working -- they've

50

0200

1 been working very hard with the industry on that. They  
2 will provide an update in April and it's not -- if you  
3 aren't seeing the results of that in your region, by  
4 all means, please do write to the Council because Sea  
5 Share is trying to work really hard to get a fish in a  
6 way that they can get it to a distribution center to  
7 then be distributed within Interior Alaska,  
8 understanding that that's absolutely no -- that's not  
9 sufficient for mitigating bycatch but when the food is  
10 already at the food donation banks, we're trying to  
11 work with them to get it back to Interior Alaska.

12

13 I hope that helps.

14

15 MR. MATHEWS: Well, thank you. That  
16 information would be up to, if the Council would like  
17 to get that information. And I appreciate your  
18 presentation, so thanks again.

19

20 ACTING CHAIR PELKOLA: Okay, thank you.  
21 Thanks again Diana. Any more questions or comments.

22

23 (No comments)

24

25 ACTING CHAIR PELKOLA: Thank you, very  
26 much. It was a very, very good report. I'm sure  
27 you'll be at our meeting reporting back later in the  
28 future and I just thank you again.

29

30 MS. STRAMM: Thank you, Madame Chair.  
31 And I'm always happy to report back to you all. My  
32 contact info is on the first slide so if you have other  
33 questions feel free to contact me directly, too.

34

35 Thank you.

36

37 ACTING CHAIR PELKOLA: Okay, thanks  
38 again. Okay, Karen, what's our final report?

39

40 MS. DEATHERAGE: Thank you, Madame  
41 Chair. We have the final report, let me get that title  
42 here if you give me a second. Let me check and see if  
43 Sabrina and Jim are on the phone right now.

44

45 MS. GARCIA: Hi, Karen. This is  
46 Sabrina, I'm on the line.

47

48 MS. DEATHERAGE: Okay. And you're just  
49 going to be giving this today, correct, or will Jim be

50

0201

1 joining you?

2

3 MS. GARCIA: Yep, Jim should be on the  
4 line and he will be giving the first half of the  
5 presentation and then I'll jump in and do the second  
6 half.

7

8 MS. DEATHERAGE: Okay, that sounds  
9 good. And my question for the Council, Madame Chair,  
10 is whether or not we want to take, and it would be  
11 agreeable with the presenters, because I know they have  
12 time constraints, if we'd like to take a 10 minute  
13 break before the next presentation or if you'd like to  
14 go ahead and proceed with the presentation entitled  
15 Northern Bering Sea Juvenile Salmon Ecology.

16

17 Thank you, Madame Chair.

18

19 ACTING CHAIR PELKOLA: Anybody want a  
20 break or you're fine. Are you fine, I'm fine.

21

22 MR. SIMON: I'm fine.

23

24 ACTING CHAIR PELKOLA: Okay, Pollock's  
25 fine, and Don is on break.

26

27 (Laughter)

28

29 ACTING CHAIR PELKOLA: How about you  
30 Goodwin, you're fine?

31

32 (No comments)

33

34 ACTING CHAIR PELKOLA: I guess maybe  
35 Goodwin is on mute but I think we're fine, we'll just  
36 go ahead with the report.

37

38 MS. DEATHERAGE: Thank you, Madame  
39 Chair. This is Karen Deatherage. Sabrina and Jim, you  
40 are on, thank you so much.

41

42 MS. GARCIA: Hi, Karen. I'm just  
43 checking in with Jim to see if he's on the line. He  
44 was earlier, do you know how -- is it star six to  
45 unmute your line?

46

47 MS. DEATHERAGE: Through the Chair.  
48 Yes, Sabrina, it is star six to unmute the line and  
49 while you're doing that I want to let everybody know

50



0202

1 that we did email this presentation to everybody and a  
2 hardcopy was sent to the Council. It is a paper and  
3 it's entitled Murphy-Garcia Juvenile Salmon WIRAC  
4 meeting. There are slides in it so I'm going to be  
5 asking the presenters again to please cite the name of  
6 the slide versus the number because a lot of folks have  
7 printed copies and there are no -- there are no numbers  
8 on the slides.

9

10 Thank you, very much.

11

12 MS. GARCIA: Okay, well, I think -- I  
13 don't know where Jim is, hopefully he will jump on the  
14 call but until he does I will present for the both of  
15 us, if that's okay.

16

17 ACTING CHAIR PELKOLA: Go right ahead.

18

19 MS. GARCIA: Okay, thank you. Okay,  
20 good afternoon everyone. My name is Sabrina Garcia and  
21 I am a biologist with the Alaska Department of Fish and  
22 Game based in Anchorage, Alaska. And I'm going to be  
23 giving this presentation hopefully with Jim Murphy, he  
24 works with NOAA Fisheries in Juneau, and he's actually  
25 been leading these juvenile salmon surveys in the  
26 Eastern Bering Sea for a few years now. And the focus  
27 of these surveys in the northern Bering Sea have been  
28 mostly on Yukon River chinook salmon. So that's what  
29 we're mostly going to be presenting on today and we'll  
30 also talk a little bit about chum salmon. Hopefully  
31 you all have copies of the presentation and I will read  
32 the title of each slide so that, hopefully, everybody  
33 can follow along. And if, at any time, you guys have  
34 questions please feel free to interrupt me. I'd rather  
35 be interrupted and make sure that everyone can follow  
36 along and understand the material so feel free to jump  
37 on in.

38

39 MR. MURPHY: Hello. Hello, this is  
40 Jim, can you hear me?

41

42 MS. GARCIA: Oh, hey, Jim.

43

44 MR. MURPHY: Hi. Well, I've had all  
45 kinds of problems trying to connect. First I was not  
46 muted and then I couldn't get the mute off, so I  
47 redialed back in so hopefully you guys are ready for  
48 me. I apologize.

49

50

0203

1 MS. GARCIA: Yes. That's okay.

2

3 MR. MURPHY: I apologize to everyone.

4

5 MS. GARCIA: I just gave our  
6 introduction but if you want to introduce yourself and  
7 jump on it and I'll let you take over.

8

9 MR. MURPHY: Okay. So everyone's got  
10 oriented to what page in the booklet that we're on.

11

12 MS. DEATHERAGE: Madame Chair.

13

14 MR. MURPHY: Okay.

15

16 MS. DEATHERAGE: This is Karen  
17 Deatherage. And, Jim, welcome aboard. And everybody  
18 does have this presentation, either by hardcopy or they  
19 were sent it via email. And what we're asking, if you  
20 could, is because the hardcopies don't have page  
21 numbers or slide numbers, if you could just name the  
22 title of the slide so that people can follow along.

23

24 Thank you.

25

26 MR. MURPHY: Okay, I'll do that. Yes.  
27 Yes. Well, I'll just get started here. So the first  
28 page is our title page and Sabrina introduced this  
29 already. We'll be talking about some of the research  
30 that we do in the Northern Bering Sea, which a large  
31 percentage of the salmon in the North Bering Sea are  
32 Yukon origin.

33

34 And just a little bit of background. I  
35 work for the Alaska Fishery Science Center, so I work  
36 for National Marine Fishery Service here in Juneau,  
37 Alaska. And I've been working on salmon in the ocean  
38 and Eastern Bering Sea for probably more years than I'd  
39 like to admit but it's quite a few years. It's been --  
40 my primary focus has been in the Northern Bering Sea  
41 and on the Yukon River salmon and chinook salmon, in  
42 particular. Sabrina works for Fish and Game. She's  
43 been a marine research biologist for the AYK region and  
44 she works in both the Northern Bering and Southern  
45 Bering Sea.

46

47 So we'll move on.

48

49 This will be, just an introductory

50

0204

1 slide here, the second slide, it's just a title slide,  
2 Northern Bering Sea surveys. You can see some of the  
3 guys working the trawl gear. So we use surface trawls  
4 to capture salmon. And we conduct the research on  
5 large vessels. So we charter large commercial fishing  
6 vessels. So the vessel we use right now is about 180  
7 foot size trawler called the Northwest Explorer.

8  
9 So I'm going to go on to the third  
10 page, this has a title juvenile salmon research in the  
11 Northern Bering Sea and it just kind of highlights the  
12 topics that we tend to focus on in our research  
13 program. It can be broken up into two categories. One  
14 is the juvenile salmon, which includes our work on  
15 distribution and abundance. We measure aspects of the  
16 juvenile habitat, in this case we're looking at mixed  
17 layer depths in the North Bering Sea. And then we  
18 estimate the genetic origin of juveniles. So the  
19 genetic origin of juveniles allow us to really connect  
20 to the specific systems and the rivers and the stocks  
21 that are present in the North Bering Sea. We also do a  
22 fair amount of work on juvenile ecology. The ecology  
23 work is really important because it helps us understand  
24 abundance. If you have a lot of fish but they're doing  
25 very poorly that's not as good as having, you know, an  
26 average number of fish and being in really healthy  
27 condition. So we look at size and age and growth. We  
28 look at diets, feeding ecology and we look at their  
29 overall health, their condition, just their nutritional  
30 status. And so those are all important elements to the  
31 research surveys that we conduct.

32  
33 I'm going to go on to the fourth page,  
34 this has a title of surface trawl. This just shows a  
35 picture of what these trawlers look like. They're  
36 towed behind -- there are two warps, two main warps  
37 that come behind the vessel and they're attached to  
38 these large doors that spread the trawl open, and then  
39 we'll have chains on the bottom of the opening of the  
40 net and we put location buoys on the top. So we sample  
41 typically the upper 20 meters, so upper 60 feet of the  
42 water column so this is a fairly big trawl. And their  
43 width is 150 meters, so that'd be about 150 feet  
44 across.

45  
46 So I'm going to go on to the next  
47 slide, which is the -- the title is juvenile chinook  
48 salmon distribution in the Northern Bering Sea and, of  
49 course, this figure here on the left it shows where the  
50

0205

1 typical distributions of juvenile chinook are. And  
2 this is during our survey which typically happens  
3 during the month of September. And the key thing is  
4 that the Northern Bering Sea is, is very shallow  
5 surface system and in fact the juvenile chinook tend to  
6 be in water depths shallower than 50 meters, but that  
7 could be like 250 kilometers from shore so it's a very  
8 shallow habitat. It works very effectively, surface  
9 trawl gear works very effectively in these shallow  
10 habitats because we're sampling most of the water  
11 column with this gear.

12  
13 So I'm going to go on to the sixth  
14 slide, and this slide has a title of juvenile chinook  
15 salmon stock composition estimates, and this is an  
16 important slide and there's a lot of information here.  
17 So there are four groups of -- stock groups of chinook  
18 salmon that we measure. On the upper left it's the  
19 lower Yukon, so these are -- those are just the lower  
20 Yukon stock, Unalakleet has been a very important lower  
21 Yukon stock. And then the next figure to the right is  
22 the middle Yukon, and so those stocks have been  
23 relatively stable over time and so we see -- they don't  
24 make a large percentage of the -- especially the lower  
25 Yukon has a fairly low percentage but they are  
26 important stocks. And the lower and the middle Yukon  
27 stocks are the U.S. stocks of the Yukon River. And  
28 then we have another group which is the other western  
29 Alaska stocks. So these would be stocks other than the  
30 Yukon so that's going to include Norton Sound, but also  
31 includes stocks like Kuskokwim and Nushagak and other  
32 stocks within the Southern Bering Sea. And one of the  
33 things that's really important we're seeing in 2019, in  
34 particular, this last year, we saw a fairly large  
35 increase in the non-Yukon portion. And I think that's  
36 just really because we're seeing -- with these warming  
37 temperatures we're seeing more fish move from the  
38 Southern Bering Sea to the North Bering Sea. And so  
39 some of that is why we're seeing the upper Yukon,  
40 which these are stocks that are spawning in Canada, so  
41 this would be the Yukon priorities, primarily. And you  
42 can see that the proportion of that upper Yukon stock  
43 group is declining particularly in the last three  
44 years. And the lowest percentage of the Canadian  
45 origin stock that we've seen was in 2019. But we're  
46 not clearly seeing that decline necessarily in the U.S.  
47 stock in the middle Yukon.

48  
49 So we'll go on to the next slide and  
50

0206

1 this slide is titled, total Yukon River chinook salmon  
2 abundance in the Northern Bering Sea. And here this is  
3 basically we take our trawl catch estimates of  
4 abundance and we multiply that against the stock  
5 proportion that are from the Yukon River to come up  
6 with this abundance estimate, so it's a stock specific  
7 abundance estimate. And the thing that's quite  
8 concerning is, is that in the last year that we ran  
9 survey, 2019, is when we saw really low abundance of  
10 juveniles since we started the survey.

11  
12 And I'll go on to the next slide and  
13 this slide is titled, chinook salmon run projections.  
14 And one of the reasons why it's particularly important  
15 to pay attention to juvenile abundance is because  
16 there's a fairly good relationship between the numbers  
17 of juveniles that we see in the North Bering Sea and  
18 what the future returns will be three to four years in  
19 the future. So this is a fairly simple model that  
20 relates juvenile adult abundance that explains much of  
21 the variation that we see from year to year. And it  
22 also means that because juvenile abundance is declining  
23 in the last three years, and particularly in 2019, that  
24 our projections are for a continued decline in  
25 abundance of Yukon River chinook salmon, and some of  
26 our -- the lowest projected abundance that we've  
27 produced from these surveys is in 2022. So we're  
28 expecting runs to decline in 2021, and in 2022. And  
29 part of that is because of the juvenile abundance is  
30 declining but also because the proportion of the total  
31 -- the total Yukon proportion is declining as well and  
32 in those areas.

33  
34 MR. HONEA: Madame Chair.

35  
36 ACTING CHAIR PELKOLA: Yes.

37  
38 MR. HONEA: Yeah, Jenny, this is Don.  
39 I just rejoined here and if I could ask, Karen, are we  
40 -- is he discussing one of the -- the things that she  
41 sent to us yesterday, I'd like to be able to pull it up  
42 if it is.

43  
44 ACTING CHAIR PELKOLA: It's in the back  
45 of your book there, Don. It's in the book.

46  
47 MR. HONEA: It's in the back of the  
48 book?

49  
50

0207

1                   ACTING CHAIR PELKOLA: Yes.

2

3                   MR. HONEA: Okay, great, if you could  
4 give me a page number or something I'll just go ahead  
5 and -- sorry to disrupt.

6

7                   MS. DEATHERAGE: Madame Chair, this is  
8 Karen. Don it's an extra document that was sent along  
9 with your meeting book.

10

11                   MR. HONEA: Okay.

12

13                   ACTING CHAIR PELKOLA: It's in the book  
14 Karen.

15

16                   MS. DEATHERAGE: It is in the book?

17

18                   ACTING CHAIR PELKOLA: Mine is in the  
19 book, yeah.

20

21                   MS. DEATHERAGE: Oh, they must have  
22 added it because it wasn't -- okay, because it's not on  
23 the website. And, Don, it's entitled -- the document  
24 is -- just a minute -- I have 27 different things here  
25 -- Northern Bering Sea Juvenile Salmon Ecology and it  
26 has a NOAA and Alaska Department of Fish and Game logo  
27 on the front page.

28

29                   Thank you, Madame Chair.

30

31                   MR. HONEA: Thank you.

32

33                   ACTING CHAIR PELKOLA: Okay, go ahead,  
34 Jim.

35

36                   MR. MURPHY: Okay. If -- so did Don  
37 need to find the slide before I start, shall we.....

38

39                   MR. HONEA: No, that's okay, I will  
40 eventually find it.

41

42                   MR. MURPHY: Okay.

43

44                   MR. HONEA: Just go ahead and carry on.

45

46                   MR. MURPHY: Okay. Well, so that --  
47 we're coming up with especially from the juvenile data  
48 in the -- and it actually has been one of the more  
49 accurate projected -- the most -- one of the more

50

0208

1 accurate ways for us to participate.....

2

3 (Teleconference interference -  
4 participants not muted - paper shuffling)

5

6 MR. MURPHY: .....in these juvenile  
7 abundance estimates. And so just based on the  
8 information we've had in the past is we have a fairly  
9 good degree of confidence that this is the trajectory  
10 that we're expecting over the next couple of years.  
11 But I mean things could change. There is some other  
12 work that we're doing on diets and condition which also  
13 are concerning and Sabrina will talk about those. So  
14 there's nothing that can really maybe balance this, if  
15 anything, it could be worse than what we're seeing  
16 based on juvenile abundance alone.

17

18 So now I'm going to switch to the next  
19 slide, the 10th slide in this presentation, the 10th  
20 page and this is titled juvenile pink salmon  
21 distribution and abundance. And the thing I want to  
22 point out is that this problem we're seeing with  
23 chinook salmon is not the same across other species of  
24 salmon, in fact, we're seeing a record abundance levels  
25 for species like pinks and as you can see here this is  
26 the abundance index for pink salmon and it's the type  
27 of high abundance that we've seen, in 2019 it's the  
28 second highest abundance we've seen since we started  
29 the surveys.

30

31 And, again, I'll switch to the next  
32 slide which has pink salmon outlook, and it's just some  
33 text. But the main thing is the figure here that shows  
34 that there actually is a fairly good relationship  
35 between the juvenile abundance of pink salmon and the  
36 numbers of adults returning to the rivers. So that  
37 also is saying that we're -- and, you know, and we did  
38 project a fairly large run of pink salmon this year and  
39 that, in fact, was the case.

40

41 (Teleconference interference -  
42 participants not muted - paper shuffling)

43

44 MR. MURPHY: So pink salmon are  
45 different. They only spend one year in the ocean and  
46 they come back whereas chinook and chum will spend two  
47 to four years in the ocean.

48

49 So I am going to switch things over to

50

0209

1 Sabrina and let her talk about some of the chum salmon  
2 work and some of the ecology work that we've been doing  
3 in the North Bering Sea.

4  
5 MS. GARCIA: Thanks, Jim. Okay,  
6 everybody should be on the slide titled juvenile chum  
7 salmon stock composition. And one of the things that  
8 we're starting to do -- Jim just presented some of the  
9 chinook salmon abundance work and some of that  
10 forecasting work that we're doing with chinook salmon  
11 and what I'm presenting here is the first step to doing  
12 that same work but for juvenile chum salmon.

13  
14 So what I'm showing here is, you know,  
15 one of the pieces of the puzzle. The first is figuring  
16 out what stocks of chum salmon are we catching in our  
17 Northern Bering Sea surveys. So we've been doing these  
18 surveys since 2003 up until 2019. And previously we  
19 had done genetics on the juvenile chum salmon from 2003  
20 to 2007, and just recently we included chum salmon from  
21 2009 to 2019. So as of right now we have genetic stock  
22 data for all years of the survey on these juvenile chum  
23 salmon. And so what I'm showing in this figure on the  
24 right is what -- what we did is we split up the  
25 Southern Bering Sea and the Northern Bering Sea into  
26 three areas. So the first area -- and those areas are  
27 shown by those black lines that run across the figure.  
28 So we looked at between 58.5 degrees north up until 60  
29 degrees north so that's a little bit of the Southern  
30 Bering Sea, and then from 60 degrees north to about 63  
31 degrees north and then the third group is anything  
32 north of 63 degrees north. And those pies just show  
33 the proportion of each stock group for each of those  
34 three groups. So the one that I'm going to focus on  
35 today is that yellow pie, that upper Yukon, are fall  
36 chum salmon. So you can see that the piece of the pie  
37 that's made by that yellow group, by the fall chum  
38 group, it -- the biggest proportion is in that lowest  
39 latitude group, so between 58.5 degrees north to about  
40 60 degrees north. And then you can see that the  
41 proportion of fall chum salmon decreases as you move  
42 north. And so the reason I'm showing you this is  
43 because for us to create these juvenile abundance  
44 estimates we need to know where these chum salmon are  
45 and what rivers they came from.

46  
47 So if you'd go to your next slide that  
48 should be called juvenile fall chum salmon index.

49  
50



0210

1                   So similar to what Jim presented with  
2 chinook and with pink salmon, these are very  
3 preliminary estimates of our fall chum salmon index  
4 based on our catches from the Northern Bering Sea  
5 survey. So we get our catches from the Northern Bering  
6 Sea survey, we also have the genetic information that I  
7 just showed in the previous slide, and we can calculate  
8 a juvenile chum salmon abundance. So on the bottom of  
9 the figure you can see the year so it should start in  
10 2003, the first year of our survey and go through 2019,  
11 and you can see that 2008 doesn't have a grey bar and  
12 that's because there was no survey in 2008. And that  
13 black dashed line that runs across the figure, that's  
14 just the average. So you can see that from 2003 to  
15 2019 we had years of abundance that were below average  
16 and we had years of abundance that were above average.  
17 But one of the things that I wanted to point out was  
18 that -- is the 2017 year. And if you can see the 2017  
19 bar, so our estimate of the juvenile fall chum salmon  
20 in that year was below average. So it's below that  
21 black dashed line. And our chum salmon, when we catch  
22 them in the survey they're age one, they're one year  
23 olds, they've spent one year in the gravel and then  
24 they immediately leave the rivers and go to the ocean.  
25 So when we catch them in our surveys they're one year  
26 olds and we expect them to come back to their rivers  
27 either three years later as four year olds, or four  
28 years later as five year olds. And one of the things  
29 that we heard from this past summer was that chum runs  
30 across Western Alaska were low, and not only were they  
31 low but they had really low age four chum salmon. And  
32 now those 2017 chum salmon, so those below average  
33 juvenile chum salmon, they would have come back to the  
34 rivers as four year olds in 2020. So this tells us  
35 that we might be able to use the juvenile chum salmon  
36 abundance from the Northern Bering Sea to give us an  
37 indication of what future chum salmon runs will be.  
38 And so while 2017 was below average, you can see that  
39 2018 and especially 2019 were above average and 2019  
40 was much higher than average. So we're hoping that  
41 those two years are telling us that we might have some  
42 better runs in the future.

43

44                   So now I'll turn to juvenile fall chum  
45 salmon to adult return. So what I did is I just show  
46 -- in the previous slide I just showed you the juvenile  
47 fall chum salmon abundance and that's on the bottom of  
48 this figure, and then on the left side of the figure  
49 are the adult fall chum salmon. And basically what you  
50

0211

1 are seeing is this, you know, strong positive  
2 relationship between the number of juvenile chum salmon  
3 that we see in the survey and the number of adults that  
4 return from those juvenile years. And so what this  
5 tells us is that typically when we see high numbers of  
6 juvenile chum salmon in the Northern Bering Sea survey,  
7 we expect to see larger returns of adult chum salmon  
8 from those juvenile years.

9

10 And now you should turn to the next  
11 slide, it's just called juvenile chum salmon. And  
12 these are just -- these are next steps.

13

14 So what I've showed you here today  
15 these are, you know, hot off the press model outputs so  
16 we still have a little bit of work to do. We really  
17 want to pay attention to some of the genetics and make  
18 sure that those genetic results accurately reflect what  
19 we're catching in the survey. And we also want to make  
20 sure that we're calculating the abundance in the best  
21 way possible. So we're still working on this model,  
22 so, you know, if I present it to you again next year it  
23 might look a little bit differently than what I just  
24 showed you now. And like Jim mentioned, while these  
25 abundance estimates, and these forecasting tools are  
26 really important, we also want to continue to study  
27 aspects of juvenile chum salmon, early marine ecology.  
28 So those are things like growth and diet and energetic  
29 density and specifically how do those things -- how are  
30 those things affected by increasing temperatures.

31

32 So if you turn to your next slide it  
33 should be titled early marine ecology of chinook  
34 salmon. And so this is just to look at some of the  
35 early marine ecology work that Jim mentioned and that I  
36 just mentioned so one of the things that we look at on  
37 the survey is our.....

38

39 (Teleconference interference -  
40 participants not muted - paper shuffling/coughing)

41

42 MS. GARCIA: .....the diets of these  
43 juvenile chinook salmon. So that's what I'm showing  
44 here. I know it's a busy figure but I'll walk you  
45 through it so that you know what you're looking at. So  
46 this -- on the bottom is the year of the survey so  
47 right now I'm just showing data from 2004 to 2017, and  
48 within each of those bars are the different prey items  
49 that we're looking at. So starting at the top we're

50

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1 looking at sandlance in those grey and white boxes and  
2 then walleye pollock in that grey box, capelin and  
3 black, other fish in the dots, those striped patterns  
4 are decapods which are larval shrimp and crab and then  
5 those light grey bars at the bottom are other  
6 invertebrates, so those are things like squid and other  
7 types of zooplankton. So based on the diet work that  
8 we've done on juvenile chinook salmon in the Bering  
9 Sea, what we've seen is that juvenile chinook salmon  
10 mostly eat fish but they also eat crab and other small  
11 invertebrates. And one of the things that we've looked  
12 at is we looked at how the diet changes when we've  
13 looked at warm years in the Bering Sea compared to cold  
14 years in the Bering Sea. So hopefully your packets are  
15 in color and you can see that I've put some red boxes  
16 around the years 2004 and 2005, and then again in 2014  
17 through 2017. So those are the years that we typically  
18 consider warm years in the Bering Sea and if I had 2018  
19 and 2019 data those would also be considered warm  
20 years. And then those -- that -- the years 2006 to  
21 2013, those are our cold years. And, basically what we  
22 see is that generally chinook salmon still eat fish  
23 between warm and cold years but the primary species  
24 that they eat shift with temperature. So in warmer  
25 years we typically see juvenile chinook salmon eating  
26 higher proportions of sandlance and crab and then in  
27 cold years they typically eat higher proportions of  
28 capelin.

29  
30 If you switch to the next slide, it's  
31 called juvenile chinook salmon stomach fullness 2003 to  
32 2017. So one of the other things that we've noticed in  
33 warm years is that typically juvenile salmon tend to  
34 have less food in their stomach when the waters are  
35 warmer. So in this figure on the bottom is the average  
36 temperature in celsius, so it goes from 7.5 degrees to  
37 10.5 so as you move from left to right it gets warmer.  
38 And then on the left is a measure of how full chinook  
39 salmon stomachs are. So from the bottom it's lower  
40 stomach fullness and as you move to the top it's higher  
41 fullness, so more food in their stomachs towards the  
42 top. So you can see that in colder temperatures, so  
43 that's 7.5 degree chinook salmon have more food in  
44 their stomachs and that line is showing a decrease in  
45 the amount of food in their stomach as waters get  
46 warmer.

47  
48 Now, if you switch to the next slide,  
49 juvenile chinook salmon energetic 2003 to 2019. So  
50

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1 this is another aspect of their life history that we're  
2 looking at. So I just mentioned diets, and one of the  
3 other things that we look at is energetic condition, or  
4 energy density, and energy density is just a measure of  
5 how much energy is stored in the animal's body. So for  
6 salmon, specifically, higher energy especially in the  
7 fall time, which is when we're conducting these  
8 surveys, higher energy generally means that they have a  
9 higher chance of surviving the upcoming winter. So  
10 what I'm showing here is, again, the temperature is on  
11 the bottom so we're going from 7 degrees up to 11  
12 degrees and then on the left is just a measure of their  
13 -- how much energy they have stored. So with lower  
14 energy towards the bottom of the left axis and then as  
15 we move up energy density or how much energy they have  
16 stored is increasing. And you can see if we just  
17 follow that black line that's through the center of the  
18 figure, you can see that generally as the water  
19 temperature increases, the energy density also  
20 increases. But you'll notice that there's ones --  
21 after about 10.5 degrees that line starts to dip down.  
22 And you can see that there's one point, so this is from  
23 our recent year, that's 2019, that has that red arrow,  
24 the energy density of our juvenile -- the average  
25 energy density for the juvenile chinook salmon in that  
26 year was lower. So while warm temperatures might be  
27 good it means that for energy density or for storing  
28 energy it seems that it's only good up to a certain  
29 point and when it gets too warm they're not able to  
30 store as much energy. And I just mentioned that that  
31 was at 2019 year so we need more years of data to see  
32 if this is something that we continued to see.

33  
34 And now is you'll switch to the last  
35 slide called Northern Bering Sea summary. So we've  
36 presented a lot of information so we kind of tried to  
37 capture the main takeaway messages here and summarized  
38 it by species. So starting with chinook salmon, we've  
39 seen that the abundance of juvenile chinook salmon has  
40 declined in the Northern Bering Sea since 2017 and it's  
41 contributing to a declining outlook for Yukon River  
42 chinook salmon through at least 2022. And as Jim  
43 mentioned, that's because we're seeing both a decline  
44 in the abundance of juvenile chinook salmon, but we're  
45 also seeing a decline in the proportion of Yukon River  
46 stocks in the juvenile chinook that we catch. And  
47 we've also noticed that warming climate in the Northern  
48 Bering Sea is altering aspects of the early marine  
49 ecology of juvenile chinook salmon, so also as Jim  
50

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1 mentioned earlier, we're seeing these lower proportions  
2 of Yukon River stock in our juvenile chinook salmon  
3 catch, and higher proportion of stocks from what we  
4 expect are the Southern Bering Sea, so stocks of the  
5 Kuskokwim and Bristol Bay. And we believe that these  
6 Southern Bering stocks are moving into the Northern  
7 Bering Sea and into our survey area during these warm  
8 years in the Bering Sea. I just showed you the stomach  
9 fullness of juvenile chinook salmon, so how much food  
10 they have in their stomach when we catch them is  
11 reduced in warm years and we believe that that's  
12 probably due to the lower abundance of fish prey is  
13 what juvenile chinook salmon are typically eating. And  
14 I also showed that the energetic condition, or much  
15 energy these fish have stored in preparation for their  
16 first winter in the ocean is declined with the warm  
17 temperatures in 2019. So it increased up until about,  
18 you know, 10.5 degrees, and then with the really warm  
19 waters that we saw in 2019 we did see that energy  
20 density decline.

21

22 Moving on to chum salmon. They reached  
23 record high abundance levels in our survey in both 2018  
24 and 2019 and this is expected to contribute to improved  
25 run sizes over the next few years. The juvenile model  
26 that I just presented are still in progress but we're  
27 feeling hopeful with some other results that we got and  
28 we're going to continue to develop these models over  
29 the next few months.

30

31 And, finally, moving on to pink salmon,  
32 Jim showed that their juvenile and adult abundance has  
33 increased with warming climate conditions and we expect  
34 that their production will continue to increase with  
35 warming temperatures.

36

37 And the last slide of our presentation  
38 just has Jim and my email address. If you think of a  
39 question that you weren't able to ask while we were on  
40 the call, please feel free to email us, and there's  
41 also a link to a FaceBook page. We do update that  
42 FaceBook page pretty regularly with some of the results  
43 from the Northern Bering Sea work that we just  
44 presented today as well as work from the Southern  
45 Bering Sea so if you're on FaceBook, feel free to  
46 follow us and hopefully you can keep track of this  
47 research.

48

49 Thank you.

50

0215

1                   ACTING CHAIR PELKOLA: Thank you Jim  
2 and Sabrina. That was very, very good. Do we have any  
3 comments or questions at this time.  
4

5                   MR. HONEA: Yeah, Madame Chair, I have  
6 a couple of questions for Sabrina. If she could get  
7 the chart of the juvenile fall chum salmon index.  
8

9                   MS. GARCIA: Okay, yes, I've got it.  
10

11                  MR. HONEA: Okay. We're looking at  
12 2017. So if this continued on to 2020, then you would  
13 see a crash right there, is that correct?  
14

15                  MS. GARCIA: That's a great question.  
16 And it's one of the things that we're working on  
17 because as you can see in 2003 to 2006, those juvenile  
18 chum abundances were also really low and actually they  
19 were lower than 2017 so we didn't see crashes of  
20 juvenile fall chum salmon in the 2007 to 2010 years.  
21 So that's one of the things that we're trying to figure  
22 out is how does the abundance in the Northern Bering  
23 Sea in the juvenile chums, how does that relate to the  
24 adult return, and, you know, 2017 that -- with the low  
25 returns that we saw in 2020 and the low age four  
26 component it makes me think that, yes, if we continue  
27 to see lower abundances in the Northern Bering Sea that  
28 would be a cause for concern. I'm really hoping that  
29 these really higher than average abundances in 2018 and  
30 2019, I hope that those turn into better returns this  
31 year and next year. I'm curious as to what the returns  
32 will be, or what the run sizes will be this summer  
33 because if -- you know, we saw a low age four component  
34 last year, if we also see an age five component this  
35 year, so those would be fish that were caught in the  
36 2017 survey, that might give us an indication that what  
37 we're seeing in the ocean is, in fact, affecting the  
38 run sizes a few years later.  
39

40                  I'm hoping that this 2018 and 2019 --  
41 the 2018 fish would come back as age four in 2021 so  
42 we'll have to keep an eye out to see how those age four  
43 fish come back this year, if they're a little bit  
44 higher than we expect, a little bit lower, that'll give  
45 us some indication as to how good what we catch in the  
46 ocean can.....  
47

48                  MR. HONEA: Okay.  
49  
50

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1 MS. GARCIA: .....predict.....

2

3 MR. HONEA: Okay.

4

5 MS. GARCIA: .....what comes back to  
6 the river.

7

8 MR. HONEA: Okay, okay, I'm -- I'm  
9 trying to understand this. I mean I -- I mean very  
10 well, I could say 2017 outgoing was whatever and we  
11 say, well, the four year olds, but where is the five  
12 year olds, or I mean the six year olds, I mean I'm --  
13 I'm trying to understand this. But could 2009 and then  
14 three years later we come up to 2012, so if the -- the  
15 bar -- that's 2000 [sic]?

16

17 MS. GARCIA: Sure. So I think what you  
18 might be getting mixed up is that what you see in that  
19 fall juvenile chum salmon index, that's only measuring  
20 the juvenile chum salmon. So this is just showing us  
21 what we caught in the ocean. But if you turn to the  
22 next slide, the one that shows.....

23

24 MR. HONEA: Yeah.

25

26 MS. GARCIA: .....juvenile fall chum  
27 salmon to adult return.....

28

29 MR. HONEA: Yeah.

30

31 MS. GARCIA: .....that's where you'll  
32 see the number of fall chum salmon that we catch in the  
33 ocean, the juvenile and what did they predict for the  
34 adult return. So if we look at 2007 you can see that  
35 we, you know, caught about -- it goes about 30 and that  
36 resulted in about 900,000 fall chum. So what you're  
37 seeing in Slide 13 is just the juveniles, it doesn't  
38 tell us how many adults came back from the juveniles.  
39 And the important thing to remember is that the  
40 juveniles that we catch in the ocean, they're age one,  
41 and they're going to come back either three years later  
42 as age four, or four years later as age five, or five  
43 years later as age six. So one juvenile year  
44 contributes to three different years of adult run.

45

46 MR. HONEA: Okay. Well, whatever, like  
47 yourself, I'm kind of excited to see what this year  
48 brings. I mean it was just eerie last year when we up  
49 in August and September and stuff, I didn't even see a

50

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1 fish jump at a -- you know, at our nice big eddy up  
2 there, there was like no fish in the river and it was  
3 really eerie. So I'm hoping and going by this chart it  
4 kind of gives me a little bit of hope that, hey, maybe  
5 -- maybe things will turn around.

6  
7 I appreciate that I got all that  
8 information right in front of me.

9  
10 Thank you. And, thank you, Madame  
11 Chair for these questions.

12  
13 ACTING CHAIR PELKOLA: Thank you, Don.  
14 Do we have any more comments or questions for Sabrina.

15  
16 (No comments)

17  
18 ACTING CHAIR PELKOLA: I thought it was  
19 a very good report. I followed along well and I added  
20 some of my own notes on there so I could understand it  
21 a little bit more, but you did a terrific job on that,  
22 thank you very much.

23  
24 MR. GERVAIS: Jenny, this is Tim, may I  
25 ask a question, please.

26  
27 ACTING CHAIR PELKOLA: Yeah.

28  
29 MR. GERVAIS: Thank you, Madame Chair.  
30 Sabrina, what is the percent of the run size for  
31 Kuskokwim and Yukon for the four year old and five year  
32 olds, like how -- potentially this low -- low juvenile  
33 event, 2017 is going to affect the five year old  
34 component of our chum run, what percentage of the total  
35 run is that, of the five year old age class?

36  
37 MS. GARCIA: Hi, that's a great  
38 question and it changes from river to river. But I  
39 guess to give you a comparison from -- this is just for  
40 the lower Yukon River -- or from the lower Yukon River  
41 test fishery, so from 2010 to 2019 age four chum  
42 typically average about 52 percent of the summer chum  
43 salmon run and then in 2020 that proportion dropped  
44 down to 19 percent, and so that was for summer chum.  
45 We saw a similar trend for fall chum salmon where the  
46 last -- the 10 year average of age four was about 70  
47 percent age four fall chum salmon, but then in 2020  
48 that dropped to about 46 percent. So when we look at  
49 that juvenile abundance in 2017, those one year old  
50



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1 juveniles would have returned to the river as four year  
2 olds in 2020 so that gives us -- that makes us think  
3 that what we're seeing in the ocean is accurately  
4 telling us what is going to come back to the river a  
5 few years later. And so the juveniles that we caught  
6 in 2017 that returned as four year olds in 2020,  
7 they're going to come back in 2021 as five year olds.  
8 So if we see a lower age five component this summer  
9 that might tell us that we might be able to use what we  
10 catch in the ocean to predict what comes back. And  
11 then along the same lines, those 2018 juveniles that we  
12 caught, they would come back this summer as four year  
13 olds, and because that 2018 juvenile abundance was  
14 above average, we're hoping that that results in higher  
15 age four returns this summer.

16  
17 But as I said we're going to have to  
18 see what actually comes back.

19  
20 MR. GERVAIS: All right, thank you. My  
21 final question is, on your slide with early marine  
22 ecology of chinook salmon diets, '03 to '17, is there  
23 showing that shift in diet between the warm years and  
24 the cold years, is one of those diet preferential to  
25 the fish or can they have good health with either diet?

26  
27 MS. GARCIA: That's a great question.  
28 So both sandlance and capelins are really good food  
29 items for juvenile chinook, but they're like a general  
30 feeder. So it's not like they're specifically looking  
31 for one fish type. They're kind of eating whatever  
32 fish type is readily available and abundant. And so  
33 what we think the reason why they're switching is  
34 because we believe that, and it's been shown based on  
35 our Northern Bering Sea surveys that capelin, what  
36 they're eating in those cold years, or what they're  
37 eating the most of in the cold years, capelin are --  
38 generally have higher abundance in the Northern Bering  
39 Sea when the water is colder. So it kind of makes  
40 sense that when the water is cold and there's more  
41 capelin around, juvenile chinook are eating higher  
42 proportions of capelin. So they're not specifically  
43 looking for either capelin or sandlance, they're just  
44 eating whatever -- you know, whatever's easy and  
45 whatever's around, but they're both fish -- fish prey,  
46 is a good food source. Just one of the things that,  
47 you know, I had mentioned with the energy density is  
48 that, you know, when it gets warmer, you know, their  
49 metabolism is going a bit faster so they generally need  
50

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1 to eat more to maintain that metabolism in warmer  
2 waters so they need to eat both to grow, but then they  
3 also need to eat enough to store energy for the winter  
4 so probably what's happening in these warmer years is  
5 that they're not able to eat enough to both grow and  
6 store enough energy for the winter. So that's one  
7 thing that is a little bit concerning, especially with  
8 the warmer years that we've seen in the Bering Sea and  
9 it's something that we're going to continue to monitor  
10 in the next few years.

11

12 I don't know if Jim mentioned this, but  
13 the survey was cancelled last year because of Covid but  
14 we are going back out to do the surveys both 2021 and  
15 2022 so we'll have two more years of data and we can  
16 see what -- you know, what those trends look like for  
17 both the diet and their energy density.

18

19 MR. GERVAIS: Okay. And the latitude  
20 of the ice edge during the winter, that has a big  
21 affect on the food production and the diet of the  
22 chinook right?

23

24 MS. GARCIA: Yeah. Jim can probably  
25 speak a little bit more to the sea ice dynamics than I  
26 can and hopefully he's still on the line.

27

28 MR. MURPHY: I am. You know, I think a  
29 lot of the sea ice, we don't fully understand how the  
30 ecosystems are changing with the sea ice but it is a  
31 topic of concern. I think clearly with the loss of  
32 winter sea ice it's having a direct effect on  
33 temperatures, and so just as Sabrina is showing that  
34 diet changes with temperature. It means that diet is  
35 changing with sea ice. If that makes sense.

36

37 MR. GERVAIS: All right, thank you very  
38 much. Appreciated the presentation from both of you.

39

40 MR. MURPHY: Yes.

41

42 MR. REAKOFF: Madame Chair.

43

44 ACTING CHAIR PELKOLA: Yes, go ahead  
45 Jack.

46

47 MR. REAKOFF: Yeah, I just want to  
48 state that I really appreciate these presentations that  
49 we had this morning. All of this information about how  
50

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1 the climate change and the affects of the different  
2 species of salmon and how it affects bycatch and all of  
3 that was very informative and really appreciate all the  
4 presenters.

5  
6 Thank you.

7  
8 ACTING CHAIR PELKOLA: Thank you, so  
9 much.

10  
11 MR. HONEA: Madame Chair.

12  
13 ACTING CHAIR PELKOLA: Don.

14  
15 MR. HONEA: I just want to reiterate  
16 what Jack just said. I find this stuff really helpful.  
17 So there's a light at the end of the tunnel here and  
18 maybe this -- kind of gives us hope for this upcoming  
19 fishing season, especially fall and -- summer and fall  
20 chum -- chum runs. So I really think that the time is  
21 well spent in listening to these presentations and I  
22 appreciate that.

23  
24 ACTING CHAIR PELKOLA: Yeah, thank you.  
25 Same here. I enjoyed this and it's a learning process  
26 and the more we hear, the more we learn and I know we  
27 have a lot to learn yet. And these people, looks like  
28 you're really working, I mean that's -- a lot of these  
29 things I wouldn't even know.

30  
31 Thank you, again.

32  
33 MS. GARCIA: Madame Chair, if I could  
34 just chime in once more and just reiterate. Well, I'm  
35 sure I speak for Jim as well, that we really enjoy  
36 giving these presentations and that we know it's a lot  
37 of information to present and what never seems like  
38 enough time but we really encourage if anybody has any  
39 questions to please don't hesitate to reach out to us  
40 through email or through that FaceBook page that I  
41 mentioned and, you know, we really want to make sure  
42 that the research we're doing gets out to the people  
43 who want to know about it.

44  
45 Thank you.

46  
47 ACTING CHAIR PELKOLA: Thank you.

48  
49 MR. HONEA: Hey, on that note -- Madame  
50

0221

1 Chair, I just wanted to say that some of us that have  
2 emails can have -- like I mentioned this morning to be  
3 able to pass those email addresses on and I appreciate  
4 that, thank you.

5  
6 ACTING CHAIR PELKOLA: Thanks, again.  
7 Okay, if there's no more -- any more comments or  
8 questions.

9  
10 (No comments)

11  
12 ACTING CHAIR PELKOLA: If not, what's  
13 our next topic -- agenda topic or -- Karen.

14  
15 MS. DEATHERAGE: Madame Chair.

16  
17 ACTING CHAIR PELKOLA: Yes.

18  
19 MS. DEATHERAGE: Hi there, it's Karen  
20 Deatherage with OSM. And right now we're coming to the  
21 end of the meeting and at your discretion you can ask  
22 for closing comments and then a motion to adjourn the  
23 meeting unless you have any other topics that you would  
24 like addressed.

25  
26 Thank you.

27  
28 ACTING CHAIR PELKOLA: Okay. Does the  
29 Council have any other topics to address at this time  
30 or not.

31  
32 MR. HONEA: I don't have any.

33  
34 ACTING CHAIR PELKOLA: Pollock, do you  
35 have any.

36  
37 MR. SIMON: No, nothing.

38  
39 ACTING CHAIR PELKOLA: Okay. Goodwin.

40  
41 MR. SEMAKEN: No, nothing.

42  
43 ACTING CHAIR PELKOLA: Okay, thank you.  
44 So at this time we'll go ahead and go into our closing  
45 comments and I'd like to start with Pollock.

46  
47 MR. SIMON: Yeah, the last three  
48 presentations they were talking about Bering Sea fish  
49 and what we need up and down the river is to try to get  
50

0222

1 more fish in the rivers. We want to try to get more  
2 fish to the spawning grounds, like the wild stock fish,  
3 fish that are for the peoples. Some farm fish like  
4 that, they taste different. So let the king salmon  
5 being the main fish diet for peoples up and down the  
6 river, we have whitefish, which comes pretty close but  
7 I prefer it to be king salmon and we have sheefish.  
8 This past summer we put only two king salmon in the  
9 freezer but 10 king salmons would be good. I hope they  
10 reduce the bycatch and keep working the best so we can  
11 get more salmon in the river, up and down the river.  
12 I'm on Koyukuk River, Koyukuk River tributary up the  
13 Yukon, sometimes -- the last several years there's  
14 hardly any king salmon and now there's not enough chum  
15 salmon and sometimes the Fish and Game give us  
16 restrictions to pull our net out at certain times so --  
17 that's my comments.

18  
19 Thank you, Madame Chair.

20  
21 ACTING CHAIR PELKOLA: Pollock, that  
22 was very good.

23  
24 Don.

25  
26 MR. HONEA: Yeah. I especially, and,  
27 thank you, Madame Chair for leading us through this. I  
28 -- I really enjoyed the ones on the fishing because I'm  
29 really concerned about the fishing that we had last  
30 summer, I just could not and I still can't believe  
31 that, you know, for years and years we've always  
32 depended on -- you know, we had moratoriums where they  
33 -- you know, for fishing, to not fish for kings and  
34 such and we always, just always depended on the fall  
35 and summer chum and it was really kind of devastating  
36 to -- I never thought it would happen. So I -- the  
37 fishing parts of these, I really enjoyed the  
38 presentations today and the ones by YRDFA and by  
39 Maschmann, Gerald, and anything to do with fishing. So  
40 appreciate that.

41  
42 And I just -- I can't wait -- you know,  
43 one time in a McGrath meeting, I think I was speaking  
44 mostly on what -- about my area and someone reminded  
45 me, that, hey, you, you guys speak for all of us, and  
46 so that's why I am kind of concerned about the make up  
47 of the Board right now. I'd like to see Red Devil,  
48 Aniak, that area, I don't know their concerns and I'd  
49 like to see them, I'd like to see some from Grayling or  
50

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1 Anvik or Holy Cross get back on here, and have us fully  
2 covered. But right -- you know, in the midst of this,  
3 it's kind of refreshing to know that, hey, that we just  
4 learned a lot today, I -- I did anyway. I mean it's  
5 just almost sometimes kind of -- kind of overwhelming,  
6 the -- the things that are -- and that's why I think  
7 some (indiscernible - TV or radio playing in  
8 background) whole thing here of what happened to a  
9 particular species of fish and such.

10

11 (Teleconference interference -  
12 participants not muted)

13

14 MR. HONEA: I appreciate the people  
15 that was on here and I appreciate you, Jenny, for  
16 leading us and look forward to the next one.

17

18 (Teleconference interference -  
19 participants not muted - RUNNING TELEPHONE CONVERSATION  
20 OVER PARTICIPANTS)

21

22 ACTING CHAIR PELKOLA: Okay, thank you,  
23 Don. And we're on to Goodwin, closing comments.

24

25 MR. SEMAKEN: Hello, I could barely  
26 hear you.

27

28 ACTING CHAIR PELKOLA: Closing comment.

29

30 MR. SEMAKEN: Oh, okay. Thanks for  
31 having the meeting. Pretty darn interesting, learned a  
32 lot. I mean it ain't good meeting like this, that's  
33 for sure. Gee, it looks like we're losing out on our  
34 fish and that's really concerning, so it's our survival  
35 and it's one of our main supplies so it's really  
36 concerning, thank you very much, Jenny, and the Board.

37

38 ACTING CHAIR PELKOLA: Okay, thank you.  
39 Is Jack on there, are you still on Jack, if you want to  
40 make a comment.

41

42 MR. REAKOFF: Yes, I'm still here.

43

44 ACTING CHAIR PELKOLA: Go ahead, Jack.

45

46 MR. REAKOFF: I really appreciated  
47 listening in to the Council. You did a great job  
48 running the meeting there, Jenny. And I really feel  
49 for the Council, the outrage of four members for a 10  
50

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1 member Council, they need to make more appointments  
2 than 3 to start catching up. We need to have -- all  
3 applicants need to be appointed. They need to be  
4 appointed sooner than later. So I think U.S. Fish and  
5 Wildlife was going to work with the new Secretary of  
6 Interior to get the appointments coming through because  
7 we can't go another cycle, we need to have appointments  
8 now within the next couple months. Continue to appoint  
9 at a higher rate to catch back up to where we used to  
10 be, we used to have 10 members.

11  
12 So I do appreciate all the work this  
13 Council did and I think you had a real good meeting,  
14 and I really appreciated all the presentations from the  
15 Staff that have participated.

16  
17 ACTING CHAIR PELKOLA: Thank you, Jack.  
18 It's always good to hear from you and you've always  
19 been very encouraging. How about, Tim, are you still  
20 on the line?

21  
22 MR. GERVAIS: Yes, I am. This is Tim  
23 Gervais. Great job running the meeting, Jenny, really  
24 enjoyed listening to you moderate. I echo Jack's  
25 comment on hopefully we can get more appointments and,  
26 especially Kuskokwim appointments put up so we can get  
27 the Council back to a reasonable size.

28  
29 It sounds to me like there's not much  
30 hope for the chinook run, king run over the next few  
31 years, so hopefully the fall chum run in the summer of  
32 2021 will materialize and be enough of an alternative  
33 fishery for people but it's interesting and I'm  
34 thankful to Jack and Karen and for the presenters for  
35 bringing in this other information on environment and  
36 food things and spacial distribution in the Bering Sea,  
37 it's helping me and everyone on the Council understand  
38 all the variety of factors affecting the survivability  
39 of the salmon.

40  
41 Because of these challenges with  
42 temperature and sea ice, food change stuff, I think  
43 that makes that -- the salmon that is -- even though  
44 the North Pacific Council is working hard to control  
45 the bycatch, at this stage of the stock for the chinook  
46 salmon, I don't think that we can afford to have the  
47 trawl fleet catching those fish as bycatch, there's not  
48 enough spare salmon to have that percentage of the  
49 population taken out. And I would encourage the WIRAC  
50

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1 to communicate to the Federal Subsistence Board that  
2 something needs to be done, Amendment 91, as it sits  
3 right now, and Amendment 110 isn't enough to get the  
4 stocks rebuilt and more drastic action needs to be  
5 taken. It's not acceptable to have commercial  
6 fisheries taking these king salmon out of the  
7 environment when subsistence aren't met and escapement  
8 goals aren't being met. So I hope something can be  
9 advanced that -- it would be good to communicate some  
10 how -- I'll try to testify personally at least to North  
11 Pacific Council in April that more drastic measures  
12 need to be taken. I mean in those national standards I  
13 was reading they talk about to the extent possible,  
14 well, extent possible, if you don't want a boat to  
15 catch certain fish or certain bycatch, I mean they can  
16 just leave the gear out of the water or stay tied up at  
17 the dock, it's an economic problem for those businesses  
18 but what is that, just because they have a lot of money  
19 invested, does that mean they have a right to help  
20 destroy or have a detrimental effect on a struggling  
21 population.

22

23 All right, I'll leave it at that.

24

25 Thank you to the four members for their  
26 participation and wish everybody a safe spring.

27

28 MR. HONEA: Thank you, Tim.

29

30 ACTING CHAIR PELKOLA: Thank you. That  
31 was very good. Do we have any -- Darrell, are you  
32 still on, do you want to make a comment.

33

34 MR. VENT: Sure, thank you. This is  
35 Darrell Vent, Huslia. I was glad I was able to speak  
36 in the meeting today and, thank you, Jenny, for hosting  
37 the WIRAC, you did a good job there. Missed  
38 (indiscernible - beeping) sometimes but I got to learn  
39 how to do that for other people too, I guess. Just a  
40 little side joke there.

41

42 Anyway, you know, it's interesting that  
43 we are moving into times where we're looking at a lot  
44 of hardships in some areas and all the facts, you know,  
45 with this global warming, I think that we're going to  
46 be going through changing times until we figure out how  
47 to get rid of this global warming or, you know, the  
48 environment's changing where our fish is being  
49 affected, our animals are being affected and we have to

50



0226

1 keep on top of everything but, you know, it's why we're  
2 here. We're all bringing up everything in discussion,  
3 and wishing that, you know, we could do more but with  
4 what we got, we have to move -- you know, the culture  
5 and some things, without everything available.

6  
7 All right, thank you guys for a good  
8 meeting and I'm glad that I was able to sit in and  
9 listen to all your comments. I'm learning, you know,  
10 I', not very young but I'm, what they call, a senior in  
11 training, so thank you for everything.

12  
13 ACTING CHAIR PELKOLA: Thank you,  
14 Darrell. Okay, my comment, I just want to thank  
15 everyone with me, and being my first meeting, running  
16 the meeting, I was a little bit scared and nervous and  
17 since there was nobody in my room looking at me it made  
18 it easy. I want to thank you, Karen, for all your help  
19 for guiding me and just keeping me in order. And all  
20 the presenters, they did a good job, some were a little  
21 bit long, but I know it's -- we have to sit and listen  
22 and try to absorb as much as we can from them and I  
23 like it when I see the paper in front of me, I can  
24 follow it better.

25  
26 I want to apologize for not giving you  
27 a break this morning but, man, we cruised right along,  
28 and we're at home, you know, I could stand and walk  
29 around a little.

30  
31 Under -- I have a question on that. I  
32 don't know -- a comment -- I just want to wish and hope  
33 that we have more representations on NOAA from our  
34 area, I looked at the pictures of the people that were  
35 on there and I don't know anyone, I -- it's just like  
36 we don't have any representation and some how, some  
37 way, we got to work at it. We got to go to our tribe  
38 or corporation or something to try to get more people  
39 on there that represent our area. Now, it seems like  
40 they're beginning to listen but we -- you know, I don't  
41 think they quite understand how, you know, we live up  
42 here and the fish we depend on and what do we depend on  
43 so I would like to see more representation.

44  
45 The bycatch. I know that lady talked  
46 about -- or somebody talked about distributing the  
47 fish. I don't know what kind of fish they give out but  
48 I know we got some kind of fish in Galena from TCC and  
49 I don't know where they got it from, maybe from them,  
50

0227

1 but if they're throwing king salmon away that's what I  
2 think our area would like.

3

4 And, again, I just want to thank you  
5 all for bearing with us and I know I called on some,  
6 you know, when I wanted to because I know when I was  
7 new I used to be hated for -- you know, I didn't want  
8 anybody to call on me and I'd just get nervous but as I  
9 listened when I first started I could hear, especially,  
10 Goodwin, you were coming out very good on the end  
11 there, you started speaking a little bit more and  
12 that's what I was trying to do, I guess, trying to add  
13 a little bit more.

14

15 And with that I'll go ahead and quit,  
16 thanks, again.

17

18 Now, back to the meeting, is there a  
19 motion to adjourn, or Karen, do you have anything first  
20 before we adjourn.

21

22 MS. DEATHERAGE: Thank you, Madame  
23 Chair. Yes, this is Karen Deatherage with OSM. And I  
24 do want to thank everybody on this call, both the  
25 Council members, the potentially pending Council  
26 member, the potential Council members in the future for  
27 the next cycle, the presenters. And for the  
28 participation, it's really tough to be on the phone for  
29 this long, as we all know, I think everybody did really  
30 well and it's appreciated. The Council was engaged and  
31 that makes me very proud because you asked good  
32 questions of the presenters and, like you, I learned a  
33 lot, not only from the presenters but from your  
34 questions about what the needs are in your region, and  
35 so I really appreciate that.

36

37 I can tell you that the Office of  
38 Subsistence Management and the Federal Subsistence  
39 Board truly recognizes the concern of the Council  
40 membership and we're working as much as we can, it's a  
41 priority issue for the organization to fill these  
42 Councils. What you all can do to help, now that we  
43 have an extension on the application deadline, March  
44 12th, is, please, encourage folks that you know to  
45 apply, as many as you know. We'll have alternates now,  
46 opportunities for alternates in case something happens  
47 so the more applicants we have that we can get through  
48 this process the better.

49

50

0228

1                   And, again, thank you all very much,  
2 and thank you, Jenny, for a wonderful meeting, and for  
3 the inclusivity that she provided for all the Council  
4 members today and.....

5  
6                   MR. HONEA: Karen.

7  
8                   MS. DEATHERAGE: .....yesterday  
9 and.....

10  
11                   MR. HONEA: Karen.

12  
13                   MS. DEATHERAGE: .....you all take good  
14 care and stay safe. Okay, thanks.

15  
16                   MR. HONEA: Karen.

17  
18                   MS. DEATHERAGE: Yes.

19  
20                   MR. HONEA: Checks are in the mail?

21  
22                   MS. DEATHERAGE: Yes, your's is getting  
23 (indiscernible), I decided to do that Don, uh-huh.

24  
25                   MR. HONEA: Covid -- Covid checks.

26  
27                   MS. DEATHERAGE: Yeah, Covid checks,  
28 I'll call Joe.

29  
30                   MR. HONEA: You call smoking Joe, make  
31 him do something.

32  
33                   MS. DEATHERAGE: Yeah, well, actually I  
34 heard the Bill's going to be in the House next week for  
35 Covid, but, yes, unfortunately we can't send you a  
36 check but we send our gratitude so thank you all very  
37 much.

38  
39                   MR. HONEA: Mean, you singled me out.  
40 Okay.

41  
42                   ACTING CHAIR PELKOLA: They could send  
43 us lunch.

44  
45                   MR. HONEA: It's the least they could  
46 do.

47  
48                   ACTING CHAIR PELKOLA: Is there a --  
49 what the heck is it -- to adjourn.

50

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1 MR. HONEA: I make a motion to adjourn.

2

3 MR. SIMON: Second by Pollock.

4

5 ACTING CHAIR PELKOLA: Seconded by  
6 Pollock. Okay, the motion -- I mean the meeting is  
7 adjourned at 1:50, see you at the next meeting.

8

9 (Off record)

10

11 (END OF PROCEEDINGS)

12

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1 C E R T I F I C A T E

2

3 UNITED STATES OF AMERICA )

4 ) ss.

5 STATE OF ALASKA )

6

7 I, Salena A. Hile, Notary Public in and for the  
8 state of Alaska and reporter for Computer Matrix Court  
9 Reporters, LLC, do hereby certify:

10

11 THAT the foregoing pages numbered \_\_ through  
12 \_\_\_\_ contain a full, true and correct Transcript of the  
13 WESTERN INTERIOR FEDERAL SUBSISTENCE REGIONAL ADVISORY  
14 COUNCIL MEETING, VOLUME II taken electronically on the  
15 18th day of February;

16

17 THAT the transcript is a true and  
18 correct transcript requested to be transcribed and  
19 thereafter transcribed by under my direction and  
20 reduced to print to the best of our knowledge and  
21 ability;

22

23 THAT I am not an employee, attorney, or  
24 party interested in any way in this action.

25

26 DATED at Anchorage, Alaska, this 27th  
27 day of February 2021.

28

29

30

31 \_\_\_\_\_  
32 Salena A. Hile  
33 Notary Public, State of Alaska  
34 My Commission Expires: 09/16/22

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