NORTHWEST ARTIC SUBSISTENCE
REGIONAL ADVISORY COUNCIL

PUBLIC MEETING

VOLUME II

NORTHWEST ARCTIC HERITAGE CENTER
Kotzebue, Alaska
March 28,2025

COUNCIL MEMBERS PRESENT:
Thomas Baker, Chair
Tristen Pattee
Michael Kramer
Clyde Ramoth, Sr.
Elmer Armstrong, Jr.
Verne Clevland, Sr.

Regional Council Coordinator, Lisa Hutchinson

Recorded and transcribed by:

Lighthouse Integrated Services Corp
877-261-2495
Info.@lighthouseonline.com

P R O C E E D I N G S

(Kotzebue, Alaska - 3/28/25)

(On record)

CHAIRPERSON BAKER: All right, good morning, everyone. It is now 9 a.m. We are here in the Northwest Arctic Heritage Center for the second day of the Northwest Arctic Subsistence Regional Advisory Council winter meeting. This is Chair Thomas Baker. I'm going to go ahead and bring us back in. So, we will pick up where we left off. I'd just like to go through a quick welcome and introductions. Just so that we know who we have in the room, I'd like to ask one person from each organization, as I call them up, to come up to the table, introduce your team that's here, and then we'll go through folks in the room. So, we'll start with Office of Subsistence Management.

DR. VICKERS: Good morning, again. Brent Vickers, Office Subsistence Management, Here with Hannah Voorhees, Tom Plank and also Lisa Hutchinson, Subsistence Coordinator. Thank you.

CHAIRPERSON BAKER: Thank you, and anyone from OSM on the phone?

MR. FOLEY: Morning, Chairman Baker, members of the Council. This is Kevin Foley, Fisheries Biologist. Great to hear everyone's voices. Thank you. OSM.

DR. ROBERTS: Good morning, everyone. This is Jason Roberts, anthropologist at OSM.

CHAIRPERSON BAKER: Fish and Wildlife Service in the room?

MR. WIESE: (In Native) Wil Wiese, Selawik refuge manager and I'm joined today with -- by Brittany Sweeney assistant manager for Selawik Refuge. Good morning.

CHAIRPERSON BAKER: Thank you. Fish and Wildlife Service on the phone?

(No response)

National Park Service in the room?

MS. CARLSON: Good morning. Annie Carlson with Western Arctic National Parklands. With me in the room is Emily Creek, our cultural anthropologist and subsistence coordinator.

CHAIRPERSON BAKER: Thank you. National Park Service on the phone?

MR. FROSTIN: Morning, this is Raime Fronstin, wildlife biologist, Western Arctic.

MS. JOCHUM: Good morning, this is Kim Jochum, Regional Office Subsistence Program.

MR. JOLY: (Indiscernible), this is Kyle Joly, I'm a caribou biologist with the National Park Service.

MR. DOUCET: Morning, this is Bredan Doucet, I'm a archaeologist with Western Arctic.

MS. OKADA: Good morning, this is Marcy Okada, Subsistence Coordinator for Gates of the Arctic National Park and Preserve.

CHAIRPERSON BAKER: Anyone from the Bureau of Land Management in the room?

(No response)

Not seeing anyone. Anyone from the BLM on the phone?

(No response)

We have anyone representing tribes or Alaskan Native corporations in the room?

MR. KIRK: Good morning, this is Robbie Kirk with NANA.

CHAIRPERSON BAKER: Alaska Native corporations on the phone?

(No response)

Anyone from the Alaska Department of Fish and Game in the room?

(No response)

Alaska Department of Fish and Game on the phone?

MR. HENSLEE: Hey, this is Luke Henslee. I'm the assistant area management biologist for Norton Sound and Kotzebue; I'm based in Nome.

MS. COLD: Good morning, everyone. This is Helen Cold, the Department of Fish and Game Subsistence in Fairbanks.

CHAIRPERSON BAKER: We have.....

(Simultaneous speech)

MR. SPENCER: Hello, this is – oh.....

CHAIRPERSON BAKER: Go ahead.

MR. SPENCER: Excuse me, this is Joe Spencer, fishery biologist in Fairbanks with Fish and Game.

CHAIRPERSON BAKER: Any other federal agencies in the room or on the phone?

(No response)

Any other state agencies in the room?

(No response)

Any other state agencies on the phone?

(No response)

Anyone else in the room?

MS. LOOBY: Good morning, this is Caitlin Looby with the University of Alaska Fairbanks, and I'm here with Dr. Todd Brinkman.

MS. TILLQUIST: Heidi Tillquist with Red Dog. I'm on the Teck project.

MS. GEORGETTE: And good morning. Susan Georgette, Kotzebue citizen.

CHAIRPERSON BAKER: All right, we do have a couple members that are excused this morning. Lisa, would you please do a quick roll call?

MS. HUTCHINSON: Yes, good morning, Chair and members of the Council and all those here in -- at the Northwest Arctic -- Heritage Center, beautiful heritage center, is a beautiful day here and those that are online and also on the radio. I'm going to do the roll call for Council members now for the Northwest Arctic Regional Advisory Council. Karmen Monigold.

(No response)

And she told us that she was going to be not available today, so she's excused. Tristen Pattee.

MS. PATTEE: Here.

MS. HUTCHINSON: Attamuk Shiedt.

UNIDENTIFIED: For the record, he is attending the funeral too.

MS. HUTCHINSON: He might be calling in later, too. He told me so, we'll see if he comes back. Wilbur Howarth.

(No response)

I believe Wilbur said he's going to be not available either, attending memorial service. Clyde Ramoth.

MR. RAMOTH: Here.

MS. HUTCHINSON: Elmer Armstrong.

MR. ARMSTRONG: Present.

MS. HUTCHINSON: Verne Cleveland.

MR. CLEVELAND: Here.

MS. HUTCHINSON: Michael Kramer.

MR. KRAMER: Here.

MS. HUTCHINSON: And Thomas Baker.

CHAIRPERSON BAKER: Here.

MS. HUTCHINSON: Yes, Raymond Woods. Okay, present. We do have -- two, three, we do have six present. So, we do have a quorum, thank you.

CHAIRPERSON BAKER: Thank you for that, Lisa. We do have a quorum this morning. So, we will now go into some housekeeping items, and I'll turn it over to Lisa again.

MS. HUTCHINSON: Yes, good morning, again. So, I announced these yesterday, but I wanted to just -- first of all, for those of us in the room for safety, we do have two emergency exits to pay attention to. One is at the back of the room where we all entered and then you can enter -- exit through the doors out there that you came into, and then here at the -- behind the Council members, there's an exit out that way. Also, for those attending also in person, I know you know that you're all here, but even the Council members, if you could please sign that sheet sometime today, I'd really appreciate it. And if there's anybody that would like to address the Council during the meeting, if you're in the room please fill out one of the blue testifier forms, they're at the back of the table where the sign in sheet is, and then you can hand it to me or one of the other staff members, and I can make sure that Chairman Baker gets alerted to that, and he will call on you when he's -- when is available. For any participants that are on the phone, please remember to mute your phone when you are not speaking. And if you would like to address the Council, reminder, press a star five to raise your hand and we will see that on the line, and I can remind you about that later. And then we -- I'll be able to see that and then we can call on you. We'll see you by your phone number for you to have the opportunity to speak.

And if you're joining on the Teams platform online, you can also speak, raise your hand at kind of -- at the upper right corner, there's a little thing you can raise your hand, and we'll see that you want to be -- say something and we'll call on you when the time is right. The meeting materials for those online that didn't get this yesterday, you can google search for Northwest Arctic Subsistence Regional Advisory Council and then look under the meeting materials and you can find the agenda and most of the documents that have been submitted, or you can also -- the website is

www.doi.gov/subsistence/regions/NorthwestArctic or NWA. Anyway, the Chair will also announce the time for tribal and public comments on non-agenda items each morning. So, this morning he will announce that shortly. It'll be an opportunity for those present as well as those participating on the phone or Teams to speak on non-agenda items if you'd wish. And if you would like to submit a comment by email, you can also do by sending that to subsistence at, the @ symbol ios.doi.gov. And just to remind everybody that our meeting is conducted by Robert's Rules of Parliamentary Procedure, which helps us provide structure and maintain order throughout the meeting. And all participants are expected to be courteous and respectful in the interactions as a matter of meeting etiquette. Thank you for allowing me this time, Mr. Chair, and back to you. Thanks.

CHAIRPERSON BAKER: Thank you for that, Lisa. At this time, I will open the floor for public and tribal comments on non-agenda items. We do this each morning, if there's anyone in the room that was hoping to make a public or tribal comment on a non-agenda item, this is your time.

(No comments)

Going once, going twice. There're some smiles, but no one's coming to the microphone. Is there anyone on the phone that was hoping to make public or tribal comment on non-agenda items?

(No response)

MS. HUTCHINSON: And again, I'd like to remind anybody that's on the phone, if you -- if you're on your phone, press star five and we'll be able to see if you want to be addressed. Thank you.

CHAIRPERSON BAKER: And again, anyone on the phone that would like to make a public or tribal comment on non-agenda items, now is your opportunity.

(No comments)

It doesn't appear we have anyone. So, we'll move on. Yesterday we finished with our action items, and we will start with reports. Just as everyone is aware, there will be a time limit of 15 minutes unless approved in advance, which nothing was approved in advance. So, we're going to try to stick to 15 minutes

per presentation/report today. First, we have any tribal governments that were going to make any reports?

(No response)

Any Native organizations that were going to make any reports?

(No response)

Next, we have a time-certain for a couple different items. Next on our list is the Alaska Department of Fish and Game, that was going to be 11:00 a.m. for Helen Cold. Do we.....

MS. HUTCHINSON: Helen is online now. She might want to be able to do it.

CHAIRPERSON BAKER: Helen, would you be able to do the Arctic Beaver Observation Network Study overview now, or would you like to wait for the 11:00 a.m. slot?

MS. COLD: Hey, good morning, Mr. Chair. I'm available now. If folks are ready to hear it, that would be fine.

CHAIRPERSON BAKER: Is there a presentation accompanying that we would need to put on the screen?

MS. COLD: There is a presentation.....

(Simultaneous speech)

MS. COLD: Oh, go ahead.

MS. HUTCHINSON: Yeah, if you wanna share your screen that'd be fine, or we can have it here. So, whichever your preference is.

MS. COLD: Let me see if I can share my screen and then I wouldn't have to say, next slide.

MS. HUTCHINSON: Okay. So, Tom is hooking up everything so we can see it here.

MS. COLD: Okay.

MS. HUTCHINSON: So, thank you. Thank you, Helen, for taking this.

MS. COLD: Yeah, you bet. And let me know when you can see it, because I think I've shared.

(Pause)

MS. HUTCHINSON: We're seeing it on our screen, but not quite yet on the thing. So, just give us a second, thank you.

MS. COLD: No problem.

(Pause)

CHAIRPERSON BAKER: All right, we do have it on screen in the room. So, Helen, the floor is yours.

MS. COLD: Okay, well, thank you, Mr. Chair and members of the Council, for having me today. For the record, my name is Helen Cold, and I work with the Alaska Department of Fish and Game Division of Subsistence in the Fairbanks office. And I coordinate Division of Subsistence research partnerships with communities across the Seward Peninsula, the North -- Northwest Arctic and the North Slope. So, today I am going to provide you with some information about a project concerning beavers expanding into the Arctic. It's called the Arctic Beaver Observation Network.

So, the overarching purpose of this research is to better understand both the ecological and the social impacts of beavers moving into Arctic Alaska. This research is a partnership among some Northwest Arctic communities, some scientists at UAF, including Ken Tape and ADF&G, social scientists including myself, Caroline Brown, who's the research director, and Tim Bembenek. So, UAF is focusing on remote sensing and the ecological impacts of beavers in looking at aerial imagery. Northwest Arctic communities are contributing traditional and local knowledge of beavers and their impacts. And we at Fish and Game Subsistence are working with communities to document and analyze the traditional and local knowledge. This project began in 2021 and is wrapping up next year, and it's being funded by the National Science Foundation.

So, today I'll focus on the social science aspect of this work and for that, we're

collaborating with communities across the range of beaver expansion to try and document indigenous and local knowledge of beaver ecology and the impacts of beaver presence on subsistence resources, travel and access to resources by local residents and Arctic communities in general. And for this round of the research, we are collaborating with the communities of Shungnak, Kotzebue and Noatak.

We're using a variety of different social science research methods to work with communities. The first of which is ethnographic interviews, where we sit down with folks that both harvest beavers and have a long history of subsistence harvest on the landscape to try and understand beaver life history, including the habitat extent in the area, traditional and contemporary harvests and uses of beavers, beaver abundance in the region, and some of the population trends. Some of the impacts of beaver activity on other subsistence resources and activities, how beavers are interacting with the landscape and other species in the environment, and then just some general observations of environmental change. When we do those interviews there's also a mapping component where we work with the folks we're interviewing to try and make a timeline of expansion. So, by mapping out different dam and lodge sites and how those have expanded across river basins over time. Some of the areas folks might be harvesting beavers, as well as other resources that are being impacted by beavers. And we also conduct what we call participant observation, which is basically getting out with individuals on the landscape in the water to see some of these impacts. So, we will try and get out with folks to see some of the areas where dams and lodges and some of the environmental changes are taking place, and further document those sites with photos and field notes.

So, the next few slides, I'll go through some of the work that we've done with the three collaborating communities, starting with Shungnak. So, we visited Shungnak in March of 2023 for some ethnographic interviews with mapping. We had planned on visiting again in late 2024, but needed to postpone that trip until this spring, which we're still working to schedule, hopefully in April. And we would also like to go back out and conduct additional ethnographic interviews and participant observation in the fall.

So, just a quick overview of some of the information that we've worked with residents in Shungnak to document, they -- out of the three communities being the furthest East and closer to the Interior, have the longest history of beaver presence so, 40-50 years or more but numbers are continuing to increase in the area. Some residents are trapping or hunting them for food or fur. Although some folks indicate that might be taking place less than it has in the past. So, preliminary observations and concerns from some of the folks there include concerns about how more dams are blocking fish passage, especially whitefish and other non-salmon fish. And dams and beaver structures can also obstruct travel in sloughs and other areas that folks are using as natural corridors to access other subsistence resources, so for example, waterfowl hunting can be impacted. There are people that are concerned about water quality and some of the human health concerns associated with beaver presence and others that were indicating that, in particular, some of the interactions with other wildlife on the landscape, moose in particular, seem to like beaver ponds because there's more aquatic vegetation.

Next, we'll talk about Kotzebue. We visited Kotzebue several times thus far in March of 2023, where we conducted interviews with mapping. In April of 2024, we went out with a local trapper across the Baldwin Peninsula and also, snowmachine north of Sisualik, and in August we conducted ethnographic interviews with mapping as well. We also plan to visit again this spring and next fall for final round of interviews, and mapping and participant observation.

So, as far as beaver concerned, Kotzebue has more recent use practices than Shungnak. Folks are indicating that beavers arrived late 1980s, early 1990s, but that there's been a huge increase in the population over the last 20 years. Some individuals are trapping them and using them for fur and food, but it's not a widespread practice. And a lot of the folks that we did talk to that were currently trapping, they learned from others around Alaska or even out of State, because there hasn't been a long history of local use. Some of the observations and concerns folks had again, changes to local hydrology impacting whitefish and Arctic char in particular, spawning areas and movement of those fish. Concerns about water quality and human health and also, a lot of folks had a desire to -- an interest in learning more about some of the uses that folks from the Interior or other places across Alaska, some of their use

patterns, potentially through trapping workshops involving students at the school. There was an interest to do more and learn more.

Finally, Noatak, we visited Noatak several times. September of 2023, we conducted ethnographic interviews with mapping and also, participant observation. We went out on a river trip in the fall. In April we had a shorter visit where we conducted a community informational meeting and also, spoke with some students at the school. And then in May of last year, we conducted additional ethnographic interviews with mapping and also, got out on the river in the spring for some spring beaver hunting. We plan on revisiting Noatak this spring and next fall for the last round of ethnographic interviews and mapping and participant observation.

So, out of the three communities, Noatak has the most recent influx of beavers. So, starting about 20 years ago, they started spreading widely across the Noatak River basin. That's actually the picture I have here, is something that Ken Tape and his group generated. I don't know the exact year, but it's within the last five years. All those dots are different locations of beaver dams and beaver lodges across the Noatak River basin. There are some folks that trap, very few. More people are involved in, right after break-up in the spring, going out and hunting beavers. Similar to the other communities, some of the biggest concerns folks in Noatak mentioned were fish health and fish migration and spawning. Also, concerns about water quality and human health, and in some cases, access is impacted in the smaller tributaries, but not necessarily the major travel corridors and folks indicated that it really can be seasonally dependent. So, summer travel can be a little bit more challenging, especially considering water levels. Whereas when things freeze over in the winter, it's generally not as big of an issue. Some folks were indicating that beavers can be very tenacious, and they've seen them migrating in action. So, there was one individual that said he found one on a ridge top trying to move to a new basin. And here as well, folks have a desire to learn more about some of the management strategies that could be employed to try and reduce beaver impacts and also, the uses of beavers.

So, looking at communities overall in this research project, some of these themes are kind of consistent across the region. So, most common seem to

be concerns about impacts on fish, specifically non-salmon fish and also human health and water quality. Also, there were individuals that were speaking to some of the ecosystem level changes and how even the things that don't appear to be directly impacted by beavers like fish, play into this story. So, there was one person specifically that talked about how some of these hydrologic changes impacting whitefish spawning in turn could be impacting marine mammal populations for like -- for example, beluga or other animals that would then feed on the fish that were being impacted by beavers. Also, local access to resources can be impeded by beaver structures and some of the associated changes to hydrology. And across the Board a lot of folks are interested in learning more, not only about how to incorporate beavers into local subsistence economies, but how they might be able to manage beavers in their area.

So, future work and ways to get involved, this is a topic that a lot [sic] people are talking about. One way that people get together is through annual ABON meetings for this project. The last one, I believe, was in February of last year, where local knowledge holder, scientists, different managers can get together and talk about the issue and share ideas and thoughts and strategies. Also, we are planning on pursuing future research that dovetails off of this project by focusing on some of the specific concerns people had, particularly fish and water quality focus. And also, there's potential for other workshops and knowledge sharing events and there are other entities that do have some involvement in managing beavers. So, USDA APHIS has a nuisance beaver management program, and sometimes they will travel and teach tailored management techniques depending upon the region. The Alaska Trappers Association has some great resources online for folks that might be interested in learning more about how to trap beavers and also Fish and Game occasionally they offer beaver trapping workshops, and some of the folks that do that have expressed an interest in traveling to places where there's interest in a workshop, and there might be other workshops and informational sessions in the region kind of -- to be announced as they develop. And that's all I have, thank you so much for your time and I'd be willing to take any questions.

CHAIRPERSON BAKER: Thank you for that, Helen. Does anyone from the Council have any questions? Clyde.

MR. RAMOTH: Clyde Ramoth, Selawik. So, our migration of the (In Native), the beaver that went to Selawik area in the 50s, that migrated from the Athabascan country. And we learned how to make hats and gloves, and blankets, and seats and whatever. So, now the -- because of climate change there, way up in Coastal country, maybe Robbie Kirk could allude to that. But, I remember getting a call from Point Hope one year, individual asked how to kill a beaver, and I just said the same way you kill a seal. So, the migration from the south of Canada to Indian country to here and now northern. Is there any population studies? Cause there's a lot.

MS. COLD: Hi, thank you, member Clyde, for that. So, there is a lot of interest, both from Ken and the folks at the university that are looking at aerial imagery and also, us when we're working with communities with subsistence in learning more about how beavers are continuing to move into the Arctic, even past where we know the line of their presence is. So, yeah, I -- that's very interesting to hear a little bit more about Point Hope and if they have been seeing beavers. I know folks have been seeing them in the river basins around Kivalina and farther north. But it seems like it's really only a matter of time before they end up moving into the North Slope. So, we're kind of actively -- we're interested in hearing more from people in those regions as they start seeing beavers. And also, Ken and his team are continually looking at the aerial imagery, because it can be pretty easy to see some of those changes in the hydrology and even the dams and lodges themselves from aerial images. So, I guess, I'd say there's continued interest and people are trying to monitor the situation. But as they move farther north, those kinds of documented sightings of beaver are really important for folks in the region to share.

CHAIRPERSON BAKER: Verne, did you have something?

MR. CLEVELAND: Yeah, Vern Cleveland, Noorvik. I grew up in Shungnak and I knew -- I do a lot of hunting on beavers and stuff. But back then, there's hardly any dam. But right now, man, you go up there and everything's all dammed up. The fish can't go in to the

lakes, the hunters can't go into the lakes to hunt moose. It's pretty hard to get around cause of these beaver dams. Maybe we ought to put bounty on these beavers or hire some dam busters and start busting up dams on some of these creeks that we hunt. And the fish, sometimes when the fish come out, they're orange color from the -- - when they come out from the lakes cause of the beavers dam the creeks and it's -- I don't know if it's healthy or not but, man, if you get a beaver fever, man, it's no good feeling, I tell you that right now. But we gotta do something about these beavers, they're damming everywhere. They start damming up by our camp down here by Noorvik but the water is deep, and they just do some part but they can't dam that water cause it's too deep but it's getting pretty bad. We gotta do something about these beavers or it's just not some -- but we can't do nothing about it but if we do something, we -- someone should do something about it. Do some studies on it or hire some dam busters. Thank you.

CHAIRPERSON BAKER: Tristen.

MR. PATTEE: Through, the Chair. Tristen Pattee. I'm getting the same concerns in my community. And of course, I get comments from people in Shungnak, you know, then -- there is a lot of interest in looking at different option [sic] on managing the beavers. You've already mentioned to your -- into your -- in your presentation about the blocking of the moose, you know, the moose hunts and the whitefish, there's a lot of concern about that. Some communities, they pump water from -- they pump surface water rather than groundwater for their drinking. I know it gets treated, but still, there's still that concern. Another concern is the people swimming in the rivers, you know, so they're pretty worried about their health as they're swimming and that concern about the beaver. And then also when they're working on their fish, they -- you know, they pack water straight from the river in order to clean their fish and then there's just a lot of concern about the giardia. Thank you.

CHAIRPERSON BAKER: Clyde, did you have a follow up?

MR. RAMOTH: Yeah, thank you for the follow up. Giardia is a big subject, but my younger brother's gonna attend a meeting at Canada about beaver. He attended Alaska meeting about just beaver alone in Fairbanks last year. So, there's a follow up at Canada,

but I make a motion or something that we could study -- we get more numbers about the giardia, the effects of our fish, the water quality from federal and state agencies if they could put something in writing.

CHAIRPERSON BAKER: Thank you for that, Clyde. We'll make a note of that. Any – Mike.

MR. KRAMER: Yeah, through Chair. This is Councilman Kramer. Hi, Helen. I know there's always been a lot of concerns about beaver. You know, I've trapped some with my brother in the past. My brother traps a lot of beaver out of the -- off the peninsula. I know of a couple other beaver trappers within the region. They are having a serious impact, you know, to our -- to the Noatak, Kobuk and Kivalina River. You know, those are the main rivers that deal with salmon, trout -- Noatak trout, Kivalina trout and those are very, very main staple diet to people in these villages. And if these fish are starting, you know, to not be able to get to spawning areas that they used to, they're gonna start declining. And right now is the time to start doing something about it because, you know, our caribou are declining, our moose are declining, sheep are gone, you know, everybody starts to depend on other resources. It's time to start depending on some beavers and -- but they need to look at you know, major trout and salmon streams that Coastal and Kobuk, Noatak, Kivalina that depend on a lot of these fish for daily survival, regardless whether it's spring, summer, or fall or winter. I know a lot of people harvest fish up in the Noatak, same up in the Kivalina, I know they did trout studies. Back in the day when I used to sheep hunt, I went up to a place back behind the (In Native) Mountains that fingers off of the Eli, we ran into a dam there that was probably about 300 yards wide and about 10 feet tall, and I climbed up a stump and the water was level at about 10 feet tall over the regular stream. At that point, we went downstream cause we were trying to find some fish to eat, you know, instead of hot dogs or whatever. But it wasn't until we got about 6-700 yards below the dam where we were able to start seeing grayling, very few char. It was -- it's beginning to really impact a lot of the spawning areas for trout that are dependent on by a lotta [sic] local people. I know that, you know, a lot of people in Noatak are starting to get them. It's -- they're -- it's a constant battle; my brother gets about 50 to 60 of them right back here behind Kotzebue yearly. And it's like he's still not making a dent. You know, he continues to trap them back

here and make, you know, try to make a difference, but -- and provide first for his family and to sell. It's beginning to be pretty critical right now. You know, especially with char. I know a lot of people depend on char, dolly varden for their -- you know, year-round sustenance of fish. That's all I have, thank you.

CHAIRPERSON BAKER: Thank you, Mike. Tristen.

MR. PATTEE: Thank you, Chair. Tristen Pattee. My aana and, you know, her sisters and a lot of people in the community, they make hats and they make other, you know, mittens and different stuff with beaver and currently, you know, I help my aana order all these furs from Lower 48 from some area down there. And they're up here, they're everywhere. You know, and so I just see it as a -- an opportunity to make some income, you know, you have all these local artists that are making these beautiful fur hats and mittens, you know. So, I -- it's a pretty good opportunity. You know, it's -- maybe someone out there can potentially start a tannery that's local, and then all the local hunters will have somewhere to bring these things and you know, and that could be -- and also a potential educational opportunity to teach people how to cut up and, you know, prepare the fur to be tanned and then, you know, it kind of goes from there. It ripples from there, it's -- then you could watch the person how to make the hats. You know, it kind of extends everything, you know, teaches the younger generation what our culture is and keeps you warm in the winter.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: Yeah, it's me again, Kramer. You know, it would be good to start -- you know, I noticed NANA is starting to take part in some biology studies, other things like that throughout the region. I'd like to see NANA start encouraging local young youth that have finished high school and are going to college to start doing some biology, you know, and help them along, trying to get local biologists up here. Because a lot of these youth, you know, they're up and down the rivers, they're at camps, they're, you know, they're out in the wilderness a lot with their families and providing for their families. I think it would be a good step up for NANA and other organizations to try and see if they could put in a biology program to where it would assist students into becoming local biologists. And I think that would really help our region. It would be -- it

would also help knowledge; they'd be able to do presentations at schools. It's something that's needed, you know, we need local biologists. And that would be a good step up to start now and to try and get these youth into these biology class [sic] and become biologists. Thank you.

CHAIRPERSON BAKER: Tristen

MR. PATTEE: Tristen Pattee. And just to add to that -- and then that kind of helps with the population, you know, so that'd be a pretty good way to do that.

CHAIRPERSON BAKER: Clyde.

MR. RAMOTH: Thank you, Mike. So, our local school -- like I said for the record, I serve as the Chair for our local school council, but our drive is to teach our young ones about harvesting, trapping, how to get a trapping license, harvesting the beaver. And another economic part is, what to do with the beaver pelt, what to do with the meat, those kinda things. So, it's a ongoing thing, and I think we could encourage others to bring those knowledge, especially to like Fish Wildlife Service. Thank you.

CHAIRPERSON BAKER: Any final questions/comments for Helen on this presentation?

(No response)

Hearing none. Thank you, Helen. We appreciate that. I'm sure we'll have more questions that we'll send your way as things develop.

MS. COLD: Thank you, Mr. Chair, members of the Council.

CHAIRPERSON BAKER: Next on the agenda is the Kotzebue Sound commercial and 2024 subsistence season summary and 2025 outlook. Luke Henslee, are you available?

MR. HENSLEE: Yes. Hello, can you hear me okay?

CHAIRPERSON BAKER: Yes, we can. The floor is yours.

MR. HENSLEE: Great, great, thank you so much for having me here today. I'm gonna give a summary of last season's commercial and subsistence chum salmon fisheries performance and a little bit about what we expect for the upcoming season. Last year we opened commercial fishing periods on July 10th, as in regulation and the last scheduled fishery was conducted on August 8. There were two registered buyers. We began our management, as we typically do with sort of a pretty liberal fishing schedule with eight-hour periods, six days a week. When we saw the catch per unit effort that we would expect was not being met, we began to be more and more conservative as the season progressed. And that culminated in a final fishery opener in the fourth week of the fishery, and we didn't see the CPUE increase as we had hoped and the buyer pulled out on August 8th, which is three weeks before the regulatory closure date of August 31. The commercial harvest was 5,392 chum salmon, which was well below the average harvest. There were 24 permit holders that sold fish, which is, again, well below the average effort we see in the fishery. The price that was paid for chum salmon last year was $0.60 a pound which was $0.05 less than last year. And we had the lowest ex-vessel value of the fishery since 2002, and that year was driven mainly by a market availability.

Last year for escapement monitoring our Kobuk River test fish that we've been running for quite a while, we -- was discontinued due to budget cuts. We're currently exploring options to revive that project, but the last several years that it operated, it was really impacted by high waters. And we were pretty skeptical that the test fishery was able to really give us a good indication of the number of fish that were going past that site. The subsistence chum salmon fishery last year also had a lot of difficulties. A lot of that was due to high waters and heavy rain, along with late season sea ice remaining in the area. We kinda got some mixed reports from subsistence users with several, you know, putting in maximum effort and really not getting much. But we did hear a few reports of people that just kinda seemed to be in the right place at the right time, at least around the Kotzebue area, that we're able to get some fish. As far as communities on the river, on the Kobuk and the Noatak, again, it was sort of a mixed report. We heard from several people that they got the fish that they needed. And then we also heard from folks that that high waters were really making it difficult to reach those migrating chum salmon.

For 2025, this upcoming season, the outlook is normally based on samples that we take at the commercial fishery and the test fishery. We weren't able to get a lot of samples this season --this last season, because there just weren't a lot of fish. We were only able to sample three commercial openers for a total of 120 samples. So, we do have age composition of the fish that we sampled in those first few openers, but it's not necessarily a good indication of what that might mean for the upcoming season. We suspect that the -- that those weak runs that we saw last year were probably due to marine impacts on this chum salmon stock. One of the reasons that we suspect that is we also got reports from subsistence harvesters in Savoonga who harvest chum salmon that are genetically very similar to Kotzebue salmon, and they probably even harvest from Kotzebue salmon stocks. And they also told us that they saw very low fish numbers moving past their fish camps. So, we're really hoping that this low season was caused by marine conditions that impacted just one broodstock and hopefully we'll see those numbers rebounding in the near future. As far as the upcoming season we are expecting to probably see depressed numbers again. And we're expecting the commercial harvest to fall within the range of 50,000 to 150,000 chum. We plan to begin management the way that we typically begin in mid-July with openers to test run strength and obviously, this year will be a lot more in-tune to the indications that the run isn't doing as well as we expect so, we'll probably be a lot more likely to get conservative early on. As far as the market this season, we don't have a good handle yet on the number of interested buyers that will be showing up this year. We expect it'll be the same market as last year with two buyers registered to purchase chum salmon. But we have yet to hear final word about that.

We have plans to expand our research and monitoring efforts for the Kotzebue chum salmon stocks that have been hampered a little bit by recent federal actions. But those plans include ramping up our aerial surveys of the Kobuk and Noatak Rivers, which again have been hampered by high waters in recent years. We'll also be conducting some salmon genetic baseline sampling in headwaters on the Kobuk and the Noatak in attempts to build a more robust genetic baseline for these commercially and -- commercial and subsistence chum salmon stocks. We're also hoping to bolster our commercial catch sampling, which, of course, will be tied to the number of fish that we're able to harvest

in the commercial fishery. We're also looking at alternative methods for monitoring chum salmon passage in the Kobuk and Noatak in light of these recent high-water years and test fishing not really giving us the information that we would like to have to manage the fishery. We're exploring options to use sonar on the river systems. Like I said, a lot of those projects that we were hoping to get started this season have been put on hold but we will be keeping a close eye on fishery performance. We'll plan to travel to Kotzebue in the next couple months to conduct a fishery meeting which we did last year as well. As far as subsistence goes, we always really appreciate hearing from folks in the region on how they're doing with their harvest and what kind of observations they have about the river and about the fish. We have several subsistence users that will call in to our office and just kinda give us observations and those are always really helpful. We have Kathy Sherman in our office there in Kotzebue, and a lot of folks like to talk to her and tell her what they're seeing in the fishery and we -- we're constantly calling Kathy and asking, yeah, what she's hearing about what's going on.

There is an AYK, that’s a Arctic Yukon Kuskokwim finfish Board of Fish meeting this fall. I know the Advisory Committee in Kotzebue has a few proposals that they'll be submitting this year, although I don't know if any of them are chum salmon related. If folks on the Council or in the public have specific regulations they'd like to see, I would encourage them to contact their Advisory Committee, there in Kotzebue. The deadline is very close, it's April 10th, for those AYK Board of Fish proposals. And like I said, we really appreciate hearing from the resource users in the region. So, I'll make sure that my contact information is available to the Council to give us a call during the season or anytime you wanna talk about fisheries in Kotzebue. With that, I would be happy to take any questions.

CHAIRPERSON BAKER: Thank you for your presentation, Luke. Do we have any questions or comments? Mike.

MR. KRAMER: Yeah, this is Councilman Kramer, through the Chair. I -- you know, it's my concern, I see a serious concern about escapement. And you know, I think that the commercial fisheries need to partner with universities and local tribal organizations

to try and see if they could you, know, assist in funding and providing youth to help with these programs and these studies. My -- one of my questions is this kinda stemming from the major die off we had maybe 5, 6, 7 years ago. I know that, you know, a lot of salmon died back then, cause I remember -- I have a cabin up on the Kobuk, and the edges of the river was just coated with dead salmon, I mean, everywhere. You know, you could -- just the stench of rotting salmon were everywhere in the -- in -- one thing I noticed about them is a lot of them still had eggs. I know that when we pulled into Kiana, man, there was, like, millions of salmon there just pulled up right in front of Kiana where there was cold water, but none of them were going upstream. Looked like they made an attempt to, but you know, with the water being so warm, I kinda think it pushed them back to an area around Kiana for them to be in colder water.

One other thing that I'd like to know and find out and, you know, it would be good to have a study on and partner with some of the state universities and organizations is, you know, the impacts of high water. Does that -- do they spawn in high water creeks and streams -- excuse me -- and when the water goes down, I'm pretty sure it leaves a lot of roe, you know, dried up under the ice as the creeks and stuff fall, and they're -- a lot of them are not submerged in water so that the eggs would be able to hatch. That's one thing I would like to see that should happen is the -- you know, my main concern is escapement. I know they have a old sonar site up on the Noatak, and I know the one on the Kobuk. But that's one of my big concerns, is what kind of impacts are these high waters having on our spawning salmon in the streams? Thank you.

MR. HENSLEE: Yeah, Councilman Kramer, through the Chair. Thanks for that observation and your questions. And I think you’re right that we don't have a good understanding on how these high-water events really impact our stocks and the spawning grounds, but I would suspect that you're correct. There probably are some big impacts to spawning sites with these water events. You get big waters moving debris down the river, it creates a lot of changes to spawning habitat. And then, like you said, when water, you know, goes back to more normal levels, what does that do to the eggs in the winter? I think those are all really good questions. Just you know, inherently it is difficult to sort of observe how these high waters are influencing and impacting salmon stocks because trying to work around

those high waters or monitor escapements, either from an airplane or more traditional methods like weirs or towers, it simply complicates everything as I'm sure all of you on the Council know, when you're trying to harvest, or capture, or observe salmon in those conditions. So, I think that's probably a really important aspect of our dynamic environment right now to explore. As far as heating events, in the past and your observations of chum salmon struggling in the river pre-spawn, those are conditions we've heard about from other parts of the State, too and it certainly can have an impact on a stock's ability to return. We suspect that this recent return was low, mainly due to marine conditions. Just sort of because of the extent of the low return. So, it's certainly possible that we're seeing some influences from some warming conditions in the rivers. We believe that most of those impacts are coming from the marine.

CHAIRPERSON BAKER: Go ahead, Mike.

MR. KRAMER: Yeah, the other concern I had was, I know that we had one buyer, and they were kinda being picky as to who they were gonna buy salmon from. And that was the only one buyer here and there's people out there fishing, trying to put you know, money in their pockets and it seemed as if -- to me that I would see the discrimination. These buyers need to be reminded that, hey, there's a lot of people here who depend on these commercial fisheries to feed their families throughout the winter. You know, being discriminatory towards other fishermen who are trying to sell their fish when they're in their, you know, in their peak freshness, you know, that needs to be looked at. And, you know, these buyers need to be warned that says, hey, you know, everybody is here trying to make money. Everybody is trying to -- you know, here to try and ensure that the freshest, quality of chum salmon from our region you know, makes it to the buyer and then makes it to the processing plant so, I -- that's very concerning to me and I think that needs to stop. Thank you.

CHAIRPERSON BAKER: Tristen.

MR. PATTEE: Thank you. Tristen Pattee. I just had a question, I overheard you briefly talking about the proposal and is there -- would you be able to give an example of what is impacting you that the Council could potentially create a proposal that would help?

MR. HENSLEE: So, I think our biggest hurdle now is that we're looking for alternative ways to monitor these stocks. Like I said, our traditional methods of test fishing and aerial surveys just haven't been effective, mostly due to river conditions. And so, we're sort of at a place where we're exploring alternative methodologies. And as Councilman -- Council member Kramer mentioned, there was a sonar site on the Noatak in the early 90s, we're kind of looking into options like that. The thing about establishing, you know, a new methodology for monitoring these stocks is that it takes time and money to develop the projects. So, beyond the funding component, it really is just sort of an issue of having the time to sort of develop and explore these different options. So, I think just having the support of the Council to continue exploring these issues. I did see that one of the Priority Information Needs that your Council developed was to monitor more closely the escapement numbers of chum salmon on the Noatak and the Kobuk. And so, just having that language in the Priority Information Needs helps us to sort of go after the support that we need to conduct a lot of these projects. I -- it's -- it sounds kinda trivial, but monitoring a region this big really just takes a lot of people on the ground and you and the communities around Kotzebue, and on the Noatak and the Kobuk are a really good source of firsthand information. So, I -- like I mentioned before, we really like to hear your observations in-season. I know -- like I said, it sounds trivial, but it's actually pretty important to have folks that are on the ground looking at the resource, making observations. That actually goes a long way with sort of getting a handle on what's going on in a region so large. So, all that to say, I have a lot of hope for how we'll be able to expand our research and monitoring efforts in the future. And I think just having the support of the Council by having that Priority Information Need available goes a long way.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: Yeah, this is Councilman Kramer, through the Chair. I know that the OSM has a FRMP, used to be Karen Hyer and she did all the fisheries studies on the federal side. I think it would be good because it's really impacting our subsistence of chum salmon and local other salmon that we may get here. I think it would be a great partnership with, you know, the FRMP and OSM to try and see if they can help get

this funding mainly for escapement, to ensure that there's future subsistence salmon for future subsistence purposes and commercial purposes. And it would benefit both and with these, you know, with these funding, I think it would be a great partnership with UAA, UAF, NANA, and other entities that are willing to pitch in and try and see if we could you know, start monitoring our salmon and involving youth, involving universities and, you know, and other entities to try and see if we can try and get, you know, a good return, good escapement, good spawning. And it would also be very educational for our youth and community. Thank you.

CHAIRPERSON BAKER: Tristen.

MR. PATTEE: Yeah, through the Chair, Tristen Pattee. And yeah, just like you mentioned just before with you know, just trying to figure out some type of proposal. And I guess I could propose to the rest of the Council that we do write a letter for support your efforts in what you're doing and everything that you mentioned. So, while we have a quorum today, I would like to propose something like that.

CHAIRPERSON BAKER: Would you like to make a motion to do that?

MR. PATTEE: Yes. Tristen Pattee. I moved to create a letter of support to the -- to -- sorry, the Kotzebue Sound commercial and subsistence -- to Luke Henslee, fish -- the Norton Sound and Kotzebue assistant manager.

CHAIRPERSON BAKER: For clarity, what would you like to support? Is it anything specific.....

(Simultaneous speech)

MR. PATTEE: Support the.....

CHAIRPERSON BAKER: .....mentioned escapement, just so we have it for the record, for the motion.

MR. PATTEE: So, the motion is to support the -- their efforts to find alternate ways in order to -- for escapement, in order for them to you know, be able to do their jobs.

CHAIRPERSON BAKER: So, motion made by Tristen. Is there a second?

MR. KRAMER: Second.

CHAIRPERSON BAKER: Seconded by Mike. Any discussion so that we can have that on the record, Mike?

MR. KRAMER: Yeah, I don't know who's our -- who took over Karen's spot at OSM.

MS. HUTCHINSON: It’s Kevin Foley.

MR. KRAMER: Yeah, it'd be good if he was on the line, so we could you know, speak with him a little bit and see what the possibilities are. Cause, you know, salmon are a very critical part, along with char and other fish to our subsistence resources that we all provide for our families. And I think being in a partnership and maybe working with NANA, other entities and universities to try and see if we could you know, have a statewide program where escapement priorities are you know, taking place. You know, I think it's very unfair that, you know, these trawlers out there can waste salmon and such, and we can't you know, and these are under federal fisheries. I think it would be very helpful if we could you know, come up here, have a pre-meeting before the commercial fishing season, a meeting after the commercial fishing season, and have a lot of local people come in here and try and you know, maybe you guys could come up with some numbers with some escapement, how many fish were harvested and you know, local subsistence could say, hey, you know. Maybe in September or October, you know, after the -- postseason to -- for you guys to gather enough biological studies to ensure that we have future salmon stocks and -- for commercial and subsistence. Mainly subsistence cause -- I think it's not fair that, you know, these trawlers can harvest fish and waste them when your people on the Yukon can't even subsistence fish for their own food. That is not fair, you know, and that is not right. That's my concern as of right now. Thank you.

CHAIRPERSON BAKER: Thank you, Mike. Kevin, you're on the line, correct? If you are, you have the floor to introduce yourself and talk a little bit about the subject.

MR. FOLEY: Through the Chair, Council member Kramer, thank you for the opportunity. Yeah, my

name is Kevin Foley, and I live in Anchorage with my wife and two wonderful dogs. I've recently been assigned to your RAC as the Fisheries Biologist in the wake of Karen Hyer pursuing amazing endeavors. To your point about research and partnerships, I just wanted to put a plugin for an agenda item that's coming up later in our meeting. That is the Fisheries Resource Monitoring Program, where we will provide you with information on how to pursue research interests, including what we're speaking of here now. Anyway, I just wanted to say hello and share that with you all, and I'm available and on the line and listening intently. Thank you, Mr. Chair.

CHAIRPERSON BAKER: Thank you for that, Kevin. Any more discussion for this motion to make a letter? Tristen.

MR. PATTEE: Through the Chair. I just wanna -- Tristen Pattee -- just wanna make sure that we have enough justification for that motion.

CHAIRPERSON BAKER: OSM some staff, is that sufficient information or would you like some more discussion on that? Just to make sure the body of the intent is there.

MS. HUTCHINSON: Yes, and I had stepped outside, totally missed it. So, Brent, if you could come in. Thank you.

DR. VICKERS: Thank you, this is Brent Vickers, OSM. And I'll be honest, well things are going on and when a motion is made that I'm not expecting I kind of get like oh wait, what? But I do have a motion to support a letter to Luke Henslee in support of their efforts to find alternative ways for escapement. This is -- I guess -- and this is why -- I would had some questions. Are you supporting -- a letter supporting their efforts? Are you -- who is this letter going to?

MR. PATTEE: I totally missed where -- who he works for.

DR. VICKERS: Okay.

MR. PATTEE: So, and I don't see it, I was looking for.....

(Simultaneous speech)

DR. VICKERS: Yeah.

MR. PATTEE: .....what's written down here. And so, whatever his -- whoever he works for and to support whoever -- just whoever, yeah, just basically his company or his organization.

MS. HUTCHINSON: He works for Alaska Department of Fish and Game.

MR. PATTEE: Yeah, okay. So, then to them with attention to him to be able to support his efforts.....

DR. VICKERS: Okay, great.

MR. PATTEE: .....into the escapement based off of the lack of fish that has been in the area due to the high water and the -- and due to the -- because it's such a subsistence need and finding different -- finding alternate ways to be able to count the fish, I think it's very important in order for us to figure out ways to mitigate what's happening in our area, in our waters.

DR. VICKERS: Great, thank you. And just so I have this firm, you want to write this letter to ADF&G saying we really support this.....

MR. PATTEE: Let us -- just support their efforts, yeah.

DR. VICKERS: Great.

CHAIRPERSON BAKER: Specifically, I think it would be beneficial to say to the Nome Office.....

DR. VICKERS: Yeah, okay.

CHAIRPERSON BAKER: .....and where the Nome Office covers, which is Norton Sound and Kotzebue Sound, just so that we're not sending it to ADF&G in Ketchikan.

DR. VICKERS: Gotcha, yeah.

CHAIRPERSON BAKER: Supporting everybody's efforts, but just keeping it localized.

(Simultaneous speech)

DR. VICKERS: Lisa can figure the best place for that, I suppose, use a.....

MS. HUTCHINSON: Yeah, and I guess just wanted to remind that -- for the RAC that the -- this is an -- potential FRMP proposal and so it would often -- so, those proposals often include letters of support from the RAC. So, when the proposal is submitted, is that correct, Brent?

DR. VICKERS: Yes, and as both Kevin and Lisa just mentioned, is on the agenda. Hanna will be updating that the FRMP, there's been a -- the notice for funding opportunities we call it, just opened a week or two ago and we'll close -- I'm shooting off the top of my head in May, mid-May. So, this is the time for organizations to submit their project proposals. And then it goes in through the cycle for -- a competitive cycle for potential funding. And yes, as Lisa just mentioned, it's very important, one of the -- they have to -- these organizations have to be working with communities essentially, has to be an importance for subsistence and having a letter of support is a great way to bolster the application. I think a letter from support from the Council would be, you know, very nice.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: Yeah, the other reason why I'm looking at that is maybe possible -- possibly some funding and some assistance through the FRMP to see if they can, you know, find some funding to try and see if we could get this started. And I think the sooner the better. That way, we start getting our feet in the ground and up the rivers to start monitoring these and you know, we'll start getting some answers after the first several years of monitoring, you know, chum salmon in the Noatak, Kobuk. But, that's one of my concerns, is to see if we can provide some funding for subsistence purposes and also, beneficiary to the commercial. You know, basically it's just returns and escapement, and spawners, you know, spawning habitat and other stuff like that that could be monitored. See if we could pull some funding together through the FRMP, either be emergency or -- you know, cause it's very critical, salmon is very critical to our region. Thank you.

CHAIRPERSON BAKER: Would that be sufficient for justification, Brent?

DR. VICKERS: Yes, I think that's all good. Thank you.

CHAIRPERSON BAKER: All right. So, motion made by Tristen, seconded by Mike. All those in favor, please signify.....

MS. HUTCHINSON: Excuse me. This is Lisa, again, Council Coordinator. We just want to verify who the letter is going to for -- support for FRMP is oftentimes good to also send it to OSM and for the -- and also to the Fish and Game. But we need to clarify who we want to send it -- if you do, send it to ADF&G who to send that to in leadership, to the commissioner or -- thank you. Unless, you know.

MR. PATTEE: Can we send it to all three? Would that be -- you guys tell me.

CHAIRPERSON BAKER: I think if we -- if staff can just point out what the typical process is of who we should send it to. But basically, the intent is to send this to Luke, to get support for the work that Luke is doing. So, if we could just add in there that we're sending it to Fish and Game, we're sending it to OSM, we're sending it to whoever for this specific project area. Brent

DR. VICKERS: Thank you. Yeah, I -- Brent Vickers, OSM. I just wanted to say that I think it’s a good idea to send it to ADF&G to let them know that you're supporting this and sending it to OSM would be a letter that would accompany a potential proposal if they come out as saying we do support this. We know that they put in a proposal for FRMP funding and we support that project. Not knowing where all funding source is coming, not knowing offhand if they have FRMP -- have plans to put in a proposal for FRMP funding, it's definitely good idea to let his bosses know that you guys like the project. Thank you.

MS. WESSELS: Mr. Chair.

MS. HUTCHINSON: Thank you.

MS. WESSELS: Mr. Chair.

CHAIRPERSON BAKER: Yes, please go ahead.

MS. WESSELS: This is Katya Wessels. Sorry, I'm cutting in front of the other person with the hand up. But I just want to say, you know, it can also be a general letter of support sort of to whom it may concern, or maybe two letters, one letter to the ADF&G leadership letting them know that you support this project and a second similar letter. So, just the general support from the Council for the project. So, this way, the person who is doing the project can just have it and, you know, attach it to their applications for funding wherever the source of funding is going to be. Thank you.

CHAIRPERSON BAKER: Thank you, Katya. Luke, did you have something you wanted to add?

MR. HENSLEE: Yes, thank you. I just wanted to quickly say that we were working really closely with Karen Hyer to -- mainly to develop that PIN so we could put in for FRMP funding to monitor chum salmon. So, that's -- that was sort of our motivation for bringing that Priority Information Need to the Council. In the last two meetings, I gave sort of background on the motivation for that PIN. And then earlier Council member Pattee asked me sort of specifically what would be most useful from the Council. A lot of times these FRMP projects reviewers like to support and give funding to projects that they, you know, know are going to be effective which is rightfully so. That makes it more difficult for agencies looking for funding to sort of develop, you know, untried and unproven methods. It’s often difficult to actually secure funding to sort of develop novel approaches to old problems. So, for example, we -- we're really confident in securing funding from OSM to continue a long-running project. It's more difficult to get their attention and their approval when you submit a proposal that looks to sort of establish novel methodology and sort of do feasibility studies. So, I might recommend that in your letter, you sort of perhaps acknowledge that dynamic conditions in your region are sort of making it necessary for us to pivot from traditional methods and could require some feasibility work to look at different ways that we could effectively monitor these chum salmon populations. Thank you.

CHAIRPERSON BAKER: Thank you for that, Luke. Any further discussion? Tristen.

MR. PATTEE: Through the Chair, Tristen. So, okay, thank you. So, we will -- we should be able to add that into the letter everything you said. Right?

CHAIRPERSON BAKER: Lisa is madly typing away so, yes. Any further discussion? I feel we have good justification, know who it's going to be sent to. So, everything clear for staff?

MS. HUTCHINSON: I'm getting yes, no nods. Yes, yes, is very clear, thank you. Okay, we can go ahead with the vote, thanks.

CHAIRPERSON BAKER: All right, all those in favor of submitting these letters of support, please signify by saying, aye.

IN UNISON: Aye.

CHAIRPERSON BAKER: And those opposed, same sign.

(No response)

With that motion passes, we will get that letter drafted. It is now 10:19 a.m., I'm going to recommend that we take a 15-minute break. When we come back, we will just pick it up with Kevin with his FRMP report on Sheefish Coastal Movement Study. So, it's 10:20 a.m., we'll come back at 10:35 a.m.

(Off record)

(On record)

CHAIRPERSON BAKER: All right, thank you everyone, it is now 10:35 a.m. We're going to get back on track. Kevin Fraley, if you are prepared and ready, the floor is yours.

MR. FRALEY: Thanks, can you guys hear me okay?

CHAIRPERSON BAKER: Yes, we can.

MR. FRALEY: All right, I'm gonna try to share my presentation here.

(Pause)

Okay, can you guys see that okay?

CHAIRPERSON BAKER: Yes, we can.

MR. FRALEY: Cool, yeah. Well, thanks for letting me present today. Thanks to the Council and the Chair. My name is Kevin Fraley, I'm a fish biologist for the Wildlife Conservation Society, I'm based in Fairbanks. And today I'll be talking about a study looking at sheefish movements in coastal distribution. This was partially funded by the Fisheries Resource Monitoring Program. So, excited to be bringing some results back to the Council, which is guided the Priority Information Needs and that sort of thing for this funding. So, a little bit about my organization, the Wildlife Conservation Society. It's a global nonprofit research organization; the goals are to conserve wild places and wildlife through research and outreach. We have a small office in Fairbanks, a few -- a couple social scientists, a mammal and bird ecologist, I'm the fish biologist, and I've been there for about five years, and we have some other staff as well, but there's offices around the world for our organization, but headquartered in New York.

So, I'll jump into the talk here. So, a little bit of background on this study, the WCS, my organization here has worked with Native Village of Kotzebue, the National Park Service and Fish and Wildlife Service, coordinated with all those partners to do lagoons monitoring out in Cape Krusenstern National Monument, and in other areas in Northwest Alaska there starting in 2012. And so, that usually entails going out each summer, a couple times a summer to check on fish abundance and fish diversity at different lagoons. And throughout this work, we also conducted some interviews of subsistence fishers in 2016 that included Cyrus Harris, Chuck Schaeffer, Johnson Stalker and others and things we were hearing from them. And also, reading about in the Bob Uhlés journals, where the sheefish were becoming maybe more abundant out on the coastal areas, maybe traveling further and further away from the main rivers where they spawn, which is the Kobuk and the Selawik. And so, the, you know, the Northwest Arctic Council had some Priority Information Needs that related to this and so, we put in for an FRMP project. But those main Priority Information Needs back when we put in in 2022, where changes in grayling, dolly varden, and sheefish populations related to climate

change and identifying spawning areas, critical habitat and range expansion of whitefish and other species. You know, we know a lot about what the sheefish do in the rivers when they're going up to spawn, but there's a lot less known about what they do along the coast. They show up in these lagoons, subsistence fishers catch them in various coastal communities. But we don't necessarily know, you know, which rivers they're coming from, how far up and down the coast they're going and kind of what their ecology is in that habitat.

So, that was -- the goal of this project, is to sort of dive into some of those questions. This is -- this picture here shows a sheefish caught in Kotlik Lagoon, which is you know, up around the horn of Cape Krusenstern, you know, a few dozen kilometers up north there. And we regularly would catch sheefish sometimes good size, like this one, you know, as far north as Kotlik Lagoon, which was -- it's kind of outside the known or the published distribution that Fish and Game and the book Fishes of Alaska has shown sheefish being in Northwest Alaska there. So, we thought it'd be a good opportunity to update sort of the coastal distribution of the species too, because it seems like maybe their distribution is changing with warmer waters, longer summer seasons, they're able to go further up and down the coast.

So, that's the background of the study. I'll go into -- so there's kind of four parts to the study we -- and I think we kind of attacked this from a really cool way. So, we conducted some interviews of Northwest Alaska subsistence fishers around the coast to see where they were seeing sheefish, and also, went through some of the key traditional ecological knowledge literature to see what information was in there that might relate to these sheefish coastal movements. We also looked back through all our data from 20 -- 2012 to 2024 of the lagoons monitoring, you know, all the fish that we were catching out in Cape Krusenstern National Monument and other places, and we looked at the Alaska Department of Fish and Game's Anadromous Waters Catalog, which is a database that lists you know, all the anadromous fish, like sheefish that are found in different rivers and lagoons and that sort of thing. You know, it's not complete coverage, but there's a lot of good information in there.

And then the main study that was funded by the FRMP was using satellite tags on sheefish to look

and see where they were going, what water temperatures they were traveling in, and what depths they were diving to. And finally, we looked at otoliths, which are the fish ear bones of different sheefish, to see what habitats they might be using throughout their life. So, I'll explain each of those a little bit more as we go along here. So, for the first part, the interviews of subsistence fishers, we interviewed folks that fished near Kotzebue, Sisaulik or Anigaaq. Sorry if I mispronounced those, it's not -- I'm not the best with the name pronunciations. We went to Kivalina, Point Hope talked to folks in Buckland. Didn't make it down to Shishmaref, but there's some information from some of the TEK literature that shows that the white -- the sheefish are showing up down there. For the TEK literature, we looked through Bob Uhlés' journals. Many of you are familiar with Bob Uhlés who is a subsistence fisherman in Cape Krusenstern Monument there for many years, and he kept these really great journals with lots of ecological observations. And we also looked at these three studies or TEK publications listed there about sort of how people fish, what species are around, that sort of thing. That photo there is from our visit to Point Hope in 2023, where we conducted some of these interviews.

The other part, part two, was looking at all our fish monitoring data. I won't go into all the places we visited there, but you can see the different years that we visited different lagoons and locations and studied fish. And we looked at the Anadromous Waters Catalog and lagoons and coastal rivers from Wales to Point Lay. The satellite tagging portion. So, we use two different tags as seen on the photo there, one of them was solar powered and the other one was battery powered. The solar powered ones didn't work too great, as you might expect, because the fish spent a lot of time under the ice and its dark all winter so, the battery powered tags ended up working better, but we wanted to try both for sheefish. They attached to the back of the fish, as you can see on the right-hand photo there. And they will basically ride along with the fish for up to maybe a little over a year, depends on what we set them for. Then they pop up to the surface of the ocean or the river, or wherever the fish is, and they transmit all the data that is collected.

These are where the -- where we tag some of the fish. So, we tagged one out in Krusenstern Lagoon, we tagged quite a few out in front of Kotzebue there in

the ice fishery in April 2023, and we tagged four up in the Upper Kobuk on the spawning grounds in September 2023. And then set all their pop-up dates from a few months in the future to a year in the future to gain data and that would get transmitted back to us. There's some photos from some of the work from Kotzebue and the Upper Kobuk that's near (In Native) Creek, I think, or near the Selby River, maybe. That September 2023, the water levels were super high, so it was difficult to catch the sheefish, but we did get a few enough to put our final remaining tags on, and we did a outreach and awareness campaign around the satellite tagging. So, we went on the radio there and Kotzebue, posted lots of flyers, as you can see on the right there, and gave updates periodically to local contacts and subsistence bodies like the Council here.

And then the final part was this otolith microchemistry, so we collected otoliths, which are the fish ear bones shown on the bottom left there in that photo from 15 sheefish -- 14 sheefish actually from some of the Cape Krusenstern lagoons. And then we collected five from the Kobuk River spawning area and three from Selawik River spawning area, or actually Fish and Wildlife Service did, and we borrowed their otoliths to sort of calibrate our later testing where we were gonna try to assign the river of origin from the fish that were caught out in the lagoons. And basically, this microchemistry technique, you can run a laser across the otolith after it's been ground down and polished. You look at strontium isotopes and you can tell if the fish has been in freshwater, brackish water or marine water throughout the course of its life. Each of those rings that you see on the bottom right photo are basically winters that a sheefish has spent, so you can see what habitat they were in during different years of their life.

I'll get into some of the results, still a little bit preliminary, but we got some good data here. So, the black stars on this map show places where we talk to subsistence fishers and they confirmed that they had found -- they had caught sheefish in these places. So, you can see all the way north to Cape Thompson. People from Point Hope had been catching sheefish, you know, infrequently, but here and there. Likewise, in Kivalina they show up sometimes, folks we talked to in Buckland, the sheefish come into the river mouth there fairly often. And then the TEK publications that we looked through for the Shishmaref area talked a

lot about sheefish that were caught, especially near the Serpentine River, you can see that black star there. The white stars show places where we did lagoons monitoring. So, we were actually out there in the field catching fish and those are places where we collected sheefish, they were observed as well as these are -- there's some data from the Anadromous Waters Catalog, particularly on the Serpentine River here, those white stars that's from ADF&G's data.

These are where our satellite tagged fish popped up from. We were kind of hoping that some might, you know, be popping up way along the coast, that sort of thing, so we could get information on those coastal movements that we know what happen, that do happen. But pretty much all the fish popped up in Hotham Inlet, Selawik Lake there and a few upriver. So, we had 16 tags that popped up, which was a good reporting rate. We put out, I think, 23 tags, and most of the solar powered ones did not pop up, I think we had four or five of those. And then in addition to the 16, there was two tags that were actually -- there were subsistence fishers that caught the fish, and they returned the tag to us for a reward, and we were able to get really good data off that. Here's an example of one of the fish. So, a subsistence fisher in Noorvik, who was doing some under-ice gillnetting for the school there caught one of our satellite tagged fish and was able to mail that to us. We got all the data off it and we sent back a reward to the fisher. Hope to get some information back to him and the community as well.

Here's an example of the satellite tagging data. This was a fish that was tagged through the sea ice in April 2023, and then this is the one that actually was caught by a subsistence fisher in Kiana in June 2024, so we got really good data from this. The main things to look at are the blue levels. So, that's the temperature that the fish is experiencing, and that's in Celsius. One of the interesting things we found was that some of the sheefish were spending time in temperatures that were below zero degrees Celsius, so that means they were under the sea ice in saline water that can drop down below zero degrees, whereas like in the freshwater and the rivers and lakes, you'll never see temperatures that go below zero degrees Celsius. So, it was interesting to see that they could put up with those sort of really cold temperatures for extended periods. The black data there, that shows diving behavior of the sheefish, and we found that some dove

down as far as like 25 meters, which is about 80 feet. We were looking around and talking to Bill Carter with Fish and Wildlife Service about where they might be finding depths that deep, because most of the places are pretty shallow, but maybe near Pike's Spit, this is where some of the fish were going deep, chasing herring and that sort of thing in the winter. So, we're working through more of that data. We have, you know, data similar to this for all the fish that we satellite tagged and that reported back.

For the otolith microchemistry data, we were able to assign basically the river of origin for fish that were caught out in the lagoon. So, we caught sheefish in Aukulak Lagoon, Krusenstern Lagoon and Kotlik Lagoon, and looked at those otoliths, looked like 71% were coming from the Kobuk River, 29% from the Selawik. So, there's fish that are coming from both those populations that end up out in those coastal lagoons. We looked at that green area that's shown on the figure there on the left. That's called the natal region. So, that's basically the water chemistry of where they were born, to be able to tell which river they were coming from. And that top chart up there shows over the course of one fish's life, just an example fish, which habitats it was in. So, the data that's sort of at lower values it was from when the fish was in freshwater. Estuarine is sort of in the middle there between the two gray dashed lines and then when the fish was in a marine environment that's up a little higher there. Those vertical lines show every year, basically, in this particular fish's life, it was a 20-year-old, 20 plus year-old fish. And so, we can get kind of some cool information about what they were doing throughout their life, what habitats they were spending time in. We have that data for 14 fish, maybe a few more, and so we're working through that as well.

Some of the main conclusions from the study. So, it seems like these satellite tags and the otolith microchemistry are pretty useful tools for studying the sheefish movements and they were really well complemented by the local observations and TEK. The tags -- the fish gave back pretty good reporting rates, with the tags better than many other studies from Alaska, so that was great. And it seems like we can piece together different habitats pretty well, from the otolith microchemistry to see when the fish were in freshwater, brackish water or saltwater. And then, you know, one of the main takeaways was that sheefish from

both the Kobuk and the Selawik are traveling the coast and entering those lagoons and river mouths to feed and grow during the summer. Seems like the majority of them are originating from the Kobuk to that northerly direction in Cape Krusenstern, at least the ones that we looked at. We did note that -- so, one of our fish that we tagged was actually trapped in the Krusenstern Lagoon in the Tukarak River all winter and it survived, and it returned back to Hotham Inlet the next spring, which was cool. You know, we know that grayling can live in those river systems, but the conditions under the ice get pretty harsh and so, it was neat to see that a sheefish was able to survive that winter under there and then return back to the main area in Hotham Inlet. And as I talked about, the different water temperatures and depths that they might dive. So, yeah, it seems from the data here, from what we collected from folks and from the TEK publications, that the species appears to have expanded their distribution since the 1990s, where Fish and Game on their species profile map, they show kind of a more limited distribution of the fish along the coast and that's same with the book Fishes of Alaska. Based on what we saw or what we found, it seems that these Kotzebue origin sheefish are now found as far south as Shishmaref and all the way up to Cape Thompson in the north. Obviously, out in the southern and northern edges of that range there's fewer of them. So, this -- a similar study design to this would be useful to examining sheefish movements in the Yukon-Kuskokwim Delta or the Mackenzie River Delta, the sheefish there do similar things.

That's about it, I won't touch on this too much, but we have some upcoming work in the region that folks might be interested in. Thanks for listening. These are our project partners and contributors, so Fish and Game, University of Alaska Fairbanks, the Native Village of Kotzebue, Fish and Wildlife Service there in Kotzebue, the National Park Service and the Wilderness Society all contributed greatly to these results in different parts of the effort. I have a bigger or a longer presentation coming up in -- on April 28 at the Northwest Arctic Heritage Center there in Kotzebue with this information and more so, please consider checking that out. Hopefully there’ll be information about that spread around on social media and the radio. And that's all I have, if you have any questions, you're welcome to ask them to me. Thanks for the opportunity to present today.

CHAIRPERSON BAKER: All right, thank you, Mr. Fraley. Any questions or comments? Clyde.

MR. RAMOTH: (In Native) So, in scientific terms, how do you spell out sheefish? Because Selawik means a place of whitefish, sheefish, it's s i i, and Bill Carter know here. So, part of my question is that studies that are being done with the sheefish, I know they're sweeter and fatter in the coastal area during the springtime, and when they travel and spawn at the Selawik River, were they get thinner and not so sweet. So, I heard the fact that there's multiple studies being done, are those shared through reports?

MR. FRALEY: Thanks for your comment, Council member. So, with the -- this particular set of studies that we're working on, we'll be planning to put out a report which will -- we actually, we've provided a report to OSM for the FRMP part of this project. But you know, we -- I plan to have the presentation in Kotzebue, April 28 to go over more of this information. And we certainly plan to, you know, publish, hopefully a scientific article with all the information. Any suggestions that folks have for more outreach, we're really welcome to -- or open to that. If people want us to do presentations or get information out, such as brochures, posters, that sort of thing, just feel free to reach out to me and we can make something happen with that. Be glad to share those.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: This is Council member Kramer. I know that in the past, we've pushed Karen Hyer and the FRMP to continue to study sheefish for the long run. You know, now that the salmon fisheries are dwindling and low numbers are returning, people are depending on more sheefish. And we're looking at, you know, possible ways to start conserving sheefish. One other way I think that would be pretty great to be able to monitor where a lot of these fish are coming from during the winter months underneath the ice is, you know, install some small plastic tags, whether they're colored or numbered and, you know, when they're caught, they could go ahead and pull the tag out and then return it. And with a piece of paper that says where it was caught and that would be a lot of good information, cause a lot of the fish that you guys study are under the ice. And that would be very beneficial to understanding where a

lot of these fish come from, especially out here in Kotzebue Sound. I know a lot of times people will go out and fish out in front of Crowley tech center throughout different times of the year. Kind of a hit and miss thing, but that would be a very good study to continue. And the reason why I wanted to continue to be studied was because of the big sluff that we had up there in Selawik, on the Selawik River. And I know that the last several years that they were starting to notice a small fluctuation in 11-year-olds spawners, females, you know, they returned back to the Selawik River. But sheefish are very staple of every everyday diet here, a lot of people bring sheefish down to Anchorage to other local people who moved down to Anchorage to fulfill their Iñupiaq food diet.

I think this study needs to continue for years to come because sheefish are very, how would you say? A temperamental breed of fish. And it takes them 11 years to be able to spawn for their first time. And their, you know, their lives are very, how would you say it? I know that sometimes when people would catch them by fish rod and reel and then let them go, and then, you know, that would -- some of them would actually die just from that type of handling. But I think it would be very beneficial to go ahead and continue to study into the future, cause we do only have the largest sheefish stock in the world. And I think it would be good to always keep it healthy, because a lot of people are starting to depend on them when there's no sheefish. And eventually, hopefully, you know, we could get the trout nipped and they start bouncing back and start providing a lot of trout up in the Noatak and Kivalina Rivers to continue to have good stocks. But it been [sic] a very beneficial thing throughout the year when they're under the ice would be, you know, insert some tags near their fin that are just a small plastic one, and you guys can distinguish colors on them for different runs, you know, the Selawik run and the Kobuk run and people catch them and they could bring them to you and say, hey, I got this one in November out in front of Kotzebue, you know, and turn it in and maybe get some kind of a little reward. But it'd be great to know where a lot of these fish are coming from. (Indiscernible).

MR. FRALEY: Through the Chair, if you -- if it's okay to respond, I'd love to -- yeah, mention something about that.

CHAIRPERSON BAKER: Yeah, go ahead.

MR. FRALEY: Yeah, I think that's a very good idea. You know, we don't know much about the harvest impacts maybe for the ice fishery and, maybe the survival of the fish if they're being let go. So, something like that -- the tagging study you mentioned would not be particularly expensive, and you might get some really interesting information, and you could use different tags for different years the fish might be caught and then see how they survive and where they end up. And it would be a really cool way to involve the community. So, I think that's a great idea.

MR. KRAMER: So, with this satellite tagging you could tell me where the hot spot is right now to fish in the lakes, huh?

MR. FRALEY: Yeah, well, all our tags have now popped up, but I think everybody knows that the hot spots are just right out in front of town there, right, so.

MR. KRAMER: Everyone starts going out fishing when the daylight is getting longer and longer. So, thank you.

CHAIPERSON BAKER: Clyde.

MR. RAMOTH: Clyde Ramoth, Selawik, for the record. I know for Selawik we really appreciate the hard work that Fish and Wildlife Service does and other agencies about otolith, age of the fish, the -- where they migrate, the health of the fish, the population. I know it's always a concern because Selawik means a place of sheefish, that's how we got our English name. But we got five species of whitefish and wherever we've been -- I was wondering about, that's always a concern about the warmer climate, the spawning areas, all those kinda studies are really important, and when they consult with us, with like TEK it's always good. And the movements because the fact that right now, this time of the year, the fattest and best tasting sheefish is from Kotzebue, but later on it'll be in Selawik Lake, which is a 15-mile-wide by 10-mile-wide long lake. But people from all over the region fish there. But I'm always appreciative about the movement and the coastal concerns that we have for Selawik River area.

MR. FRALEY: Thanks. Through the Chair, if I might respond to that.

CHAIRPERSON BAKER: Yes, go ahead.

MR. FRALEY: You noted the other species of whitefish as well. So, one thing I forgot to mention is that we do have quite a bit of the otolith microchemistry data, also from humpback whitefish, least cisco, some bering cisco, and some other species like herring and grayling too. So, we hope to work through that data and just continue to gather information about what the fish are doing throughout their lives and what habitats they might be using. So, hopefully we can find some interesting things to report back to the community with.

CHAIRPERSON BAKER: Any more questions, comments for Kevin Fraley?

(No response)

Doesn't look like we have anything else. So, Mr. Fraley, thank you for your time and we will move on to our next presentation. Since we kind of touched on it through this discussion, we're going to hear from Dr. Michael Carey with an update on research with thawing tundra, rusting rivers, and effects on aquatic ecosystems.

(Pause)

Michael Carey. Are you on the line?

MR. CAREY: Yes, I'm here now. Sorry, I've just -- was listening, I thought I was going after lunch, but I'm.....

MS. HUTCHINSON: Yeah, sorry, I wanted to apologize. This is Lisa, yes, I apologize. I gave you the wrong information. So, if you're ready, this would be good or we can.....

(Simultaneous speech)

MR. CAREY: No, I'm ready to go. I'm sorry, I just had mute on, and took me a minute to get organized, so I would welcome the opportunity. Can I share my screen?

MS. HUTCHINSON: Great, thank you. Yes, you can.

(Pause)

MR. CAREY: Are you able to see the presentation?

CHAIRPERSON BAKER: Yes, we are. You have the floor.

MR. CAREY: Thank you. So, thank you for the introduction. Sorry to be a little clumsy there at the start, but I'm Mike Carey. I'm a research fish biologist at the USGS Alaska Science Center, and I'd like to kinda give an update here on our project on rusting rivers. Where we're trying to understand some of these metal seeps from thawing permafrost. And while I'm giving the presentation I just want to -- there's a lot of people I'll acknowledge as we go through, and some of those are the principal investigators like John O'Donnell with the Park Service, Josh Koch, who's also with USGS, and Brett Poulin, who's with the University of California, Davis. And I'll be talking a lot about permafrost here, so before I get too far, I just wanna talk -- put out the definition of permafrost or the way I'm thinking about it. In that permafrost is any ground that remains below zero degrees Celsius for at least two years straight. So, here on the left, we've got kinda the classic image of permafrost, where we've got that active layer that freezes and thaws each year and then below that we have the permafrost that stays frozen. This particular image has an ice wedge in it, but you don't need ice to have permafrost, you just need any frozen ground. And then the map on the right is showing the probability of near-surface permafrost, and you can see as we move from south to north, as you would expect, we get more near-surface permafrost as we go up. And this work has been primarily happening in Northwest Alaska, which is why I would -- it'd be great to speak with everyone here about it. But the reason that a fish biologist such as myself is talking about permafrost is because permafrost differences can influence rivers and streams. It can alter groundwater flow, river hydrology, the availability of carbon and nutrients, and different permafrost characteristics can kinda influence -- the landscape differences can influence the river scape. You know, when I say permafrost characteristics I’m talking about differences in the soil texture, the amount of ground ice in different places and just the amount of permafrost in different watersheds can have a big effect. As an example, if we look at the figure on the

left where you're thinking about water coming off of the landscape and coming into a stream, you can think about water, whether that's precipitation or snow melt running across the surface on that green arrow or infiltrating a little bit, but having a shallow subsurface flow path coming into the stream which would be the brown arrow. And you could contrast that with the image in the middle, where now this particular watershed has a much deeper flow path, so there's some water that's infiltrating even deeper. That could be due to permafrost thickness or differences in extent. But if you compared and contrasted these two, you would imagine you might see differences in stream discharge, you know, the timing and quantity of water coming through, you can see differences in water temperature, and differences in flux of the carbon and nutrients coming in into these systems. So, my group has been working on trying to understand how some of these permafrost characteristics influence streams. And just to give an example, going with temperature, we found some interesting relationships, if we look at the amount of permafrost coverage here on the x axis and then stream temperatures, and this is showing that the more permafrost that we have in a watershed, the temperatures actually in July are warmer in those systems. And the reason for this, we think, is that when there's a lot of permafrost, then the water is kinda staying higher on the surface and not going very deep, where when you have a lot of -- when you have less permafrost and more deeper flow paths coming through, you can see the image on the right. Those deeper flow paths are supposed to be bringing in the colder water. So, when you have less permafrost or deeper infiltration, we get colder temperatures coming into that system. So, is kind of -- an interesting thing is if you think about warming you might think about everything's warming, but if we're getting more, deeper flow paths, we could actually have cooler water coming into these systems. I wanted to use -- bring this example in cause I wanted people to know about some of the water monitoring that we've been doing with -- on National Park lands in a lot of headwater streams and some bigger systems, not a lot of mainstem, but we've been monitoring water temperatures for -- we’re almost up on a decade here, in different places. And hopefully that is available in a lot of USGS data releases and should be available through the AKTEMP database.

The other thing on temperature that we've been thinking about is interac -- is the interaction between changes in permafrost and the range

expansion of beavers. I believe there was a speaker earlier that was talking about the ABON project, unfortunately, I missed that talk. But, wanted to mention a little bit about this, where we're looking at the interaction of beavers expanding and how that influences temperature, because when we look at temperature in the beaver ponds and temperatures in some of these streams, we see that the beaver ponds have warmer water in them relative to the mainstem. We're curious what that means for the fish, what that means for the river ecosystem overall. And it's not too hard to imagine, you know, the water that becomes held up in these impoundments, you know, gets warmed up with all of this solar radiation. This arrow is pointing towards one of the temperature loggers that we have.

Now the other project that we're working on related to beavers, and I was asked to kinda just mention this. It's kind of an aside, but I just wanted to put it out there that we have been looking at some of the beaver impoundments as disease vectors thinking primarily about giardia. And giardia, you know, is routinely higher in Alaska residents than the rest of the United States. And you can get these infections from giardia or other things like cryptosporidium by contaminated drinking water. So, Christina Ahlstrom has been leading this project where we've been out in a lot of the beaver ponds in Northwest Alaska. And you can see the figure on the left here is showing.....

(Simultaneous speech)

MR. CAREY: Yes.

CHAIRPERSON BAKER: This is Chair Baker. Would you mind making it actually full screen? We're having a little bit of difficulty reading it in the room here.

MR. CAREY: Oh, I'm sorry, which.....

CHAIRPERSON BAKER: Right.

MR. CAREY: Go ahead.

CHAIRPERSON BAKER: We're on the presenters view at the.....

MR. CAREY: Oh.

CHAIRPERSON BAKER: If you could make it full screen.

MR. CAREY: Yes, I'm sorry, that's.....

CHAIRPERSON BAKER: Just noticed a couple people walking up and squinting at the screen, so.

MR. CAREY: Yeah, is that better?

CHAIRPERSON BAKER: No.

MR. CAREY: Sorry.

(Pause)

Any better there?

(No response)

I'm gonna stop sharing and start over again.

MS. SWEENEY: Hi Mike. This is Brittany Sweeney, for the record. Just there's a suggestion in the room here that you might have two monitors or two screens. And so, when you select your screen share, if you share from the other one, we won't see the presenter mode. We'll see the public mode.

(Simultaneous speech)

MS. SWEENEY: I don't know if that helps but thank you.

MR. CAREY: It does, that's exactly what I'm doing wrong.

(Pause)

MR. CARTER: Hey, Michael, this is Bill Carter. So, start your presentation before you share your screen. That looks -- oh, that's -- is that the PDF? No. That looks good.

MR. CAREY: That look better?

MR. CARTER: Yep, that's it.

MR. CAREY: I apologize for wasting everyone's time.

CHAIRPERSON BAKER: Not a problem. We can see it pretty good now, so you may continue.

MR. CAREY: Thank you. Yes, apologies again. So, I think I was just talking about giardia sampling that we've been doing, this has been run by Christina Ahlstrom. And a lot of this is preliminary, but we have discovered giardia in a lot of the ponds and we're trying to understand what that means for those being moved around and chances for people to get sick. So, I just wanted to make sure everybody was aware of this project. But what I really wanted to talk about today -- I'm having a lot of technical difficulties -- is the Rustling Rivers Project, and this project got started while we were working on permafrost in general and goes back to some work we were doing in Kobuk Valley in 2017. And when we were there, we were using this small tributary to look at differences in permafrost, and when we came back in 2018, everything had turned orange. And we were kinda surprised by that, but we thought it was just sort of this anomalous event. But in 2019, we were in the Agashashok River and we saw this much bigger plume coming into the North Fork of the Agashashok and we were starting to really think like, oh wow, what could be going on here? And so, we started to write some proposals, get some money to get things figured out, and we were all poised to go back out in 2020 but then Covid hit, and we weren't able to do any fieldwork, we weren't able to do any fieldwork in 2021 either. But when we returned in 2022, as we were coming into this site it looked like it had been burned, like there had been a Tundra fire. But when we actually got on the ground, we could tell that it was the water that was seeping through here that was killing all the vegetation. And when we measured that water, the pH was down around 2.3, total dissolved solids was super high, and you could see that that -- it was the seep that was killing all of the vegetation. And here are some other spots that we saw, this is -- I don't know, the video is playing, but here is the (In Native) coming into the Alatna. You can see all the water -- impaired water coming down really changing the water quality of this. It's all hazy from forest fires nearby. We can just see all that water quality has completely changed as you go up the watershed, it's just impaired all the way up.

Another example, in the Ignning River, you can see this small tributary coming into the Ignning of Gates of the Arctic. And just all this impaired water is getting dumped into that pristine water. So, we also had all of these observations that we had made, and we started talking to colleagues like Roman Dial, Paddy Sullivan, who also had made some of these observations. We talked to a lot of people with ADF&G, Brendan Scanlon. Joe Spencer, Chelsea Clawson, who's been doing a lot of this work out at Red Dog Mine, where they've been observing this for a long time. And all of a sudden we had this compiled observations of more than 75 streams that range from, you know, Red Dog Mine all the way to the Eastern Brooks Range, you know, spanning over 1,000 kilometers. We also started to look at, you know, knowing that some of these things had been out there, but that there had really been this uptick in the number of them recently. And the way we did that was looking at remote sensing. So, we had some ground truth spots in Agashashok, Kugururok and Anaktok Creek, and Carson Baughman here with USGS, used a remote sensing and developed this redness index where he could go out and figure out when these streams became impaired. And you can see there's redness index when it gets above 1.5 every -- things become impaired. So, on the Agashashok that matches up right with our figure in 2019 those dots became, you know, it became impaired in 2019, same for the Kugururok, the salmon on the -- or the Anaktok Creek, in -- which is part of the Salmon River drainage, that one is kind of come on and off a couple times over the years that we've observed. So, we've been able to demonstrate that, you know, in a lot of -- we've got this big spatial extent and temporally, things have really started to become more and more impaired across the Brooks Range in the last decade or so.

And when we got on the ground and started looking at what was in there, we were comparing the unimpaired and impaired and then that seep, which is the red dot, you know, and that red dot here in the top left looking at pH, you can see it's down around 2.3. The impaired system is in orange, the pH is much lower range in most places compared to the unimpaired. The amount of sulfates in those systems, we see a really big difference between impaired and the seep, compared to the unimpaired. And sulfate, is gonna become a big part of this presentation here in a second. When we look at the metals, just in general, we see much higher metals in the impaired and at the seep, than we did in the unimpaired system. And a lot of those metals in there,

a high percentage of it is iron, which is why we've been calling this the rusting rivers, and you see it really orange in a lot of cases, but there's a lot of other metals in there aluminum, manganese, zinc, selenium, copper, nickel. And a lot of this is fairly toxic to -- some of these can be very toxic to fish, for example. So, here's all the metals on the -- across the bottom here, showing those differences between the impaired and unimpaired sites. And then a picture above just showing just, you know, how different those water sample collections can really be. And for me, you know, one of the things that's got me really motivated to you know, kinda do the best science we can here is that when we go back to that original study where we observed this difference in 2017 and 2018, we see big differences in the food web.

In 2017, there was a lot of dolly varden and slimy sculpin in this small little headwater, a lot of macroinvertebrates, a lot of periphyton biomass. But when we came back in 2018, there were no fish in the system. The macroinvertebrate density had been decimated, and we actually couldn't even really measure the periphyton biomass because of -- there is this orange precipitate on everything. So, it's very concerning as to what the consequences could be. So, we're moving forward on that. And what we think is happening overall, and this goes back to where I started thinking about permafrost is, if you think about water coming off the landscape, and this is in just sort of a unimpaired system, water coming through a shallow flow path. What we think is happening is that when it -- water gets deeper and we get a deeper flow path, and in some watersheds where it's running over pyrite and these exposed sulfide minerals, it's actually lowering the pH. And that lower pH is then allowing all of these metals, including iron, to be transported into these streams, creating these rusting rivers. So, it's a change in the depth of the permafrost and depth of the flow that is making these impaired systems. There's also another process that can happen in the lowlands, where you get deeper flow paths that create anoxic soils, and then there can be a microbial process that moves iron out. And it's the two of these processes that are kinda working in concert to create these rusting rivers.

And of course, what we're worried about overall is just the impact of the food web, whether that's the direct uptake by fish, bioaccumulation of some of these metals through the food web, or just the

loss of habitat like we saw in that small little tributary in the (In Native). And then what does that mean for, you know, drinking water? What is that gonna mean for subsistence fish?

So, all of these were observations and some of our ideas and conceptual model were put in this recent or I guess it's last spring now paper, kinda demonstrating all of this. And we continue to work on this and hopefully we'll be back out this summer to continue collecting data and trying to understand what is going on. And just to hit on a couple of these briefly, we're trying to understand why different watersheds have impaired water and others don't and trying to map the vulnerability of different areas to this event looking at the different geology underneath. One thing that I'm particularly interested in is trying to understand how these rusting rivers overlap with spawning habitat. And we're just doing sort of a desktop exercise right now to compare areas where we know fish spawn and where we're seeing rusting rivers.

And then we're working in a number of other spots just to look at the changes in the food webs to kind of expand beyond where we saw this in the (In Native). And one of those places is we're working with -- and collaborating with ADF&G and Lauren Yancy and Jeff Muehlbauer with USGS Co-op Unit in Fairbanks trying to harness a lot of the data that has been collected by ADF&G since the 90s in and around in the Wulik River drainage. We're hoping to compare and contrast the work that's happening there with some of the work that my group is doing, so that we can start understanding some of the consequences in all of these different environments. And I think there could be different effects of this because the rusting rivers has -- you know, some of them has happened recently, some of them have been happening for a while. And then there's just differences in terms of what -- the water is impaired. Some of it it's got a lot of iron in it, some of it's kind of more of a milky white blue, suggesting there's a lot of aluminum. So, there could be differences to the food web based on these different metal compositions that are coming in.

So, I will end there. Except I'd like to put up an acknowledgement slides of a lot of the funding, a lot of the people that've been helping in the field, and some of our other collaborators that hopefully I mentioned as I was going through there. I

will stop there except to thank everyone for their time. Apologize again, for my awkward start with the technology. And if there's time, I'd gladly take any questions. Thank you.

CHAIRPERSON BAKER: Thank you, Dr. Carey. Mike, you have a question?

MR. KRAMER: Yeah, this is Council member Kramer. I noticed, you know, from back in the day when I was a teenager, and we used to go down the coast. Cape Blossom was pretty large, the beach was pretty large. Now you get -- there's times where it's barely even passable. Same down by Coffee Point, there's starting to be a lot more exposed mud. So, you're not able to go down the Arctic Circle. You know, Kotzebue is getting closer and closer to being on an island, along with Sisualik. In the past years, I've noticed in some places on the Noatak that had very good plush and lush willows on these little bluffs and stuff, and I've noticed they've all collapsed.

One other thing I've noticed out on the tundra, you know, when you go back behind Cape Blossom, when it's impassable along the beaches, they're starting to be more and more of those under the Tundra ponds. I know quite a few years ago, a guy was driving his four-wheeler in the dark, and he lost his four-wheeler. Went right into one of those cause it's like a waterbed, and his four-wheeler sunk. He went out there to go try to recover his four-wheeler, but you know, he brought 30 feet of rope, and it wasn't even deep enough to find his four-wheeler. Eventually he ended up going out there with about 80 feet of rope and was able to finally snag on to his four-wheeler and pull it up and out of the water, but you know, that the water is so acidic it damaged his four-wheeler.

I've noticed over the years also, you know trapping with my brother back here in a lot of these ponds, and we put our beaver traps in some of these ponds, and, you know, some of them are, some of our 330 conibears are real rusty, boy after the first week in their set, and you get a beaver and all the rust is gone. The other big thing that we've been having here in Kotzebue is manganese levels in our drinking water and, you know, I know that the city has a new water plant. They're trying to figure out all the bugs. But, you know, there's just not enough -- there's not enough -- they're not providing enough filters for everybody.

And I think it would be wise, you know, I mean, cause we get our water from Vortac Lake and Devil Lake. Devil's Lake back behind Kotzebue. They even got it to where they don't allow snowmachines to drive across Devil's Lake anymore due to the fact that there's some particles from the exhaust of snowmachines passing over the ice and depositing them on the top of the ice, and then it goes into the water source.

I think that, you know, on a yearly basis that either your organization or some other organization, you go out and do random tap water tests from all the communities in northwest Alaska, either on a monthly basis to try and study the consumable water. I know that there was times here in Kotzebue -- I mean, man, it looked like you were taking a bath in a red mud puddle, you know. And this is supposed to be drinkable water. You know, my concern was that we had elders and youth, very young kids that had no idea this water was that color, and they just started drinking it. It's gonna start being very critical as time goes on and global warming. The thawing of permafrost, you know, it's beginning to get pretty critical. And now that you're saying that it's, you know, possibly damaging fishing streams for trout and salmon and other species. I think it be good to continue to fund your program, your studies. And I know that there's a lot of youth programs out there that, you know, you guys could involve youth into your guys' studies or even into collecting water, you know, water samples from different loops here in Kotzebue from kids, you know, go around and just get some samples right out of the tap, random places. But that's my concern is that, you know, it's beginning to -- global warming is very -- beginning to -- very impact [sic] a lot of our ecosystems and our rivers and lakes. Thank you.

MR. CAREY: Id like, if this okay for me to respond to that, Chair?

CHAIRPERSON BAKER: Yes, please.

MR. CAREY: I just want to thank you for all those observations on the changes. I think you're pointing a lot of -- out -- pointed out a lot of differences that are occurring. In terms of the tap water, I think that's, you know, kind of in somebody else's purview. But we're certainly interested in that data and what is, you know, going on and what the implications are for people in the communities. Your

idea on involving kids, I just wanted to point out that next week, I was actually hoping to be in Kotzebue, but I'm not able to travel for this. But myself, and Josh Koch, who's a hydrologist here at USGS, will be talking -- speaking with the Acceleration Academy at Kotzebue High School. I believe Jazmine Camp is the organizer of that. I hope I got her name right. But we're trying to do exactly that, is just start talking to some of the kids in the community about the changes that we're observing, and I hadn't really thought about having them collect any samples and kind of won't be able to do it on this trip, but that'd be something we're certainly interested in going forward. So, thank you for all those comments.

CHAIRPERSON BAKER: Elmer, did you have a comment?

MR. ARMSTRONG: Yes. You know, the last couple of years we've been getting remnants of typhoons coming up Northwest Alaska and dropping a lot of water in our area. So, with your study, you've been collecting data on metal releases in the water?

MR. CAREY: Yes, we've been collecting a lot of water samples on primarily park lands looking at just the different constituents in the water and also you know, just looking at the amount of flow, where they're coming from, temperature, trying to monitor all of the different water quality parameters.

MR. ARMSTRONG: And also, another question, through the Chair. Do we have to make a proposal for him to continue looking for funding, to continue this project for multiple years?

CHAIRPERSON BAKER: I believe this would be write a letter of support like we did earlier, which if someone would like to make that motion, we could probably do. We would just need to do the justification discussion again and explain why we wanna support that.

MR. ARMSTRONG: Thank you, Mr. Chair. Elmer Armstrong, Noorvik. I make a motion or proposal to write a letter in support for this research on the water.

CHAIRPERSON BAKER: Clyde.

MR. RAMOTH: I'll second that motion with a comment for further studies on water temperatures and everything involved with any kind of studies that could back it up. Thank you.

CHAIRPERSON BAKER: Elmer.

MR. ARMSTRONG: Okay, just for justification, to collect data that -- for our fish, our water quality, and I don't know, I could probably think of more stuff.

CHAIRPERSON BAKER: So, motion made by Elmer and seconded by Clyde to draft a letter supporting future studies on aquatic ecosystems, these releases causing rusting rivers, fish studies relating to that. Any further discussion? Does OSM staff with the gray beard wanna come back to the table, in case we need to have a further discussion to make sure we have the body of intent of the -- a letter?

MS. HUTCHINSON: Yeah, it would be like just a general letter to give to him for support for various projects he applies for. Is that what you would like?

CHAIRPERSON BAKER: Pertaining to this.....

MS. HUTCHINSON: Pertaining to this study, okay.

CHAIRPERSON BAKER: .....study. So, Mike and then Tristen.

MR. KRAMER: Yeah, the concerns that I see is pretty much drinking water, you know, Kotzebue we get ours from a couple of ponds back here. Noorvik, gets theirs from the river; Kiana, Selawik, they get theirs from the river. You know, there's a lot of concerns of contaminants to human health you know, and what these levels are. I mean, if you were to look up the most contaminated city in the United States, Kotzebue is number one.

UNIDENTIFIED: (Indiscernible) number two.

MR. KRAMER: And you know, it -- in that article, it states that if we're downstream from Red Dog

and that's the contamination, it's all wrong. Somebody needs to go to that website or whoever provided that information on that one is making Kotzebue look bad. It says that we were most contaminated city in the United States. Along with another city somewhere down south. But you know, the continuation of permafrost deterioration, the increasing metals and other -- how would you say it? Other contaminants into the water system is beginning to affect a lot of the fish. I think it would be great if you guys could do a continual study where, you know, there's a possibility you guys can use, you know, satellite information as to where rivers are changing, where bluffs are eroding more. You know, cause Kotzebue is gonna become a island within the next, you know, 10 to 20 years. But those kinda monitoring need to be continued, especially when it comes down to water sources, fishery water sources, spawning areas, you know, it's all gonna -- the contamination is gonna all flow down to us, you know, as consumers of water and fish and wildlife. So, I think the continuation of your study is very, very important. Thank you.

CHAIRPERSON BAKER: Thank you, Mike. Tristen, did you have something?

MR. PATTEE: I guess, just to -- Tristen Pattee here. Just, I guess, just to respond to Mike's comment. You know, the thing is called the toxic release inventory, and it's just the way it's structured in the wording. There's real -- there's no toxic release or anything that's being flown down here from Red Dog or anything. I can give you some literature and all that, but that's it.

CHAIRPERSON BAKER: Thank you for that comment on the air and on the record. Any further discussion for this motion to draft a letter of support? To clarify, it would be going to Dr. Michael Carey at USGS. And so, I would ask Dr. Carey, is there anyone else that it would help to send this letter to, of just general support for further study?

MR. RAMOTH: Just a comment.

MR. CAREY: Oh, yes, go ahead.

CHAIRPERSON BAKER: Dr. Carey, go ahead.

MR. CAREY: Oh, thank you. I think Chris Zimmerman, who's the Alaska Science Center director, the

USGS Alaska Science Center director having that letter go to him, I think would be appropriate. I can provide his contact information in addition to mine, if that would be helpful.

CHAIRPERSON BAKER: If you could put that into the Teams chat so that OSM staff can get it recorded. Clyde.

MR. RAMOTH: Just a general comment with the Selawik River mudslide that we have upriver and a current one near the village that's about 3 to 5 miles away from the village. I know climate change, global warming is always a issue with the -- there's more studies that could be included with the warmer temperatures in the water and the solar, hotter sunshine, does make a effect with our fish and stuff. Thank you.

CHAIRPERSON BAKER: Thank you, Clyde. Any further discussion? Mike.

MR. KRAMER: Yeah, the reason I worry about that contamination of, you know, Kotzebue and they say Red Dog. But, you know, I think that whole article needs to be removed. You know, it's making Kotzebue and Red Dog look bad, as being the most contaminated city in the United States, and I don't think that's right, you know. That's my concern and I think they need to remove that article from that website or whatever it may be, where it's at, cause it's all wrong. Thank you.

CHAIRPERSON BAKER: Thank you for that, Mike. Any further discussion?

MR. RAMOTH: (Indiscernible) Call for question.

CHAIRPERSON BAKER: To be clear staff, do we have adequate discussion, justification and who the letter will be going to? I'm seeing heads nodding, thumbs are up. So, with that, all those in favor, please signify by saying aye.

IN UNISON: Aye.

CHAIRPERSON BAKER: And those opposed, same sign.

(No response)

Hearing no opposition, the motion passes to draft the letter to support the effects on aquatic ecosystems et. all. Tristen, do you have something?

(No response)

Dr. Carey, was there any final comments you were liking to make?

MR. CAREY: No, I just wanted to thank everybody for their time. And I really appreciate the support and appreciate taking the time to talk about the letter, that was unexpected and greatly appreciated. Thank you.

CHAIRPERSON BAKER: All right, thank you. Tristen.

MR. PATTEE: Through the Chair, Tristen Pattee. I just wanted to acknowledge Lauren Yancy and Chelsea Clawson that help with this entire study. We work very closely with the -- they work very closely with my team at Red Dog, with the environmental department. You know, they've -- went through some pretty harsh condition and no matter what they seem to always get their work done, and I've been very, very impressed with their work. And please pass that along to them. Thank you.

CHAIRPERSON BAKER: Thank you for that. It is now 11:40 a.m. The next item on the agenda is Bureau of Land Management. I don't know if we have anyone on the call that had a report for BLM. If not, we will move right into the U.S. Fish and Wildlife Selawik National Wildlife Refuge report. And once that report and questions, comments are finished, we'll go into lunch.

(No comments)

So, hearing no one from BLM at this time, the U.S. Fish and Wildlife Service has the floor.

MR. WIESE: Thank you, Mr. Chair. Wil Wiese, refuge manager for Selawik Refuge, and I'm joined here by Brittany. Brittany, do you wanna introduce yourself?

MS. SWEENEY: Hello, I'm Brittany (In Native) I'm the assistant refuge manager at Selawik Refuge and I've been working here since 2010. Thank you.

MR. WIESE: Yeah, thanks for the time this morning. It's good to be back up here talking to the RAC, a couple of good days of meeting so far. I printed out an update from Selawik Refuge, I gave to each of you yesterday, it looks like this. It's also online. I won't go through every word in here, I'll go through it pretty quick, and then at the end, if there's questions or anytime, interrupt me. First of all, reminder, Selawik Refuge, that's who I work for. Selawik River area, Kobuk Delta, Tag River, Kougarok River. And we're a wildlife refuge, and we have very clear and distinct purposes. That's conservation of fish and wildlife, ensuring there's clean water and enough water, making sure there's adequate subsistence opportunities, upholding treaty rights, and making sure that our wilderness and wild and scenic river are taken care of. And I bring that up right off the bat, because there's a lot we do and I'm the one responsible for ensuring that we meet those purposes and making the decisions about where we spend our money and our time to try and meet those purposes. And so, it means there's a lot that we can't do, too. And I appreciate being here and being part of this, cause subsistence is a big part of the reason we're here. And I want you all to hold me accountable and us accountable to make sure that we're doing a good job of providing subsistence opportunity. I also want to help you all out, one of the ways that I can help provide subsistence opportunities is to be here as a resource. So, at any time during any of these meetings, you're welcome to call on me and ask questions and I'm happy to try and help with proposals or any anything we can because it is part of my job.

So, I'll start with sort of some management and permitting updates. First one, OTZ Telecommunications Broadband Internet Project. This project has been in the works for years to put towers out on the landscape that would bring internet to communities. They'd be just bringing internet to communities; two towers would go on Selawik Refuge. I expect that we'll have a decision record out on this project. So, a decision on whether or not to permit it in the next couple of weeks. There's a -- been a full environmental review done, and you can go online and find that environmental review and those documents. The next sort of big permitting development project is the

NANA Digital Broadband Network Project. This one is relatively new. It'd be a fiber optic cable network connecting Kotzebue to other communities. Fiber optic cables will be laid both over the surface of the Tundra aerially, so poles to cross rivers. Also, on the floor of the water beds in places. I don't have a lot of details on exactly what this project will look like, because I have not received an official application yet. I expect that there might be one in my email box right now. Expect any day to get an official application to have more information. But this is kind of a big project, 700 and some miles of cable in the region, a lot of it on Selawik Refuge. And I'll be spending a lot of time, I'm sure, in the coming year really evaluating this proposal and making decisions about how it affects our purposes.

Talked a little about guided hunting and air transfers yesterday, so I'm gonna skip over that, and go to competitive races. So, any sort of competitive races or things that make money on the Refuge, I'm required by law to issue a permit for so, the Kobuk 440 is coming up, Archie Ferguson/Willie Goodwin, snowmachine race coming up. I issue permits for those races to go across Refuge lands. This year a change was the Iron Dog came to us to see about changing the race route for 2026. So, right now, the race route goes through the borders of Selawik Wildlife Refuge, but we worked with the race organizers so that that route is only on NANA lands, private lands, State waterways. So, it's not on Refuge lands. And we worked with them because they came to us wanting to do a route, and we looked at it and we said, you know, we would have to issue a permit if it's on Refuge lands and we're not sure that we can do that, at least at the time. Now they want to formally look at a new route, which would come up from Huslia, up to Shungnak and in the upper Kobuk that way, crossing Refuge lands. We're at the very beginning stages of evaluating that, and I'll be looking again at how that affects all of our purposes.

Next, on the sort of permitting and management list is the duplex at Selawik Hot Springs, which I'm kinda kidding. There's no plans for a duplex at Selawik Hot Springs, but there are two.....

MS. SWEENEY: Yeah.

MR. WIESE: .....two cabins there.....

MS. SWEENEY: Yeah, I just wanted to add on for anybody who's listening on the radio, they can't see the smile on Wil's face as he's saying duplex. So, we're using that term jokingly.

MR. WIESE: So, there's currently two cabins at Selawik Hot Springs and a bathhouse, and both Huslia and residents in the upper Kobuk have expressed a desire to figure out a long-term solution for that site, and how to make those cabins workable. There's been floodings in past years due to the beaver dams that are on the site. The cabins need repairs, and we're in the beginning stages of figuring out what to do there. And I'm really interested in helping with this, I'm really interested it being a long-term solution and not a patch job kinda thing, where we continuously have to look for new ways to do things. I anticipate heading to the Hot Springs next weekend with some folks from upriver to take a look at things, to kind of assess what kinda long-term ideas might be there, but we're just in the initial stages of thinking about that.

All right, I'm gonna shift to our biological program a little bit. So, our biological program -- we have a biological program to kinda collect information so that we can make good, sound decisions on management. And our biological staff is Bill Carter, that's it, in Kotzebue. And Bill is a fish biologist. So, we focus a lot on fish as far as the projects we lead in the region. And then we try and support a lot of projects by other researchers from outside on other things. For example, ADF&G does a great job on caribou and moose research, so we provide support to them to do that, we don't do our own like, caribou or moose surveys. First biological project I'll touch on, sheefish. So, we heard from member Ramoth about the thaw slump upriver on Selawik. Data collection occurred last year on sheefish to assess how that thaw slump has affected the sheefish population, and member Kramer spoke to this too. Bill has been working on cutting otoliths, figuring out the ages of fish, doing the data analysis. I'm hopeful that a report on the effects of that thaw slump on sheefish will be out by your next meeting, and we'll be certain to do a presentation when we have it on exactly what we found from all the years of data collection up there. And that's actually led not by us at the Refuge, but by Fish and Wildlife folks out of Fairbanks, Ray Hander, and it's funded through the FRMP process. So, you all can take some of the credit for making sure that we have that information.

MS. SWEENEY: And this is Brittany. I wanted to say that for all the people who wonder what fish biologists do in the winter, we have a room in the back part of our office where Bill has a grinding machine and a microscope, and he's been back there diligently slicing each one of these fish ear bones and grinding it and putting on a microscope slide. And so, there's a whole process, not the fun part of catching the fish, but then the important part of getting all the information. So, I just wanted to give props to Bill that he's been back there every day grinding away and getting this data. Thank you, Bill.

MR. WIESE: So, we don't have any big sheefish projects planned for this coming year. We're still kind of working out ways to really monitor sheefish population in the long term, I'd say one thing folks can do is if they notice changes in the sheefish population or distribution, let us know. It's really helpful for us to understand what the people are seeing out there. Next year or this year, we'll really be focusing a lot on other whitefish species. We have sort of three separate studies being planned to look at other whitefish. The first one is just getting some baseline information on spawning areas in Selawik Refuge because we don't have a really comprehensive understanding of where fish are spawning. And Bill will be leading that up and going to some rivers and doing some net surveys to see what's out there. Another -- a second project is kind of part of that -- is -- but really diving deeper into the population structure of (In Native) and (In Native), humpback and broad whitefish out there by starting to collect those ear bones, understanding the age of fish and getting better population model for those fish. And finally, I think one of the ones that we're really excited about is doing what we're calling sort of a whitefish satisfaction survey or something similar in the communities. And we see this as a way that we can get an index of the population health of whitefish and, and Brittany will be involved in this one. But it kind of formalizing a network so that we can have people on the ground monitoring whitefish and letting us know if they start seeing any problem with the population.

MS. SWEENEY: So, this is Brittany, just to add on, we will be designing that or sort of figuring it out, working with tribes. So, we've spoken to Selawik Tribal Council about this and gotten approval. I'll be speaking with Noorvik at their upcoming meeting next

week. And so, we wanna figure it out together with the tribes and the local knowledge holders of what this would look like. Because we know that local people that depend on these fish the most are probably gonna be the first ones to see changes or concerning things and so, if we can work with them as the eyes and ears, it will help the Refuge monitor these fish that we know are really important for food. Thank you.

MR. WIESE: The last biological project I'll highlight is just our water temperature and discharge monitoring, discharge being how much water is coming down the river. In your packet, there's some links to where you can find water temperature data that we collect. We did work with Noorvik Native Community to put out a water temperature monitor just upstream of Noorvik. So, there's data on water temperature there. These data loggers are small, we go out and pick them up each summer and then upload the data from the last year. So, you can't go in and see day to day what the temperature is, but you can see last year's data. But we are trying to build long-term understanding of what the water temperature is in the rivers.

MS. SWEENEY: Yes, so member Ramoth. Clyde, you mentioned this to Mr. Carey, you know, during his presentation. But I did wanna point out that at least for the waterways within Selawik Refuge, that the Refuge is collecting this temperature data, and that's ongoing. Thank you.

MR. WIESE: Finally, a few updates on our outreach program, I'll highlight -- first one I'm gonna highlight is very visible in front of our office down the street. It's our new Refuge sign, and we're really proud of it. It came together as a collaborative design with Norma Ballot and Christina Nelson, who now works here at the Park Service and really drew on elements from the Community of Selawik and from this region, and subsistence elements and colors of the berries that are picked. And we're really proud of it and how that came together, it's just a really good collaboration and kinda tied together a lot of what we do as a Refuge. So, check it out down the street.

Next outreach priority I'll highlight is our Selawik Science and Culture camp. Member Ramoth mentioned this a couple of times, that's a high priority of ours, and we look forward to doing it with -- in partnership with the tribe in Selawik again this year.

And the third one I'll touch on is a booklet that's being developed on muskrats and muskrat trapping in the Selawik area and this is work that Susan Georgette worked on and did lots of interviews with elders to understand the history of muskrats on the Refuge. And it's really interesting work, and it's a lot of work to get that all together into like a real printed book format, and really grateful to Susan for being willing to volunteer her time now that she's retired to work on that and help get it finished. And so, hopefully we'll have a published thing that we can bring back to the community and really show off that work to the community and bring it back to them.

So, kind of the final thing I'll just talk to you is something Siikauraq talked to you yesterday and that is capacity and sort of all the uncertainty in the federal government right now. Our staff right now is myself, Brittany beside me, Bill Carter, our maintenance professional here in town, Sean Nelson, and Frank Berry, Jr. in Selawik, who does maintenance and is kind of our guide. That's the smallest staff as we've had in a very long time, and we can all see in the news what's going on with the federal government, agencies are being downsized, Fish and Wildlife Service is part of that. So, we don't know exactly what our capacity will be tomorrow, or next month or a year from now. We don't know that, that's an uncertainty of ours. We're committed to continuing to try as hard as we can to fulfill our purposes, and subsistence is one of those purposes. But understand, there are likely things that we're not going to do as much of in this coming year as we have in the past. And again, I'm the one responsible for making those decisions. So, I welcome input on what folks feel like is important and what we really should be working on because we'll do our best. But I do want to acknowledge the reality that it's not going to be everything. So, with that, thank you again, and there's any questions for me, Brittany, Bill, please let us know.

CHAIRPERSON BAKER: Thank you, Wil and Brittany. First Elmer, then Clyde.

MR. ARMSTRONG: So, I see that you're collecting data on temperature, contaminants in fish, is water data collection part of this, or can we add that to see if there's -- because we're starting to see -- get more rain, so there's a lot of -- or drainage from high water releasing natural contaminants. Is that

part of the data you collect, or do I need to add it in a proposal with all the other surveys you do?

MR. WIESE: Yeah, thank you for the question, member Armstrong. Currently, we don't, as a Refuge have any plans for a study collecting water samples to look at contaminants in water on the Refuge. There have been some studies like that in the past, and I can provide some of that information. We're also collaborating with researchers who are looking at contaminants in fish, and we're helping collect some fish in Selawik to look at like metal contaminants and that kinda contaminants. They're also collecting fish up in the Kivalina area and are looking at it as good way to kinda compare fish from different areas. But currently nothing specific to water contaminants. I'll say there's also other studies that we've permitted -- well, yeah, past studies there have been.

CHAIRPERSON BAKER: Clyde.

MR. RAMOTH: Yeah, Clyde Ramoth, Selawik. Thank you, Wil and Brittany. I know as a past employee and part of the answer for member Armstrong from Noorvik question about the water quality, water temperatures. I know -- I remember boating with Randy Brown, the fishery biologist, and we did some water samples and stuff about the algae in the warmer temps with the global warming, now climate change. So, that's how it's in the background, the (In Native) and (In Native). I'm glad to hear there’s gonna be more studies on those. The radiation, the warmer temps. I was speaking about the Hot Springs, I remember helping building the most expensive outhouse in Alaska there back in the day. It's good to read -- when I read about Bill Carter (indiscernible) and Ray Hander studies about the otolith, fish, the sheefish, cause we're all affected by that. And to see those studies being shared and always consulting with our tribe is always important, so I just wanted to comment there. Thank you.

CHAIRPERSON BAKER: Verne.

MR. CLEVELAND: I helped build those buildings in Hot Springs back when they started building them. But you brought up Iron Dog and going through the park. Can we -- can you put in some permanent stake, not pole, not metal, maybe some permanent stakes going through from Huslia to Hot Springs to Shungnak, Shungnak to the Ambler to Selawik put some permanent stakes in

so we won't have to every year put -- take some. If you guys would put permanent stakes to the National Park that would really help out our search and rescue in our area. And bringing up that Iron Dog, I think -- I did hear Iditarod coming through next. Did they hear that right or was that just -- I mean, I heard stories about Iditarod going through the same area, from Huslia and go upriver, then back down. I mean, that would just be hear say. Now that you brought Iron Dog, I think it's gonna happen. Thank you.

MR. WIESE: Yeah, thank you, member Cleveland. Your question about stakes on the trail, what I'm -- what I can commit to do is working closely with the Borough on figuring out a solution to trail staking within Refuge. Currently, you know, the Borough takes the lead on that. We as Refuge, actually are committed to supporting that and we do that through the work of our employee, Frank Berry, Jr. in Selawik who does a lot of that trail staking out of there. I don't know that I can commit to saying we're gonna put permanent stakes up on the Shungnak, Huslia to set a trail, but I can work with the Borough and work with the local communities and on better solutions.

CHAIRPERSON BAKER: Clyde.

MR. RAMOTH: I recall -- member Cleveland and probably Brittany was gonna echo that, but I recall back in the day, Susan Georgette probably had that with the GPS mapping, like with my help, from my dad, my -- and others that they put GS mapping that goes all the way to the Hot Springs. That's one avenue they did I know for sure.

MS. SWEENEY: Yes, thank you. This is Brittany. I just wanted to say Susan did take GPS coordinates throughout the winter trails and the cabins and shared that with the Borough. I wanted to mention, regarding the Hot Springs, and, you know, whatever permits we issue for cabins or structures or however we work with communities there. It was impressed upon me when I started working here that that's an important site for the communities and has been since before it was a Refuge and so, that it’s important to maintain that local stewardship, local ownership, and work closely with partners. We don't wanna take it over and have it be like a Refuge facility. We really wanna work with partners so that local communities continue to have those connections. Just like we said that part of our

mission is continuing the subsistence use and the relationship with the land. So, I just wanna share that you were involved in building it, and we want people to continue to be involved with it. Thank you.

CHAIRPERSON BAKER: Elmer, then Vern.

MR. AMRSTRONG: Thank you. I'd like to make a motion for a proposal to write a letter in support of all the projects they have. Also, to include collecting water data to map out any changes that are happening since we're starting to see more rainfall during summer seasons. Thank you.

CHAIRPERSON BAKER: So, motion made by Elmer to support studies, it's all on the record. Is there a second?

MR. RAMOTH: Second.

CHAIRPERSON BAKER: Seconded by Clyde. Any discussion for justification? Elmer.

MR. ARMSTRONG: Yes, thank you. For justification, I know it's always good to see the data that they provide and acknowledge the changes that they might see through the data that they collect as we are seeing changes in the climate and that affects the fish, the water quality. Thank you.

CHAIRPERSON BAKER: Clyde.

MR. RAMOTH: Yeah, part of that -- Clyde Ramoth, Selawik -- is (In Native). Of course, member Armstrong and Cleveland from Noorvik were all affected by these fish. And doing those studies, I think will really back up like the algae, the warmer temperatures, the -- whatever that might affect with the environment, could definitely go a long way. Thank you.

CHAIRPERSON BAKER: Any other discussion? Verne.

MR. CLEVELAND: I'm old school, we put that GPS and sometimes they don't work. You guys see on the Iron Dog that some guys go wrong way, if you have a trail marker, it'd be a lot better than trying to follow GPS. And if it's stormy and they don't work, then you go depend on the trail marker. Cause I know I've been out there, and I’ve been lost and the only way I got

back was found a trail marker and follow it back. But other than that, some of you guys weren't even born when I was building the buildings and Hot Springs so, it's been a long time ago, we need something new out there for them folks. And thank you guys for always helping us out. Thank you.

CHAIRPERSON BAKER: Discussion for the letter of support.

MR. CLEVELAND: Question.

CHAIRPERSON BAKER: The staff have what they need? Thumbs up. Who would we like to send this letter to? Maybe Wil, would you have a recommendation for who would be best to send a copy of this too?

MR. WIESE: I think you'd send it to the U.S. Fish and Wildlife Service Regional director of Alaska. And yeah, I think that would be fine, I can provide contact information offline.

CHAIRPERSON BAKER: All right, if Wil could provide that to staff, we will go with that. Seeing no further discussion, all those in favor of drafting this letter, please signify by saying aye.

IN UNISON: Aye.

CHAIRPERSON BAKER: Those opposed, same sign.

(No response)

CHAIRPERSON BAKER: Seeing no opposition, the motion passes. With that, is there anything else that you or Brittany were hoping to cover, Wil?

MR. WIESE: Yes, Mr. Chair, there is one thing that I missed, and that is I got caught up in the negative about, you know, the current staffing place we're at. But we are -- we do have approval to hire a couple of interns right now to help with our maintenance division, also to help in our office, and we're targeting young people, ideally somebody from this region. There's information in these packets about how to apply, but people 18 to 30 can apply, and it's a pretty good deal. So, I encourage folks to pass on that information and/or get in contact with us, and we could help you through

it. Yes, they are paid, and they do actually provide a housing stipend as well. They're not work-for-free opportunities.

CHAIRPERSON BAKER: Thank you for that. Tristen, did you have...?

MR. PATTEE: Yeah, through the Chair, Tristen Pattee. First, I just want to acknowledge to you guys, you know, the -- with such short staff and with all these projects, you know, I commend you, that's -- it's -- that's amazing work that you guys do over there. Another thing is you know, I see these -- obviously, we talked about the Selawik, I mean, the Hot Springs place, and that's a very important place to a lot of people in -- not -- in a lot of the communities throughout the region, you know, I just -- I know people from Ambler that just went there yesterday. And so, it's a very important place and it's, you know, issuing these permits, and for the Iron Dog, and Selawik Hot Springs and you know, whatever permits that are needed. Is there some type of support that you can get from the community for you to make those type of decisions in issuing those permits?

MR. WIESE: Through the Chair. Thank you for the question. It depends on which permits, currently the Iron Dog one we're in the very early stages with that, and I've sent out communications to tribes in the region that are affected for their input and Native Corporations, KIC here in Kotzebue and NANA to provide that kinda consultation information that I need to help make the first round of decisions on that. I'll say that our permitting processes are different depending on the type of activity, and so what I have to look at in order to make a decision is different. That Iron Dog one is a difficult one because it is a new use of Refuge lands, something that we are evaluating for being appropriate and compatible with our purposes. As opposed to something like these development projects, totally different process. As being a right of way for a utility corridor, essentially. Short answer is -- but the specifics of how that goes are varied.

MR. PATTEE: Through the Chair, Tristen Pattee. So, the NANA broadband and the OTZ project are those new uses, and well if they are, what is their process so that we can know what needs to be done for something like this to happen?

MR. WIESE: Yes, absolutely. So, those would be considered right of ways for a utility system crossing the Refuge. So, the OTZ broadband project, the two towers project, that one, we're kind of beyond any need for input. We're at the final stages, the -- where decision is going to be issued. That said tribes have a government-to-government relationship with the United States government and can at any time weigh in on these things. But we're kinda past the formal public comment and that kinda thing. The NANA digital project, again, I don't formally have an application that I know of. I do expect today I will actually get it, and that'll kick off sort of the formal process for me to start. And in conversations with the Bureau of Land Management, the National Transportation and other agencies, I'll just say, to start reaching out to tribes, communities and other bodies who are interested in that and interested in providing input. I'd imagine we'll be talking about this again at the RAC meeting in the fall, as well.

CHAIRPERSON BAKER: Clyde.

MR. RAMOTH: Yeah, just for the record, Clyde Ramoth, Selawik. Member Pattee for Ambler. The Fish and Wildlife Service did a great job because I served on the Tribal Council for Selawik. They did a good job about consulting with us, about the OTZ towers, the possible effects about radiation, and what else, Wil? I know Brittany, but they're pretty good about consulting with us first prior to even OTZ approaching us. So, we've been -- I wanna say, properly consulted with any kind of environmental impacts that could hurt our birds or human, for the radiation for the towers is one thing. But all those kind of stuff, even just the possible environmental issues that arise, I don’t know about Artic but I know Selawik they've been pretty about -- pretty good about checking with us first, consulting.

CHAIRPERSON BAKER: Thank you, Clyde. Anything else, Wil or Brittany? Brittany.

MS. SWEENEY: Thank you, Mr. Chair. So, member Pattee, just to give you a little more information on the communication methods that we use. When we have government to government consultation opportunities, we communicate directly to the tribes through letters, emails or calls. But in addition, for many of these, when there's a public comment period, as there was previously for the OTZ towers project, we try to put that out through all of our communication methods,

including our Facebook page being one of them, and also, we posted flyers in many places. So, if you are interested in getting updates from us or you have any suggestions about communication methods to ensure people hear about these things when the comments periods happen, I would love to hear any feedback from you. And my email is on this report because that's part of my job is helping to communicate and get the word out. And so, people are aware of things that come around. Thank you.

CHAIRPERSON BAKER: Verne.

MR. CLEVELAND: Verne Cleveland. Was there one for the fiber layout throughout our region with NANA? That came out couple month ago, and they're planning to lay out that fiber from here to all the way upriver and go through National Park, did anyone hear about that?

MR. WIESE: Yes, member Cleveland. I think that is the one we're talking about, the NANA Digital Broadband Project. Yep.

CHAIRPERSON BAKER: To clarify, you haven't received a permit yet, but you're probably getting one this afternoon.

MR. WIESE: That's what I've been told is that I should expect a formal application to do that project this afternoon. And that's why I don't have a lot of formal information for the Council on that project, because I need to see the.....

(Simultaneous speech)

CHAIRPERSON BAKER: So, we can probably expect to hear about this at the fall RAC meeting.

MR. WIESE: Yes.

CHAIRPERSON BAKER: Final questions, comments for Selawik National Wildlife Refuge?

(No response)

Hearing none. Thank you for your report. It is now 12:17. We're gonna go ahead and take a lunch break and come back on the air at 1:30. 1:30.

(Off record)

(On record)

CHAIRPERSON BAKER: All right, everyone, is now 1:30. Member Verne Cleveland said he would be a few minutes late and to start without him. So, at this time, we'll move on to the National Park Service report. Annie Carlson, if you're ready, you have the floor.

MS. CARLSON: Good afternoon, this is Annie Carlson. I'm the Resources Program manager with the National Park Service. And with me -- I'll let her introduce herself.

MS. CREEK: Thank you, this is Emily Creek, also with the National Park Service. I am the cultural anthropologist and subsistence coordinator.

MS. CARLSON: So, you'll see on the agenda that for the Park update, our superintendent, Siikauraq Whiting, was scheduled, but she's not available today, so I'll be filling in with the Park agenda. Emily will give an SRC update. But really, for the park lands, our biggest update is that Siikauraq was reinstated as a superintendent this week, which is great news for us, and I'm really glad she was here yesterday and had the chance to kind of reintroduce herself to the Council and share some of her perspective. But a bit about the Western Arctic, we are three different National Park Service units, Kobuk Valley National Park, Noatak National Preserve and Cape Krusenstern National Monument, which is about 9 million acres of land, and our staff is about 20 people. And I'm gonna sort of borrow from my colleagues with Fish and Wildlife Service, I like that they start with their mission. Yes, sir?

MR. RAMOTH: (Indiscernible) Clyde Ramoth, Selawik. How many in law enforcement out of the 20?

MS. CARLSON: Great question. We currently have three employees in what we call RVP or Resource and Visitor Protection, our law enforcement division. The chief ranger, Scott Sample, lives in Fairbanks, but here in Kotzebue, we have a backcountry ranger, Jim Hans. And then we have a district ranger, Joe Dalle-Molle, but he's actually on a detail right now based out of Anchorage for Lake Clark.

So, what we do -- our mission for the National Park Service is to preserve and protect natural and cultural resources of the National Park System for the education, inspiration, and enjoyment of the public of this and future generations. And then Alaska, very specifically, since we are subsistence parks designated under ANILCA, we provide for subsistence uses. And really, we have some, like National Park visitors who come up here. But compared to places like the Grand Canyon, not so many of those types of visitors. Most of the people that use the park lands are local subsistence users. So, that's sort of our tie to the Council here.

But a bit about sort of what we have going on, as far as maintenance projects go, we did finish reciting this building, the Northwest Arctic Heritage Center last fall. So, you may have seen the contractors around town, that's completed. And we are planning a big housing project, a building project at our property, which is at the intersection of 5th and Mission Streets in Kotzebue, right across from Maniilaq. So, we have some Park Service housing there, we have a warehouse and an auto shop, and we are planning sort of going through the compliance process to build new housing that's replacing old housing that's no longer meeting our needs. So, you'll see we're going through tribal consultation with Native Village of Kotzebue, and working on that project this year to get ready for construction.

We want to give a thank you to several of our partners who have really helped us move some projects along this year including NANA, Maniilaq, Aqqaluk Trust, Native Village of Kotzebue, Native Village of Noatak, Native Village of Shungnak and Shungnak Search and Rescue. The partnerships have supported projects like place names work, museum collections, review and exhibit and also, to support the SRC. So, a lot of the work that we do is in partnership with our partners here in the region, and we can't do it without you. Do you wanna talk a little bit about Qatnut?

MS. CREEK: Sure. So, one of our big priorities for this summer is the Qatnut Trade Fair, Sisualik trades fair. So, for those who are not familiar this is a festival that is held here in Kotzebue, traditionally it was at Sisualik in Cape -- what is now Cape Krusenstern within the boundary. And dance groups from across the Arctic come to perform, and there's a

whole bunch of festivities and activities, and so that is one of our big things that we'll be focusing on, along with a bunch of partners in the region. We are going to have a table there and support some of the events, and we're very excited. This is going to be my first festival, and I've been looking forward to it ever since I came up here. So, we're really excited to support that and the community in that event.

MS. CARLSON: I wanna talk a bit about some of the field work and projects that we have coming up, similar to what Wil referred to, a lot of this is just sort of pending funding and the ability to travel and have our staff around. So, this is what we hope to do, and if there are changes, we can kinda let you know and keep you updated. But coming up pretty soon, starting next week, we'll have a few rangers that will snowmachine out into Kobuk Valley during the Kobuk 440, and they'll work at the shelter cabin in Kobuk Valley, keep that warm and greet the mushers as they come through, and hopefully also make it out to the Giddings Cabin and have a presence there as well. So, that's our first patrol coming up.

But then moving more into the summer field site, some of our bigger projects will include -- our archaeologist will be doing an archaeological site assessment in Cape Krusenstern, up and down the coast where there are hundreds of known archaeological sites. And this won't involve any new excavation or digging or collection of artifacts or anything like that, it's mostly to go back to sites and document in particular, following some of the big coastal storms that we've been having, the flooding from October, to see if coastal erosion is impacting any of these known archaeological sites. So, there'll be three big trips where he and our seasonal staff will spend probably about eight days at a time camping and moving up and along the coast for that. We're also hoping to do some restoration work of the Kelly River Ranger Station in Noatak Preserve. We may have to delay that. So, we might just be buying supplies this year and actually doing the fieldwork next year, so it remains to be seen. Our Interp and Ed program is going to host a youth program in Cape Krusenstern that they started last year and it was really successful, we called the Arctic Travelers. Well, they sort of base out of the Anigaaq Ranger Station area, and then we'll backpack or boat and camp out in the area. So, we have some flyers around in villages and are trying to recruit youth to participate in this program.

CHAIRPERSON BAKER: Yes, Clyde.

MR. RAMOTH: So, I'm listening and learning the same time. So, partnerships, so like with the Shungnak Search and Rescue and other organizations you guys are involved with, is that through like written MOAs or...?

MS. CREEK: Through the Chair. This is Emily Creek for the record. So, that particular partnership is through a general agreement between Gates of the Arctic, Western Arctic National Parklands and NANA. We're doing some place names work in the upper Kobuk, and we had a wonderful meeting with the Shungnak Search and Rescue, where we were able to learn how doing place names work can benefit their efficiency as a search and rescue team. So, that particular partnership is not like a formal agreement. It was -- it's kind of just a partnership that we're working through as we were visiting the community, and we learned a lot of really important good info and got some really great ideas from them.

CHAIRPERSON BAKER: Mike, did you have something?

MR. KRAMER: Yeah, I have land over there in Sisaulik, and one thing I've noticed is the beach over near my grandmother's and my allotment. The beach has gotten farther out, way out there, compared to what it used to be when I was a kid. And I think that Sisaulik is getting closer and closer to being an island, it has little narrows, somebody owns an allotment right there, and I'm like, man, it's washing away. There's a lot of cabins that are starting to get closer and closer to the edge that back in the day, that edge was way over by 50 feet out. And now, you know, some of these cabins are hanging over the edge. I've noticed a lot of the beach sand moving more towards (In Native) and Sisaulik over the years. I haven't been across since that storm, but I'd like to go over there this coming summer and take a look and see what kinda damage. I know a lot of people who have camps over in (In Native) from Noatak, you know, they went to go check on their cabins, like Robbie Kirk and, you know, a lot of the other guys and from Noatak that have cabins over there, summer camps. But I did notice, you know, a lot of erosion and eventually Sisaulik and Kotzebue is gonna become an island. You know, I've lived there all my life, and one thing I've

noticed is some areas compared to what it used to be, are so dry, you know, I don't know what that stems from, but I remember back then my grandma's cabin there was blackberries, like carpets. Now it's so dry there's like no moisture. I don't know if that's because of the muskox tromping or you know, it even hindered some of the blackberry picking, some of the cranberries. But I've noticed a big -- very big change in the environment over there the last 20 years.

MS. CREEK: I can speak briefly about a project that is -- some of the data is being analyzed now, but we've flown a mapping system that we call structure from motion that takes really high-definition images. And they flew this along the coast of both Bering Land Bridge and Cape Krusenstern several years ago, a sort of like baseline data where the coast was at, and then after Typhoon Merbok in 2022, there was a request to have it flown again to understand the coastal erosion that resulted from the typhoon. And they flew this last summer up and down Cape Krusenstern coast, again. And then we had this October flood, so the -- you know, we have some baseline data, but we can actually do some good comparison to see how the ground is shifting. So, this winter they're analyzing the data that they collected this summer, but that's maybe an idea for the fall RAC if you'd like to hear more about coastal erosion in that mapping project, to understand how Sisaulik and the -- you know, how some areas there's more deposition of sediment, in other areas it's washing away and eroding. So, that might be an interesting project to hear from if there's interest from the RAC.

CHAIRPERSON BAKER: I think any erosion projects in general would be something good to bring up this fall because it's affecting the entire region.

MS. CARLSON or CREEK: Yep.

CHAIRPERSON BAKER: So, if you could just make a note to include that in your next report, that'd be great.

MR. KRAMER: Another concern I see -- through the Chair -- was that, you know, I -- walking around looking for blackberries I come across this old grave and a human skull is visible. I was wondering if there's plans of maybe reburying them in the same spot. I don't know who they are, you know, a lot of our elders from Sisaulik are gone. And I've tried to find out, you

know, who that person was or whose family that belonged to, to see if maybe possibility [sic] we can rebury them cause they were there many, many years ago. You know, and I know there's other old gravesites within Sisaulik and Cape Krusenstern National Monument. I was just wondering if there's any possibilities of looking over the area for exposed grave sites such as that one.

MS. CARLSON: That's a really good question, and really closely related to some of this archaeological site condition work is that we do know sites are eroding are along rivers as well. So, the Park Service's role in something like that sort of depends on where this person is found, but we can help. And really what we would probably do is try to get more information about it and then engage in tribal consultation about what is wanted. So, depending -- and Emily, if you have a different answer. But I think that is sort of our first step is like, what does the tribe want or the landowner want, and how can we help that process?

MS. CREEK: Yeah, I can chime in too. This is Emily Creek for the record. If you see something like that, the best thing to do would be to contact anyone in our office. Whether you just call the front desk or specifically our archaeologist Brendan, and I can get you his contact. And then probably the Native Village of Kotzebue as well. But under ANILCA, we can assist in cultural resource issues, including human remains in NAGPRA even if it's not on park lands. So, definitely let us know, and let Native Village of Kotzebue know if it's, you know, in the Kotzebue area. Same with all of your communities if you're seeing this and we can work with communities and tribal governments on what is desired for those types of situations.

CHAIRPERSON BAKER: You can continue with your report.

MS. CARLSON: Thank you, Mr. Chair. Just a few other projects to briefly mention. The continued place names work in Kobuk Valley and Noatak. The soon to be published 400-page Kiana traditional use study, which has been in progress for several years, so Emily is working closely with those collaborators. But if that's of interest to anybody there will be both this quite large study, and then also sort of a more brief summary of major findings in information about the traditional connection of people from the Kiana region

to Kobuk Valley.

CHAIRPERSON BAKER: Yes, Clyde.

MR. RAMOTH: So, the Kiana study, is that part of something that Doug and Wanni Anderson did do for the (In Native) cause that's where my ancestors came from. Is that part of these studies?

MS. CREEK: Thank you, member Ramoth. Through the Chair, this is Emily Creek. That's a really good question. So, this project is a type of document that the Park Service does, which allows kind of -- it's a formal document that ties a specific group of people to the park land. And so, we utilized things from Doug and Wanni's research, so interviews, their published materials, as well as several other archival documents and interviews that have been conducted over many years. So, the researcher is from Portland State University. And then my predecessor and I've joined the project on the back end here as kind of an editor for the document. But they were able to compile a bunch of archival data from Doug and Wanni and from when the BIA was doing interviews back in the 70s, tons of archival records, they actually built an archive while doing this work to return that information to the community. So, that will be one of our follow-ups, is how communities may want access to this information, the raw interviews and stuff. So yes, it is tied to Doug and Wanni's work. And kind of outside of this project, I know that they are currently in the process of cataloging their entire collection as they plan to maybe retire. They never stop publishing and working, but I would expect that some of their work will be available for research requests and stuff.

CHAIRPERSON BAKER: Go ahead, Clyde.

MR. RAMOTH: For the record Clyde Ramoth, Selawik. They have a good record with Brown University in their studies. Thank you.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: Yeah, I -- in the past, I've guided for an individual up there in Trail Creek. And, you know, on some of my hikes out there with the hunters, I found a lot of areas where there was artifacts. I even recall one of my hunters picking up a arrowhead, and I said, put that back. I said, I catch you touching that

again, that's serious issue. But it's pretty amazing being up there in such high country and seeing, you know, I mean, I could recognize old campsites just by walking and looking. And I saw a lot of archaeological things like spearheads, arrowheads, you know, old bones. And they weren't human, but they were old caribou bones, piles of rocks. You know, and the thing that amazed me the most is some of them little, tiny valleys that go up there, and you got high side, there's these trails, it's like bigfoot walked up this ridge all the way up to the top, but those are bears that made those footsteps over the centuries. It's pretty amazing how you see those things, and you're like, man, did some kid make these or something. But, you know, and I found out that those were there cause bears for the last, how many centuries been walking in those same footsteps. You know, I've seen a lot of archaeological things up there, places where you could see where there was huts, maybe they waited for caribou. There's a lot of pretty interesting stuff farther up the Trail Creek that I seen, and that was pretty amazing. But when I was working there, I was real adamant to watching my hunters and make sure they didn't touch stuff. And if they did, I said, put it back.

MS. CARLSON: Thank you, member Kramer. We're really interested to know about those sites. If you happen to have photos or coordinates to just share with us, we -- our archaeologist Brendan is really interested in recording that it might be a known site, or it might not be known in our sort of official archaeological catalogue or database. So, that's just for the public that's listening, if you do find archaeological artefacts or sites in general, the Park Service, Brendan in particular is interested in getting photos, coordinates and then that message that you should leave artefacts there and not collect them because that's illegal, is all good for the record. Thank you, Mr. Kramer.

CHAIRPERSON BAKER: Yes, Mike.

MR. KRAMER: Yeah, I used to even hunt sheep up to Eli, and me and my brother took a hike, and we went up along this wall, the sheer wall, slate wall. And there's these egg-shaped things that was carved out in this wall. Come to find out, there's, like, 20 of them in there. That's where sheep lay down in those. And you could see where they're rubbing their horns, making them rounder, where they're, you know, protected from

the elements. And there's even a waterfall up there that was carved in the rocks. And there was like about a three-foot diameter hole in a pit. There was pretty amazing things, and we went -- hiked up towards Mount (In Native), and that's an amazing mountain, very amazing. I would like to spend time just wandering around and not having a specific campsite, just to go check out things like that. I've seen a lot of those same footprint things that I was talking about, even up there, up some of these ravines and valleys.

CHAIRPERSON BAKER: You can continue your report.

MS. CARLSON: Thank you. Final thing I'll mention for projects this summer. As Dr. Raime Fronstin was speaking about yesterday, our wildlife biologist, he's continuing wolf studies in Noatak Preserve and expanding with collaboration with Red Dog to hopefully also do some den survey mapping in Northern Krusenstern or more around the Wulik River and the Red Dog Road area, so continuing that kind of work as well. And two final things I'd like to address, one sort of exciting news, in line with what member Kramer has been speaking about is that most of the parklands, the 9 million acres that the Park Service manages, have not been formally surveyed for archaeological sites. So, we are continuing to try to do that work, and for the past several years, we've focused on the drainages in Northern Kobuk Valley National Park, so that sort of drained the Salmon River, the Tutuksuk, those rivers that drain to the south into the Kobuk River. And, this last summer we had a field crew of three people, including our archaeologist and two people from University of Alaska Museum of the North, who pack rafted along the Itkillik River looking for archaeological sites. And they did find a new site that was a series of small unikshuk the rock cairns that were in sort of in a linear east to west orientation that appeared to point towards Paatitaaq or Onion Portage. So, that -- we're -- there's still a lot of sites that are not formally documented. So, we appreciate your help if you want to engage with us in that process. That's really helpful for us as well. And this is just information for anyone who knew Lois Dalle-Molle who worked for the Park Service and lived here in Kotzebue for many years. She passed away this last winter, and so we wanted to just share, she had a big impact on Western Arctic National Parklands. Her son Joe Dalle-Molle is our current district ranger. And that family it has a lot of history living and working in Denali and

more recently in Fairbanks. So, just our thoughts are with their family and anyone who knew Lois, we're thinking of them. That's all I have for my formal report. If anyone has other questions or comments.

CHAIRPERSON BAKER: Questions, comments if there are -- Elmer.

MR. ARMSTRONG: Yes, thank you for your information. I'd like to make a motion to write a letter in support of their work on the Western Arctic National Parklands, the Arctic Travelers Kids program. Also, the restoration for ranger stations within the park, and also continued work with sites that haven't been discovered yet. Thank you.

CHAIRPERSON BAKER: Who would you like to send it to?

MR. ARMSTRONG: You have any recommendations where we should send this letter?

MR. CARLSON It would be great if you could send it to our regional director. Right now, the acting director's name is Dave Alberg, and I can provide information after this.

MR. ARMSTRONG: Thank you.

CHAIRPERSON BAKER: Motion made by Elmer. Is there a second?

MR. RAMOTH: I'll second. Clyde Ramoth.

CHAIRPERSON BAKER: Second by Clyde. Discussion for justification.

(Pause)

MR. PATTEE: Through the Chair, Tristen Pattee. I guess for justification, you know, it's -- you know, carrying on knowledge and certain traditions and potential findings that could be out there. I think it's very important that, you know, future generations can potentially hear about all these stories and also be involved with all the activities that are going on with everything that Elmer has mentioned and everything, you know, everything has to do with subsistence as well. And so, you know, it's -- I think it'd be a great thing for something to be supported.

CHAIRPERSON BAKER: Further discussion. I feel like we can use what has already been said in the transcripts as far as their undocumented sites, there's knowledge of them locally. I'm getting thumbs up from the back of the room. So, is there any other discussion we'd like on record?

(No response)

Seems this will be sufficient for justification. With that, all those in favor of this letter of support, please signify by saying aye.

IN UNISON: Aye.

CHAIRPERSON BAKER: And those opposed, same sign.

(No response)

Hearing no opposition. And we do have a quorum to conduct business and pass motions. So, with that, with no opposition, we'll go ahead and draft that letter. Any final questions or comments? If there are none, I would ask Emily to just continue riding to your SRC reports.

MS. CREEK: Thank you, Mr. Chair. Again, for the record, this is Emily Creek subsistence coordinator and cultural anthropologist for Western Arctic National Parklands. I provided an update from both the Cape Krusenstern Subsistence Resource Commission and the Kobuk Valley Subsistence Resource Commission, which are tab 7 and 8 in your materials. But I'll just kind of read this briefly, I don't have too much for you. So, we'll start with Cape Krusenstern. So, the Cape Krusenstern Subsistence Resource Commission met on February 24th, 2025. This Commission was established in accordance with the Alaska National Interest Lands Conservation Act Title VII, and is regulated by the Federal Advisory Committee Act, or FACA. And as mandated, the Commission will make recommendations to the Secretary of the Interior and Governor of Alaska on any changes in the subsistence hunting program or its implementation that the Commission deems necessary after consultation with the appropriate local committees and Regional Advisory Councils, and this is in vicinity of the Cape Krusenstern National Monument.

So, during their February meeting, we did not have a quorum. But there were four members present who decided to hold a work session. The members shared their observations from fall and winter in the Kotzebue, Noatak and Kivalina areas. Members discuss concerns about the October 2024 storm that we've been hearing about, and impacts on coastal erosion, burials and traditional sites. They also discussed the lack of beluga and salmon last year. And they shared concerns about heavy rain impacting the ability to dry their black meat and happiness about caribou being around their communities. And then specifically, our member from Kivalina emphasized that the community was putting a lot of effort into focusing the harvest on young bulls and trying to not harvest as many cows. And there are two current vacancies on this Commission, and I'm very excited to report that I've had three people express interest. I am always seeking people who are interested in applying and if anyone on the radio listening is interested in learning more, I'm still taking names before I send them forward. So, thank you to those who've expressed interest, and I really appreciate that.

Likewise, the Kobuk Valley Subsistence Resource Commission also met in February. They met on February 26th. And I'm not going to read the legalities, it is the same as the Cape Krusenstern. But there were five members present, and so there was quorum as we have seven seats out of nine filled. Members shared their observations from the communities of Noorvik, Kiana, Ambler, Shungnak, and Deering. Members discuss concerns about beavers and wolves, and shared that the caribou had arrived in many of the Kobuk River communities and were around Deering at that time. Members had concerns about balancing the community's needs for healthy food with conservation of the cows during the winter harvest, and members expressed concerns about the store prices in villages and empty shelves and some of their stores. And I added in this that the SRC had a proposal for the ptarmigan regulations, and you already addressed that yesterday, so we don't need to go into that one.

Similar, we have two current vacancies, and I am also happy that I had some folks interested in applying for this commission. Once again, I am still taking names for a couple more weeks before sending them forward. So, if anyone is interested in serving on the Kobuk Valley SRC you may call the Park Service office and get in touch with me. But I wanna thank everybody for their interest, and I want to thank both of the

Commissions for their really great work. And, you know, their role is really formalized in law, but also, we kind of used our SRCs as a sounding board for a lot of our projects and a really good example is Dr. Raime Fronstin's wolf project. After years of SRC concerns and RAC concerns, that's how that project got started, and so just to emphasize how important this body is and the Subsistence Resource Commissions. So, thanks to everyone who volunteers their time.

CHAIRPERSON BAKER: Any questions, comments? Clyde.

MR. RAMOTH: Yeah, Clyde Ramoth, Selawik. Just a question. So, the SRC, I heard Mr. Pattee talked about it the last couple of days, but I remember we had a Lower Kobuk Committee Council, whatever it was, because I switched from -- it was the Seward Peninsula where we just talked about seals and other stuff with Buckland and Deering, but I remember -- I had that argument. So, we end up with a Selawik, Noorvik, Kiana. Is that something similar to that?

MS. CREEK: Thank you, member Ramoth. Through the Chair. So, to make things nice and confusing this body serves you know, all of the federal land managers in the Northwest Arctic or NANA region. The Subsistence Resource Commissions are also federal subsistence advisory bodies, and they tend to focus most specifically on the parklands. So, we have one for Cape Krusenstern and Kobuk Valley, and anyone from NANA region can serve on any of those commissions. What you are referring to, I believe, is the State's Advisory Council, the ACs, and it is my understanding that the State has a new Council Coordinator Sam Kirby and is working to get these various groups back up and running. And if your community would like her contact information, I can pass that along, cause I know that there's several of these that have not been meeting for a while. Thank you.

CHAIRPERSON BAKER: Yeah, if you could disseminate that to Lisa, she'll pass it out to us. Are there any other questions or comments for Emily and the SCRs?

(No response)

Hearing none, thank you both for your – oh, Verne did you have.....

MR. CLEVELAND: Yeah, I was in the Lower Kobuk -- I well, I was going to be late cause of the cousin's cold and food wasn't cooked. But yeah, I was in a Lower Kobuk Advisory. And then what happened? I mean, we -- disappeared or something. So, I saw another one here called what, SRC now? Kobuk or something? I see you got some seats vacant. Maybe we will be interested in those. I'll probably talk to you later. Thank you.

CHAIRPERSON BAKER: Thank you for that -- presentations. Wes will move on to the next item, which is the Gates of the Arctic National Park and Preserve 2025 winter update. Marcy Okada, are you on the line and ready?

MS. OKADA: Thank you, Mr. Chair, Council members. For the record, my name is Marcy Okada subsistence coordinator for Gates of the Arctic National Park and Preserve, and I'd like to refer you to tab 10, in your supplemental meeting packet. And I will provide an update on our Gates of the Arctic Subsistence Resource Commission before handing it off to Kyle Joly to give a caribou update. So, Gates of the Arctic National Park and Preserve Subsistence Resource Commission covers three different regions: North Slope, Northwest Arctic and Western Interior Region. And so, your advisory body, your RAC appoints a RAC member to our SRC for Gates of the Arctic and currently its Tristen Pattee, who's sitting there with you. And we also have another upper Kobuk seat that's filled by Raymond Woods from Shungnak. And our SRC met on November 13th and 14th in Fairbanks. Similar to your RAC meeting, we had a variety of presentations shared with our SRC, a Carnivore Local Knowledge Project and a Brooks Range Fish Research Project, both conducted by the Wildlife Conservation Society. We also had a rusting rivers presentation shared with our SRC and a presentation about dall sheep ecology and a health assessment done by the Alaska Department of Fish and Game. Our next meeting was supposed to be scheduled in Ambler in April, so next month, but unfortunately, we've reverted to a teleconference type of forum for our April meeting. And we're gonna continue to have discussions about the Western Arctic Caribou Herd and dall sheep management within Gates of the Arctic National Park and Preserve. And so, I'm gonna hand -- if there aren't any questions, I'm gonna hand it off to Kyle to discuss caribou research projects that are currently happening.

CHAIRPERSON BAKER: Kyle Joly, are you on the line?

MR. JOLY: I am, can you hear me okay?

CHAIRPERSON BAKER: Yes, we can now.

MR. JOLY: Great. Hi, everyone. My name is Kyle Joly, I'm a caribou biologist for the National Park Service. I was just gonna report on some -- three different papers that we've published on our research. The Park Service has put out GPS collars since 2009, in the Western Artic Herd, and I've been working with caribou for about 30 years now. So, the first one is the next portion of your handout. What we did was we looked at survival of adult female caribou in the Western Artic Herd. One of the things that we noticed, and you all have noticed and commented on, is that there's been a change in migration patterns. And so, previous to 2016, usually about 75% of the collared females would cross the Kobuk River in winter south, since 2016, we've seen a lot less, about half as many migrating south of the Kobuk River. And so, that's been a large change that's affected subsistence hunters across the region. One of the things that our analysis showed was that caribou were dying at different times of the year. Before 2016, a lot of the mortalities were during the summertime, but that has changed, and the bulk of mortalities are now in wintertime. One of the interesting findings of this paper was that when caribou did well on their winter range, they survived at a high rate, they tended to go back to that winter range. And so, if they had good conditions, they survived well they went back, and when things turned and survival declined, they abandoned those winter ranges and stayed up further north in the Brooks Range and even on the North Slope. And so, the animals are trying to adapt to the conditions that are being presented. I'll take questions on that one before I move to the next page and next paper.

CHAIRPERSON BAKER: Any questions at this time? If not, you can continue. Mike.

MR. KRAMER: Hi, this is Councilman Kramer. On you guys' collared data, when was the first collars that crossed the Noatak, in what date or what month? Reason is, is cause I'm trying to come up with a date line as to when, you know, the first group start to cross the upper Noatak and start working their way toward Kobuk River.

MR. JOLY: Yeah, thank you. That's an excellent question. We actually do track that. I don't have the answer off the top of my head. The numbers that I have off the top of my head are for the Kobuk River rather than the Noatak River. But we do have an annual report that documents the crossing times of both those rivers. Off the top of my head for the Kobuk River when we first started putting collars, GPS collars out the caribou were crossing the Kobuk in late August which people thought was fairly normal. But already starting to get a little bit later than, you know, a decade or two before that. To contrast that, in 2020 we didn't have the first animal cross the Kobuk River until November 2nd, and so that's a delay of more than two months in a span of just ten years.

So, if you give me a moment, I will try and get the information for you for the Noatak. And I think OSM staff should be able to give you information -- the annual report that contains all this information. All right; I'm pulling it up now. So, for the Noatak River it's quite variable, we have the average crossing in 2023 was September 28th. The year before was September 25th, year before that was September 16th and the 26th, the 6th. 2018 was a very late year, that was October 13th. And mostly in September, a couple of Octobers [sic] I don't have the information for when the first animal crossed. I know that some animals do cross as early as July, and those movements tend not to be part of the fall migration. They tend to -- the animals tend to cross the Noatak high up well above like the Nimiuktuk, and then they'll move westward towards the Village of Noatak rather than migrating south and what they do after that depends on what the weather brings.

CHAIRPERSON BAKER: Tristen.

MR. PATTEE: Through the Chair, Tristen Pattee. You know, I'm just -- after you've made your presentation there about the adapting animals you know, going up and down the Red Dog Road, I would -- you know, during high wolf years, I would notice them hanging -- a whole bunch of caribou hanging at the north side, and the south side of the road. Quite often they just kinda hang out. And we've, you know, we've often made comments like, yeah, we must be keeping them safe from the wolves. And do you think that's a potential cause they feel like it's a safe place.

MR. JOLLY: Yeah, I mean there's different factors that will impact the caribou movements. We have noticed delays in association with the Red Dog Road. But animals, wolves, predators tend to avoid humans, and that does make those places more attractive for caribou.

CHAIRPERSON BAKER: Any more questions at this time? Elmer.

MR. AMRSTRONG: Thank you. Elmer Armstrong, Noorvik. Is there any information on why they travel west to east sometimes in the summer grounds?

MR. JOLY: Yeah, that's an excellent question. And so, we do see that very typical movement. So, you know, the herd calves in the Utukok uplands and then they kinda drift southwest towards the Kivalina area, the Wulik Mountains and that's where they are most likely to be found during those huge aggregations that are associated with insect harassment. And when that insect harassment abates or lessens it's almost like clockwork, the animals just shoot west to east, across the Brooks Range, kinda up and over the mountains, like they're not even there. A lot of people tend to think of caribou crossing the Brooks Range north to south in their migratory movements, but that summer movement is very distinctly west to east. And you know what happens after that movement depends on what the weather and bug conditions are. A lot of times they'll drift north into -- back into the calving area up onto the North Slope. You know what specifically driving that that movement, I think it's the abatement of the insect harassment, and then, you know, searching out good areas to forage while the feeding conditions are good during the summer.

CHAIRPERSON BAKE: Verne.

MR. CLEVELAND: Verne Cleveland, Noorvik. Is there anything that would bring from Red Dog the noise that would turn the animal from west to east, cause we tried for years to as the caribou migration to have them quit drilling and blasting during migration. But seems like it didn't happen. So, you think that the noise from the Red Dog Mine is affecting the migration big time or what?

MR. JOLY: Thank you, Council member Cleveland. Kyle Joly, for the record. We have documented that the road is affecting caribou migrations. We're not

sure what is causing that, that's what we'd like to look at next in our investigations. We're not sure if it's road, or if it's road dust or you know, potentially the road being elevated. We're not really sure what that is. That is where we wanna go next, so we can try and mitigate those impacts on caribou flow. In terms of, you know, explosions or something like that at the mine. Generally, when we see that west to east movement, it starts west of the mine and flows past the mine to the east. So, you know, I'm not sure what the blasting schedule is, but the flow does actually take them from west of the mine, past the mine to the east. So, I guess, you know, that's where we want our research to go, is to try and figure out what impedes caribou movements and what doesn't, so we can try and lessen those impacts.

CHAIRPERSON BAKER: Verne, did you have a follow up?

MR. CLEVELAND: I know that for a fact our changeable weather is a factor. It's a lot -- been a lot warmer in our area than before. That's what's affecting the migration big time cause a lot of bugs on lower areas and they try and stay up in the mountains. But as a hunter, some guys report that they're way up on Kolli River, and they could hear the loader backing up, just like backing up right to them from 100 miles away. And the sound in the nighttime goes faster than -- you know, so it affects the animal, and I know it does. So, maybe I'll talk to some of these hunters from Noatak that are way upriver hunting. And the noise they hear from Red Dog, it's just like, right around the corner, so -- and often they -- they often just say that to me. I want put it in writing so I can document it, but nothing yet. Thank you.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: (Indiscernible) is Mike Kramer, through the Chair. How many times last year -- excuse me -- did the caribou ping off of the Red Dog Road until they -- did any cross last year? Cause I know that this last group of caribou we got that passed through here, I was kinda wondering where they came from. I know that a few years ago when the caribou came to here, there was only about a four or five day window where people hunted caribou, and then a couple other people tried to go back here to look for them. Man, they marched all the way down to Callahan in like four or five days. That's some pretty rapid movement from, you

know, a caribou herd or a group of caribou. Yeah, my concern is just, you know, the pinging off the Red Dog Road. And a few years back, I was with a friend of mine up at the Kelly River, and we were fishing for trout, and you could hear backup alarms like there -- like Verne says they're just right there. I mean, you're looking for, you know, the headlights of a mining vehicle on the mountainside. But yeah, that sound carries a longways. And it is kind of concerning, you know, if it's gonna continue farther east, you know, will it pull the -- push these caribou farther east, or will it change their migration? Will it start to allow more pinging and further east the road goes? That's my question. Thank you.

MR. JOLY: Through the Chair, Kyle Joly. First, thank you both for those observations, Council members Cleveland and Kramer. I think they're excellent, and I too think looking into the how far sound carries is really important. And you know, I've been in talks with Dr. Brinkman, who was at the meeting today. We're hoping that we might be able to investigate that. It is amazing how far sound can carry. So, that is something that we would like to investigate, hopefully we'll get some funding to look at that further. Mr. Cleveland's observation about weather and bugs, you know, that is, you know, really important. And you know, temperature is definitely a driving factor, that's something that we heard from him and the working -- the Western Artic Herd working group, and we were able to use some western science to quantify that and, you know, corroborate, you know, what people are seeing out there. During that fall migration, we were able to document in our way and corroborate with local observations that cold temperatures and increasing snowfall kinda drive the caribou southwards. And when it stays warm, the bugs stay out, they don't like to make those movements. As for Mr. Kramer's question about the Red Dog Road, this fall. Early on I was watching the caribou movements, and it looked like the bulk of the herd might come across the Red Dog Road, they were quite a lot of them. Probably 50-60 miles north-northwest of the mine. I alerted the mine that there were quite a few collars, I can't remember how many exactly off the top of my head, but more than I've seen in a long time, kinda piled up. They actually just stayed there for several weeks, and then they drifted off to the northeast and eventually east and then migrated south. And so, they didn't interact much with the Red Dog Road this year.

CHAIRPERSON BAKER: Mike, follow up?

MR. KRAMER: Yeah, I just have one more question. One thing that we weren't provided in any of our material as I looked over it earlier, was the proposed new area that Red Dog was gonna be mining, you know, that map was not provided to us for the area that it is, that they plan on mining either now or beyond 2031. I was kinda hoping to see something like that, or even EIS from their Red Dog Subsistence Committee, regarding the new area. If there's gonna be any other impacts. But that's one thing we have not heard from -- with Red Dog Subsistence Committee or Red Dog as a whole or NANA regarding the new location, the plan -- the area they plan on mining next.

CHAIRPERSON BAKER: Tristen.

MR. PATTEE: Through the Chair, this is Tristen Pattee. Kyle, you know, within -- with your 30-year career, I'm sure you have loads of collar data through -- throughout the -- throughout your entire career. I'm wondering if it would be good to get the data of those -- of, you know, 30 years that you have at Onion Portage. The river goes east to west, and there's multiple gunshots at Onion Portage, there's multiple boats, there's multiple things that actually interfere with a caribou's migration. I would like to see if the data shows that they still go -- migrate south.

MR. JOLY: Yeah, thank you for those questions. I'll start with Mr. Kramer's. I think there was a Red Dog person on before, if they're on now, that'd be great for them to jump in. If not, my understanding is that they're planning on extending the road from the mine northwards for about ten miles to a deposit there. And that's probably as much information as I have to share on that. For Mr. Pattee's comment, I - question, I would say that looking at the data we've never seen any deflections at Onion Portage. I've been there a number of times, probably not nearly as many times as you being an Ambler resident. But, yeah, I mean, there's people cutting firewood, there's sometimes ten different boats, there's gunshots, sometimes those are from high powered rifles, sometimes they're from 22s, there's people camped out there. I have not seen any indication that those subsistence activities are deflecting caribou at the Kobuk River. The only time that I've noticed potential deflections along the Kobuk River is in more

recent years I've seen them, and I haven't been able to quantify it yet, but I believe it's the later migration. The animals are reaching the Kobuk River as pancake ice is forming, and they don't like to cross the river then. And so, then they start moving west to east or east to west along the river waiting it for either a thaw to happen so they can swim across the river or a freeze to happen so they can walk across the river, but I have not seen any indications of deflections due to subsistence activities.

CHAIRPERSON BAKER: Thank you for that. Kyle, did you have more to report on? I know we got in the thick of a bunch of questions and comments. Was there more to your report or to Marcy's report?

MR. JOLY: Yeah, I had two other reports that I can just briefly touch upon, there on the next page of your handout. So, the next one, I mentioned that you know, some animals are staying up north and some animals are heading south of the Kobuk River to winter. And so, what we did is, we looked at what the animals were doing, and what we found was that the animals that stayed north, they moved a lot less about half as much as the animals that move south. And the animals that move south and wintered south of the Kobuk River, they found two and a half times more lichen abundance or lichen cover which is their primary winter forage. And so, we think, this is evidence that the caribou that are migrating are migrating to go find those lichens, and when they do get down there, they're moving more to try and acquire more lichens. And so, they're trying to get as much energy as they can over the winter, and they'll have the expense of moving about more to acquire more lichens. Whereas the animals that stay north of the Brooks Range, there's less lichens up there, and they tend to get into an energy savings mode where they tend to move less and just try and eke it out through the winter. And so, that paper was in the Journal of Mammalogy. I'll take any questions on that if there are any.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: Yeah, the one question I have is, when you were talking about lichens, have you guys done any studies within their migratory range, whether they eat themselves out of house and home?

MR. JOLY: That is a fantastic question, Mr. Kramer. I would say I'm currently working on an analysis looking at just that. The place that I think probably will have the most evidence of that is on the Seward Peninsula. We've seen large declines in lichen abundance, especially on the northern Seward Peninsula, and it does seem to coincide with the Western Artic Herd moving into that area and up to 80% of the herd spending their entire winter up there. And so, I suspect you're correct, and I'm working currently on trying to quantify that using some western science.

CHAIRPERSON BAKER: No other questions, so you may continue.

MR. JOLY: Great. The last one, which is also on the same page, is a paper that I was part of, and also, Alex Whiting who's from Kotzebue, most of you probably know. And we worked with a bunch of Canadian scientists, and what we were trying to do is just trying to document the state of caribou across North America. And so, that paper is just kind of a -- an overall how are caribou doing in North America right now. The overall story is not super positive, caribou across the northern area where you find the big migratory herds like the Western Artic Herd, they're down about 65% off their population highs. There is some variability, most notably is the Teshekpuk Herd, which until the last census has been doing very well. But across the continent they're not doing very well, and there's been some declines up to 98% or 99% of the herd has disappeared. So, that's part of a technical report called the Arctic Report Card. And I'll be happy to take any questions on that as well.

CHAIRPERSON BAKER: Seeing no questions for that. Any final questions or comments for Kyle?

(No response)

Seeing none. Thank you, Kyle, for your reports. Marcy, did you have anything else for Gates of the Arctic or does that conclude everything for Gates of the Arctic Park and Reserve update, as well as the SRC, which I believe you mentioned, but did you have more to report on the SRC?

(Simultaneous speech)

MR. JOLY: Mr. Chair.

MS. OKADA: Oh, go ahead, Kyle.

MR. JOLY: Sorry, Marcy. I just wanted to say thank you, Mr. Chair. I appreciate it, and I'll send the latest annual report to OSM staff so that they can share it with you all.

CHAIRPERSON BAKER: Thank you for that, Kyle.

MS. OKADA: So, Mr. Chair, Council members, just to wrap up real quickly, the final page of your handout, we touched upon sheep a little bit yesterday, but last time the portion of Unit 23 that falls in Gates of the Arctic was surveyed was 2015. And unfortunately, this year there won't be any surveys in that area either, but we will continue to be surveying the northeastern and southeastern portions of Gates of the Arctic this coming summer. So, that's our update for Gates of the Arctic. Thank you.

CHAIRPERSON BAKER: Thank you for that. And just to confirm, that takes care of the winter update, as well as the Gates of the Arctic Subsistence Resource Committee – Commission?

MS. OKADA: Yes. Thank you, Mr. Chair, Council members.

CHAIRPERSON BAKER: Thank you for confirming that. How about we take a five-minute break and then we'll move right into Ms. Luby's presentation?

(Off record)

(On record)

CHAIRPERSON BAKER: All right, it is 2:40, we will move on to the next item on the agenda. We will be hearing from Ms. Caitlin Luby and Mr. Todd Brinkman. If you'd like to come up and put yourselves on record, you have the floor.

(Pause)

MR. BRINKMAN: Good afternoon, everybody. My name is Todd Brinkman, I'm a professor of wildlife ecology at University of Alaska Fairbanks.

MR. LUBY: And I am Caitlin Luby and I'm a master's student in Todd Brinkman's lab.

MR. BRINKMAN: So, I'm gonna begin today by just providing a quick overview of the project that we're just about to start, and then I'll hand it off to Caitlin to share some specifics with all of you. So, this is a collaboration between the University of Alaska Fairbanks, the National Park Service, and Alaska Department of Fish and Game. Our other kind of co-investigator on this is Kim Jochum, who's on the phone today. The overarching goal of the project that I'm about to share with you is a result of attending and listening to folks at various meetings about caribou over the last several years, trying to identify what their pressing concerns were, what their research priorities were, and then working with the National Park Service and Alaska Department of Fish and Game to figure out what we can do at the University to complement other efforts that are already underway. But to dive right into the goal of the project that we're just beginning, it is to provide comprehensive information on how the availability of caribou for communities has changed in the Northwest Arctic over time. And so, the motivation for this research is -- and this was talked about yesterday, that the harvest reporting on caribou is considered to be a little bit imprecise and incomplete. And there's a need to create maybe a better historic reconstruction of how the availability for communities has changed as this population has went through this big cycle over the last 30 years, and that's what we plan to do.

So, we're gonna try to pull data from all the different sources where it's been collected. So, you can think about the Alaska Department of Fish and Game comprehensive household surveys that are conducted every so often. Each year, many communities are doing their own harvest reports to ADF&G Division of Wildlife. We have entities like this that are meeting a couple times a year, where we're pulling from your minutes over the last several decades. We're using sources like the minutes from the SRC meetings, the Western Arctic Caribou working group meetings, and then we're also gonna be using collared data and information like that. So, you can think about all these different sources of information that we're gonna try to pull together to better understand over the last 30 years, how the availability for all the communities in the Northwest Arctic has changed as the caribou population has

changed. And now I'll turn it over to Caitlin Luby here, which will tell you about where we're at in this and what our next steps are.

MR. LUBY: Thank you. And thank you, Council members. So, for some context, I started on this project in fall of last year, and I am kind of in the first phase of my research which will be kind of filling in the gaps on the grid on the back side of the handout that I gave you. And just for a little more context about that, the series of graphs on the right-hand side of the first one is kind of the broad trends that communities have reported through the Division of Subsistence for ADF&G, which captures a trend, but it doesn't capture the full picture. So, on the reverse side, I'm trying to fill in as many of those areas that are missing sources of data with kind of a broad picture of whether availability in communities has been good, has been bad, or has kind of been the same. So, just a coarse assessment of what that looks like. And then in -- after the summer and starting in the fall, I'm -- I'll be moving into kind of the second phase, which I hope to address what implications communities are facing as far as food security goes and which can take a number of different directions. And I -- part of this project I was hoping to be able to visit communities and have a little bit more of a discussion about that, but with some funding changes, that may not happen. So, this is serving as an introduction of what we're doing and what our project looks like. And in the fall, I'll be hopefully presenting it to you again to give you an update on what that looks like. You have anything to add?

MR. BRINKMAN: Yeah. So, today was about sharing with you all what we're doing and what we plan to do in the future. But obviously we'd like you to engage in the process and be part of it as we move forward. When Caitlin finishes filling in the spreadsheet with all the data that we have available to us, there's still gonna be some holes and there might be an opportunity for us to work together to fill in a few more of those. And I don't wanna over promise expectations here but say that we were able to bring in all this rich information and get a better picture of harvest, and how it's changed over time. It could actually improve on our harvest estimates or help us design a new method to get at a more accurate assessment of what harvest is on this herd. And then the last thing I'll share, and then I'll open up for questions or

comments if you have any is -- yeah, like Wil articulated nicely early, there's a tremendous amount of uncertainty. We were awarded a contract through the National Park Service last summer that had us fully supported for the next two and a half years to complete this work. In early February we went in to bill the award, so how it works with the University is we go online, and we submit our invoice through an online portal, and then we get paid for the work performed. The award was gone, it had vanished from their system, so there was no one to bill. Nobody told us that the award had been removed, nobody told us why, nobody told us to stop spending. So, right now, we're still trying to figure out what happened and if that award will return. If it doesn't, we're still gonna try to limp forward and do the best job we can to achieve our objectives. But it's gonna be obviously much more difficult without the funds to support students like Caitlin and others that are involved in the project. Thank you.

CHAIRPERSON BAKER: Questions? Elmer then, Clyde.

MR. AMRSTRONG: Well, with that being said. Elmer Armstrong, Noorvik. I would like to make a motion for a proposal to write a letter in support of the UAF collecting data. And, who would we write the letter to, if you could...?

MR. BRINKMAN: Through the Chair, to member Armstrong. I think if you -- I can give you contact information at UAF on who would be good. Otherwise, you can address it to me, and I can share it with our leadership and/or those other potential organizations that might provide funding, cause that's our next step, obviously, is to pursue different channels to try to make this happen.

MR. AMRSTRONG: Thank you. Through the Chair, Elmer Armstrong, Noorvik. Just for justification. I think UAF will be good at collecting data as -- because of the numbers are declining, and I think it's very important to food security. Thank you.

CHAIRPERSON BAKER: Motion made by Elmer. Do we have a second?

MR. KRAMER: Second.

CHAIRPERSON BAKER: Seconded by Mike.

MR. RAMOTH: I'll call for questions.

CHAIRPERSON BAKER: Before we go into calling for the question, does staff have all the direction they need? See a thumbs up. So, all those in favor, please signify.....

MS. HUTCHINSON: Tristen.

CHAIRPERSON BAKER: Tristen

MR. PATTEE: Just real quick. Through the Chair, Tristen Pattee here. Yeah, I think with this project and our declining caribou herd, I mean, the implications are pretty massive. So, I think it is very important for this project to move forward. Just to kind of help our communities kind of see what's going on with this and then kind of learn to adapt. You know, we have to figure out what we're gonna do next, you know, because we -- you know, with this type of data, we could say, okay, this is what's going on, and okay, this is what we need to change in our lives, this is what we need to do going forward. So, I think this is just something that could really help us see a big picture of everything. So, appreciate your hard work.

CHAIRPERSON BAKER: Verne.

MR. CLEVELAND: I think we're not the only ones that are declining, right. There's Canada, Norway, wherever there's caribou, there's -- they’re in the decline, too. And we're not the only ones that are in decline on caribou. It's Greenland, wherever those caribou are they’re in decline too, right?

UNIDENTIFIED: Yeah, thank you.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: I yeah, I kinda hope that you guys would get your guys funding back. You know, one question I wanted to ask, you know, the caribou biologist that we had here, you know, when was the first collar placed on a caribou? That's my curiosity. And how far back it was? Some of the best information that you guys can get is from some of us baby boomers and prior baby boomers. You know, people that were born in the 60s, late 60s or 60s, cause I grew up here. I could remember back in the day hunting caribou with my dad in the back

seat of a Super Cub, all the way to where, you know, when my dad left here, you know, I thought I knew the land like the back of my hand. It was a lot different when you're on the ground. One thing I noticed when I started going out with snowmachines and stuff that be -- prior to Red Dog, you know, we used to go caribou hunting up here Labor Day weekend right up here on the Lower Noatak. You're crossing the river all the way up to the Aggie, the hatchery and so on, they were always crossing the river up to (In Native). You know, us have a lot of knowledge, a lot of our elders are gone, but we still have a lot of elders remaining, and that's where most of your most prized information should come from. You know, it's just flying into a village, and just schedule a meeting with elders and say, hey, how has the last 30 years been with caribou in your guys eyes as subsistence users migration wise. You know, has the food security changed, compared to back then when it was 75,000 head compared to when it was 500,000 head, now to where it's at 133 maybe thousand head? You know, it used to be a lot different here. Once Red Dog Road come, yeah, there was no getting caribou up here at the, you know, from the mouth of the river all the way up to Hugo, Knapp Creek, Aggie, (In Native) hatchery, that whole area there where we used to go hunt. That's where we used to take our Labor Day weekend, now you have to go almost 150, -60 miles away, not even on a Labor Day weekend. Labor Day weekend is just a regular weekend, you know, because that's not when the caribou are moving through anymore. Now it's into October, and you're very limited there because you're at the edge of freeze-up. You know, and like, you know, the biologist said, was caribou do not like to cross in pan ice. They prefer to mingle way back until it either freezes or they could find a opening to swim across. There's been a lot of changes in the last 30-40 years that I have seen. I know not too long ago, I was interviewed by a gentleman on the East Coast, either the college -- I ought to find out who he's with. But he was doing a -- his own subsistence study, he spent the summer here with -- at my brother and -- with my brother, and you know, he got to see subsistence, you know, at hand by being out with us, boating and such. But yeah, it's a dying culture, and you know, a lot of us baby boomers who still can recall back in the day, I know Elmer grew up here, I grew up with Elmer. You know, we used to just go hunting not very far away compared to now, man it's crazy. It's -- you gotta go way up there. And it's beginning to get harder, a lot of people are starting to wait for the winter group of caribou to start coming through, because

-- and see, before they closed down the cows, everybody was hammering the cows down because the cow meat was better then, from October to December because of the fat -- and at that time, they have minimal embryos compared to now they have like, full calves in their stomachs. So, every time you kill a cow, now, you know, you're doubling that.....

(Simultaneous speech)

MR. KRAMER: So, it's very critical now. And I hope you guys get your guys' funding back. I would probably be getting with Siikauraq and whoever it is that, you know, is the administrator or superintendent here to see if you guys can regain that funding, because that's a very, you know, that's a very serious thing that, you know, that's from our past to our future and I think it needs to continue. These kind of studies should be funded by State, whoever, you know, local government, whatever it may be, to try and see you know, compare to what it used to be in the past. I know that my brother and -- who is our past coordinator? Zach Stevenson. They did a subsistence mapping study over at Northwest Arctic Borough, and they got with so many people from the villages here, you know, everywhere and say, where did you hunt wolves? Here, here, here and they'd circle, circle. And you know, a lot of those places overlapped, and you guys could probably get a lot of information from that. And that's at the Northwest Arctic Borough, I'm hoping that they still have it. But Zach Stevenson, my brother Lance, were the ones that did that study, the subsistence mapping because of the fact that in the future it will help us with preserving certain areas from mining, you know, other issues that we are now starting to face. Thank you.

CHAIRPERSON BAKER: Elmer, more for justification?

MR. ARMSTRONG: Yes, just to follow up on Mike's question about subsistence mapping, I don't think up river was done, I think it was Lower Kobuk. And you know, the data they collect, we could use it. It's very important when they do these -- when they come to our meetings and explain the data. Thank you.

CHAIRPERSON BAKER: More discussion for justification for Elmer's motion to draft a letter?

(No response)

Hearing none. All those in favor, please signify by saying aye.

IN UNISON: Aye.

CHAIRPERSON BAKER: And those opposed, same sign.

(No response)

Hearing none, the motion passes. You can start your presentation now.

MR. BRINKMAN: Chair, we don't have much more new information to share, but I can address a couple of things that member Kramer shared. If the funding does return, we did budget for key respondent interviews with the ideas is, after we get all this publicly available data assembled and organized, we can then go in and talk to folks with a long history of knowledge and look at what we have, both to validate what we're seeing based on that, but also to help us address some of those holes. And then on the GIS or the -- those maps that have been prepared over years, we were really grateful to ADF&G that they're entering into a data sharing agreement with us to give us access to that information. So, we'll have that as another source to kinda see this not across space, but also what member Pattee said about -- and member Kramer said about timing that's so important too, of course, about how that can affect availability and availability of bulls versus cows.

I didn't describe it cause I didn't want to get into the weeds. But when we think about availability, you need enough of that animal around to be able to sustain a harvest. So, you need abundance. That animal has to be in the right place at the right time. So, you think about distribution and timing of migration. And then thirdly, you have to think about access, even if that caribou is in the right place at the right time, people still have to be able to traverse the land and get to it, and that's where issues like river ice comes into play. That season of inaccessibility where you're starting to get just enough ice on the river that you can't be on your boat anymore, but it's certainly not safe enough to get across with a snowmachine. That can be really troublesome. So, we're thinking at a deeper level already than what I shared, cause I didn't want to take everybody into a deep hole

here. But over time, we can continue these discussions, and I'll keep everybody informed on what Caitlin and I are trying to do here.

CHAIRPERSON BAKER: Mike.

MR. KRAMER: Yeah. You know, it's been quite a while since that subsistence mapping, and I think that when you guys do get your funding, start a new one. If there was a difference from back then to now. And I know there's gonna be a big difference, cause right now, food security can't be any more important than it is now, and it was always then. You know, food security here has always been very important, and now with the government going the way it is, you know, it's gonna be at its peak, for us to be able to harvest these animals unhindered. Thank you.

CHAIRPERSON BAKER: Final questions, comments. Clyde.

MR. RAMOTH: I think I still have that question I wanted to ask 20 minutes ago, but so the caribou population matrix, subsistence harvest reporting public meeting transcripts. Your guys studies through that 24-25 season for the communities. I see decline in certain areas, but not everybody will report. I think we talked about it yesterday, too, about submitting a honest report of their harvest. But like I mentioned yesterday that the family could get 15, but they're getting like five for each family or clan or whatever, because not everybody have the resources to hunt or the transportation. So, you guys feel comfortable with these data sources. I know it's important in how we get funding, yeah.

MR. BRINKMAN: Through the Chair. What we're arguing is that any one source of information could probably be improved on, which is why we're gonna look at that from a bunch of different directions, from a bunch of different angles, using a bunch of different sources of information to see where maybe the evidence corroborates. But then if we're seeing big differences, maybe in what we're getting from the minutes or from ADF&G Division of Harvest versus Division of Subsistence versus something else that suggests to us that we might need to think more carefully about how accurate that estimate might be there. And the collar data, of course, will be very valuable as well to let us know where certain animals were. What we don't know is where they

were not, since collars are -- of course, there's only 100-130 of them, and there's a lot more caribou out there moving around.

CHAIRPERSON BAKER: Any more questions, comments?

(No response)

Hearing none. Thank you for your presentation, we appreciate your time and sitting through all of this. Good luck and hope to hear back from you this fall.

MR. BRINKMAN: Thank you.

CHAIRPERSON BAKER: With that we will move on to our next item on the agenda, which will be Dr. Hannah Voorhees with the FRMP update. The floor is yours, Dr. Voorhees.

DR. VOORHEES: Thank you, Mr. Chair, and members of the Council. Again, my name is Hannah Voorhees, I'm an anthropologist for the Office of Subsistence Management, or OSM. And I'm joined on the phone today with my colleague, Kevin Foley, he's a fisheries biologist with Office of Subsistence Management, and he is standing by to help out and answer any questions you may have. So, first -- actually, I wanted to give you a brief update on the fisheries regulatory cycle. I have three fisheries related updates. So, first, I just wanted to briefly mention that the Federal Subsistence Board met in February, and they acted on all the fisheries proposals and closure reviews that were presented to them. And we expect that the new regulations will be published in the Federal Register either in the spring or summer. But there were no proposals pertaining to the Northwest Arctic region this time around. The next fisheries cycle will begin in winter 2026 at your meeting then. At that time, we'll provide the Council with a list of the closure reviews that will be coming up before you. And you'll be able to put in some new fisheries proposals, if you have any, at that time. So, that's the end of the fisheries regulatory update. Does anyone have any questions?

(No response)

If not.....

CHAIRPERSON BAKER: Continue.

DR. VOORHEES: Thank you, Mr. Chair. So, next I'll be presenting on Office of Subsistence Management's Fisheries Resource Monitoring Program, and there are no materials for this update. The Office of Subsistence Management administers the Fisheries Resource Monitoring Program, which will often hear referred to as the FRMP, to gather information for the management and conservation of subsistence fishery resources in public waters -- federal public waters. And the Monitoring Program also exists to support meaningful involvement in fisheries management by Alaska Native and rural organizations. And the intent is to promote collaboration between federal, state, Alaska Native and local organizations.

OSM recently published the Notice of Funding Opportunity for the 2026 Fisheries Resource Monitoring Program, and that means that we're now open for proposals, and the due date for those proposals is May 16th. So, what this means for this Council is that in the -- this past fall, during your meeting, you decided on a list of important research topics that you wanted researchers to look into. And we've now published your topics that you picked, and now we're inviting researchers to suggest projects that will help fill those information gaps and bring information back to the Council, ultimately. So, applications will be reviewed by the technical review committee when they're received, which - we'll then provide summaries of project proposals for your region, and then this Council will have the opportunity to weigh in again. This is the next step of the process where you get a chance to weigh in after creating the Priority Information Needs, you'll be able to comment on each project. So, this concludes my update on the Fisheries Resource Monitoring Program and I'm here for any questions you may have.

CHAIRPERSON BAKER: Elmer.

MR. ARMSTRONG: Through the Chair, Elmer Armstrong, Noorvik. I know you're talking about fisheries, but what about the Magnuson-Stevens Act is that state or federal?

DR. VOORHEES: Kevin, do you have information you'd like to share with the Council on that topic?

CHAIRPERSON BAKER: Our resident biologist, Bill Carter, in the room raised his hand.

DR. VOORHEES: Thank you.

(Pause)

MR. CARTER: Yeah, Bill Carter, Selawik National Wildlife Refuge. The Magnuson-Stevens Act is a NOAA administrative act, it's about ocean fishing. So, it doesn't necessarily deal with this. The -- yeah, the harvest of groundfish is what it mainly pertains to, and that also means the quotas for bycatch and things like that. So, that's what the Magnuson-Stevens Act deals with. And it created the 200-mile exclusive economic zone for trawlers. So, foreign trawlers can't come into the U.S. within 200-miles of the coastline to fish. So, like Russia or China, they can't come in within that distance to fish.

MR. ARMSTRONG: Thank you. Just for a follow up. Elmer Armstrong, Noorvik. Does this body have power to send a resolution to NOAA?

CHAIRPERSON BAKER: This body has sent a letter regarding trawling, at last winter's All RAC meeting. Are you wanting to do something similar, or what are you considering making a motion to write a letter about?

MR. ARMSTRONG: No, I just wanna have better understanding. Thank you.

CHAIRPERSON BAKER: So, we are able to send a letter to whoever. It's just -- just need to have that discussion like with everything else of what the intent is.

(Pause)

Any more questions? Mike.

MR. KRAMER: I know earlier we touched up on salmon. I can -- you know, my -- what I see is I would like to see that, you know, that both you guys and Alaska Department of Fish and Game start working on a sonar project on the Kobuk and Noatak. Cause, you know, the main concern is returns, successful escapement for future runs, both subsistence and commercial. And with both of you guys working hand in hand, ensuring that,

you know, there is a good escapement, salmon are successfully spawning for future runs. I know that high water plays a pretty serious role in the devastation of some of our roe that are in some of the beds. What I would like to see is eventually, you know during the lowest water time of the year, you know, to maybe go up and go see, you know, where their spawning beds had occurred last fall. I mean, if there was a possibility. Cause that would be very interesting to see if that high water played a devastating role in the hatching of the baby salmon in the streams, and whether they did spawn. And it would be a continuing concern for the next several years cause, you know people in the Yukon can't even subsistence fish for king salmon and such, but they could waste millions of pounds out there in the ocean of crab, halibut, salmon, king salmon, chum, sockeye, reds, you name it. When here we're struggling as subsistence users to put fish in our freezers. There needs to be a line drawn for those federal fisheries to stop this trawling cause it's beginning to affect our subsistence way of life, our food security. And as of now, as the government is going, it's a very serious issue. Food security is priority one. We're gonna start seeing a lot less things on the shelves, produce, meats, poultry, you know, eggs have already gone up. You know, everything is gonna start changing, so it would be good to start ensuring that our future runs of salmon, sheefish, and trout and char are starting to make it up to their spawning grounds successfully. You know, with partnership of the beavers, you know, the beaver dams, beaver lodges in the studies to try and see if we could start looking at possible ways to improve the survivability of these fry, salmon fry, trout, sheefish to ensure that we have future runs. Because right now our subsistence resources are starting to dwindle and we're starting to depend on others, and those are starting to dwindle. Eventually, when we no longer have caribou, moose, muskox are very limited, you know, what are we going to depend on? We only have what we have in the ocean, that's bearded seals, seals. You know, and it's gonna start getting pretty critical as time goes on. You know, with mining and everything encroaching and, you know, hampering the migration process, everything is gonna start being very, very serious and very, very critical for our people for the next 10 to 20 years. It's gonna be interesting to see how the next 10 to 20 years go. Thank you.

CHAIRPERSON BAKER: Any more questions or comments for this portion of the FMRP presentations?

MR. FOLEY: Chairman Baker.

(Simultaneous speech)

DR. VOORHEES: Through the Chair.

MR. FOLEY: Hannah, go ahead.

DR. VOORHEES: Go ahead, Kevin.

MR. FOLEY: Okay. Chairman Baker, yes, I'd like to respond to Councilman Kramer's comments, if I may.

CHAIRPERSON BAKER: Briefly, please.

MR. FOLEY: Thank you, Sir. I just wanted to point out that the current funding cycle that we have for the FRMP identifies two of the issues that Mr. Kramer brings forth. That is the changing river conditions and the effects on spawning salmon in the Noatak and the Kobuk River drainages, and the other point about abundance and migration timing of salmon in the Noatak and Kobuk River drainages. Those are Priority Information Needs that are currently identified in the notice of funding opportunity. And I would also use this opportunity to encourage anyone that may be considering applying to look at those PINs in helping us gather information. That's all I have, thank you, Mr. Chair.

CHAIRPERSON BAKER: Thank you for that. Anything else on this topic? Dr. Voorhees, anything else?

DR. VOORHEES: I just wanted to mention that there will be a new opportunity for you to look at the Priority Information Needs that this Council has carried forward and make any adjustments that might be needed in fall of 2026.

CHAIRPERSON BAKER: Thank you. There's no further -- Elmer.

MR. ARMSTRONG: Yes. Would they be able to compile information pertaining to the Magnuson-Stevens Act moratorium line between Bering Sea and Chukchi Sea.

CHAIRPERSON BAKER: When you say they, do you mean Dr. Voorhees or who are you -- just staff? Who are you hoping to have compile that?

MR. ARMSTRONG: Yeah, sure. Staff with the fisheries.

CHAIRPERSON BAKER: Is that something we can make a note of?

MR. CARTER: That would be a question for NOAA, they would be able to -- this is Bill Carter, again. Yeah, that would be a NOAA question, they could get you that information and the Alaska Fisheries Science Center in Seattle, probably.

CHAIRPERSON BAKER: So, if we can just have that added to the record to make a request for more information on Magnuson-Stevens Act for Elmer's question for our fall meeting. Sound good? Anything else, Dr. Voorhees?

DR. VOORHEES: Through the Chair. So, I believe Council Coordination could invite someone from NOAA to present an update to the Council. Thanks.

CHAIRPERSON BAKER: Verne.

MR. CLEVELAND: Vern Cleveland. With the fisheries, since the opening of the passage, is there any changes since the -- them ships are going through to the Northwest Passage? And we do any studies on that, on the ships going through the passage?

MR. CARTER: This is Bill Carter, again. I'm pretty sure that there's still a moratorium on fishing above the Diomedes you know, commercial fishing above that. That again would be a NOAA question, but that was in effect for a while. As far as shipping, just transiting through there I don't think there's been any studies on that, on any effects of that, on fish migrations.

MR. CLEVELAND: Or shipping or lead from Red Dog, nobody does any studies on that, any droppings on the river, I mean, on the ocean, they dump anything on the ocean or anything?

MR. CARTER: That would probably be a question for some -- for an oceanographer from UAF. There

are other -- there are regular studies on oceanography, currents, plankton, whales, all kinds of other things, you know, in the Chukchi and Bearing -- the Chukchi and Beaufort Sea. So, that would be a question for an oceanographer on one of those cruises, probably on the Sikuliaq, the UAF boat, so.

MR. CLEVELAND: I want to join that committee. Thank you.

CHAIRPERSON BAKER: Any further questions?

(No response)

Hearing none. Thank you, Dr. Voorhees. We will -- and Mr. Foley and Mr. Carter. We will move on to the next item on the agenda, which will be the Northwest Arctic Dolly Varden Population Study. Yes, Dr. Voorhees.

DR. VOORHEES: Thank you, Mr. Chair. There's one more brief update for you under this item.

CHAIRPERSON BAKER: By all means.

DR. VOORHEES: All right. Again, this is Hannah Voorhees. So, my next up and last update is on the Partners for Fisheries Monitoring Program. The Partners Program, as we call it, is a competitive grant for Alaska Native and non -- excuse me, rural non-profit organizations to strengthen Alaska Native in rural involvement in Federal Subsistence Management by providing salary funds to organizations so they can hire a professional biologist, or social scientist or educator. And the funds can also be used for science and culture camps, and paid student internships. OSM recently published the notice of funding opportunity for this program as well, with the same due date that is May 16th. And application information and supporting materials for both the Partners for Fisheries Monitoring Program and the Fisheries Resource Monitoring Program are available on OSM's website. And that is a doi.gov/subsistence/partners in the case of the Partners Program. And you can also contact Jarred Stone or Liz Williams for more information about this program and their contact information is on the Partners webpage if anyone is interested. And that concludes my updates, thank you.

CHAIRPERSON BAKER: Thank you for that. I'm sorry for cutting you off a little prematurely. Any final questions for Dr. Voorhees?

(No response)

Hearing none. Thank you. We will now move on to the -- item L, which is the Northwest Arctic Dolly Varden Population Study. Joe Spencer and Brendan Scanlon, are either of you on the line and available?

MR. SPENCER: Yes. Thank you, Mr. Chair. While I pull up the presentation, I think Brendan has something to share at the beginning of this.

MR. SCANLON: Thanks, Joe. Once again, this is Brendan Scanlon, Northwest and North Slope Fisheries Biologist for Fish and Game out of Fairbanks. I'm sorry I missed this morning conversation. I understand that there was some talk about sheefish, and I just wanted to go back just a little bit to tell you what we know and what we're planning to do. There was a Fish and Game Advisory Committee meeting in Kotzebue a couple weeks ago, and we talked a lot about chum salmon, we talked a lot about sheefish, too. I think we are all concerned about the harvest that's going on. Seems to be going up and up, and a lot of fish are getting shipped out of Kotzebue right now, and we don't have a measure of harvest. The subsistence fishery is unregulated, there's no harvest reporting requirements, no limits. The sport fishery has a bag limit of ten, but we have very poor data on -- from our statewide harvest surveys. So, we're concerned particularly with the crash of the chum salmon, how that's going to affect the sheefish populations. There seems to be a lot of fish around right now, fishing seems to be really good. Now is the time to maybe get a handle on this. And I appreciate Dr. Voorhees introducing the notice of funding opportunity, we saw that yesterday. The Department is planning to submit a proposal to run a sonar to count spawning sheefish upriver on the Kobuk, they spawn in a -- about a 40-mile stretch of the main stem, where the Pah -- is about the epicenter of -- the Pah River. We are going to use sonar for three years to count fish moving in. And we've tried this before, but we got the -- we -- our project was designed to count fish moving out after they finished spawning, and that was fraught with high water and ice, and it -- out of four years, we only got one really good count of spawning fish and it was about

35,000 fish, I think, in 2018. And that's the most recent stock assessment data we have for sheefish and like I said, we have no harvest information. So, we're gonna start this project, hopefully if we get funding through the FRMP, it'll start going on the water 2017 for three years. In addition to counting sheefish we will also count the chum salmon that go by. I feel comfortable that we'll be able to do this because we can measure length on these sonar outputs and the largest chum salmon is probably about the size of the smallest spawning sheefish lengthwise. So, we can find a good length cutoff to say that everything below this is chum salmon and everything above it is sheefish. So, yeah, I just wanted to mention that.

And also, during the Fish and Game Advisory Committee, we talked about proposals for Board of Fish regulations. The Board of Fisheries is meeting this fall. Proposals are due in April, and the Kotzebue Advisory Committee did submit one proposal to remove the commercial fishery limit of 25,000 pounds. So essentially, they would like to limit the commercial fishery for sheefish. The quota is up to 25,000 pounds, it hasn't -- I think, got close to that ever. But it's pretty low hanging fruit, probably makes sense not to have a commercial fishery if we're gonna be worried about the health of a population. So, just wanted to pass that along and thank the FRMP for funding opportunity, and I'll turn it over to Joe. Thank you.

MR. SPENCER: Awesome. Thank you, Brendan. Can you guys see the screen?

CHAIRPERSON BAKER: Yes, we can.

MR. SPENCER: Awesome, thank you. Alright, well, thank you, everybody, for letting me present some of the results of this project that's been going on for a while. My name is Joe Spencer, I'm a fishery biologist with the Alaska Department of Fish and Game in Fairbanks, and I'm also a graduate student in the fisheries department at the University of Alaska Fairbanks. And I'm here to talk about a joint project between Fish and Game and the U.S. Fish and Wildlife Service and UAF, where we're looking at the life history, migrations and stock mixing habits of dolly varden populations in northwestern Alaska. And this project was funded through the FMRP with the Office of Subsistence Management.

All right, so, the Priority Information Need that we are addressing with this project is the need to document changes in species composition, abundance and migration timing, especially in dolly varden and whitefish species in the Northwest Arctic to address changing availability of subsistence fishery resources. So, dolly varden, which are also known as trout, are one of the most important subsistence fish resources in the region. But there are still considerable knowledge gaps about general life history, characteristics, and migratory habits of the fish. So, the objectives for this project were to characterize the age at length, the age at first seaward migration, the frequency of seaward migration and overwintering locations of the dolly varden in Northwestern Alaska.

So, I'll start us off by giving a brief overview of what we already know about dolly varden life history in this region. So, like salmon, dolly varden spawn and rear in freshwater. They rear in the river for two to five years, and then they begin migrating to the ocean every summer. And once they begin migrating to the ocean, they'll do so most years, with the exception that they may skip the year that they spawn. So, they might not out migrate the year that they spawn, they'll just hang around in fresh water and spawn later that fall rather than go to the ocean. But there are a couple of important differences between dolly varden and salmon that affect their management, and one of them is that they have the ability to spawn multiple times, so some of these dollies will spawn four or even five times. And another is that they do not spend winters in the ocean, so they're found in nearshore and freshwater habitats every year. And because of that, they're susceptible to harvest from humans every year as well, every spring and fall and winter, so,

The ocean is too cold for them to survive during the winter and so, every fall they return to one of several large rivers in Northwestern Alaska to overwinter in. And dolly varden from many different stocks across the region will congregate in one of these rivers to overwinter in. So, we do not know if they display particular fidelity to overwinter in rivers. But previous tagging studies have shown that there's quite a bit of interchange between rivers among years. So, these overwintering habits create a situation where people are fishing on mixed stock aggregations of dolly varden. So, how often these dollies migrate to the ocean,

as well as which river they overwinter in each year determines how often they're encountered in the fisheries and which fisheries they are encountered in.

So, this is a map that shows the major overwintering and spawning areas for dolly varden in Northwestern Alaska. Spawning areas are highlighted in purple, they're in the mountainous tributaries and mostly of the Noatak River tributaries, and also, the Wulik and Kivalina Rivers. And then the overwintering areas are highlighted in yellow, and these are the lower sections of the Noatak and the Wulik and Kivalina Rivers. There some dollies that spawn in the Kobuk River tributaries as well, but these are the main spawning populations in the region. So, this map shows the areas that we collected dolly varden samples for this project. Spawning areas that we sampled are highlighted in these purple boxes and include major spawning tributaries of the Noatak, and also, the Wulik and Kivalina Rivers, the headwaters. And subsistence and commercial fisheries that we collected samples from are highlighted in the yellow boxes and included fish from the spring ice fishery in Noatak, the early summer fishery in Kivalina, and bycatch from the commercial salmon fishery in Kotzebue. So, for the migration analysis, we had a goal of sampling 50 fish from each spawning area and fishery, and we were able to accomplish that in most of the areas here.

So, for this project, the samples that we collected from dolly varden include genetics and ear bones, which we can use to look at their migration, as Kevin Fraley talked about earlier in a different presentation. So, we collected samples from seven major spawning areas from subsistence harvests and from commercial harvests. And these are just some pictures, we were able to travel to Noatak in April a couple of times and work with folks catching fish through the river ice and get samples from them. And then in Kivalina, subsistence fishers were willing to provide samples from the spring harvest in 2022.

So, as I mentioned in the previous slide, we're using a microchemical analysis to determine the migration history of the dolly varden. And so, like Kevin said in a previous presentation, otoliths are the small ear bones of a fish, and as they -- as the fish grows, they grow. And so, we can use these otoliths to track their movements over time. What we do is we run a thin section of the otolith through a machine that

collects microchemical signatures across a transect that we draw across the otolith and it measures the elements, the chemical elements inside the otolith. And these elements are present in different levels in the physical environment, in waterways. And so, when a fish moves between different water bodies with different chemistries, we can see that in the fish's history in their otolith. So, for example, the ocean has a much higher concentration of the element strontium than the freshwaters do, so when a fish goes to the ocean, the level of strontium is much higher in that part of the otolith. So, in this picture here, this is a picture of a thin section of the otolith that we ran for microchemistry. And the concentration of strontium is the orange dots with the blue line through them. And the white vertical bars are the winters of the fish's life. And so, in this particular fish, the strontium concentration didn't change much for the first three years of its life. And then in the fourth year, it migrated to the ocean for the first time. And you can see the strontium concentration went way up, and so this fish spent three years in the river, and then in its fourth summer, it migrated out to the ocean, it made three ocean migrations, and then we captured it on the spawning grounds when it was seven years old. And that was probably when it was on its first spawning run. So, we did this to several hundred dolly varden.

Now I'll begin going over some of the results from this research. These are plots showing the age at length of the fish that we analyzed, so basically, what this is showing is that larger fish in the populations are older. Most of the fish appear to spawn for the first time at age six or seven. And most of the fish that we captured in spawning areas were on their first spawning run. So, most of the adult-sized fish in the population are six or seven years old, and the fish that are eight and older tended to be fish that appear to have spawned at least once. So, the oldest fish that we observed in this study were 11 years old. Although we know that in this region they can live as old as 13 or 14, although we didn't actually see any of those old fish in our sample.

These plots show the ages at which fish from these different spawning populations went to sea for the first time. So, each group of bars is a different spawning river, and so going to the ocean for the first time is referred to as smolting, and that's what that age of smolt refers to. So, the fish that's smolted in

their third summer dominated all spawning areas, but there were some differences between populations. Notably, the Kivalina and Wulik Rivers had a higher proportion of fish that smolt at -- in their second summer versus some of the tributaries of the Noatak, like the Kelly and the Nimiuktuk, had a higher proportion of fish that didn't leave until their fourth summer. So, smolting is often tied to fish size and condition, and it may be that juveniles grow slightly faster maybe in the Kivalina or Wulik Rivers versus the Noatak River tributaries.

So, this is kind of a complicated plot, but I'll try to break it down so that it's simple. This graph shows the number of times that the fish in our samples had gone to the oceans in their lifetime. So, these are all spawning populations. So, for example, the topmost bar, which are spawners that were captured in the Wulik. Most of the fish in that sample had gone to the ocean four times, which is that blue colored bar. However, most of the other rivers were dominated, or many of the other rivers were dominated by fish that had gone three times, the Kivalina was also dominated by fish that had gone four times. And only around 5% of the fish that we sampled had gone to the ocean more than five times, although we did have a few fish that went to the ocean seven times, and we had one that went nine times. And this plot is showing basically the same data as the previous slide, but the number of ocean migrations is plotted by the overall age of the fish. So, it's showing that older and larger fish are expected to have gone to the ocean a greater number of times, which is to be expected. Older fish in our sample were also more likely to be fish that smolted at older ages.

So, this graph is showing the proportion of fish in each spawning population that appeared to spend their first winter in the Noatak River. So, what this is showing is that very few fish from the Wulik or Kivalina Rivers appeared to use the lower main stem in Noatak as an overwintering area in their first winter, or perhaps throughout their entire lives. What's surprising is that less than half of the fish from the Noatak River tributaries appeared to use the Noatak River as their first overwintering spot. So, in other words, it appears that most of those fish spent their first winter in another river, presumably the Wulik or Kivalina, it's hard to say exactly, but it doesn't appear that they spent it in the lower Noatak. Another interesting finding is that the fish from the Kivalina

subsistence fishery, which is a mixed stock, that's the green bar here, appeared to have proportions that are closer to those of Noatak River tributary spawners. And that's probably because a considerable proportion of the fish captured in that Kivalina Village fishery are actually from the Noatak River tributaries, and they're just overwintering in the Wulik and can get captured on their way out.

So, in conclusion from these results, we know that dolly varden populations in Northwestern Alaska are composed of many different age cohorts and life history strategies. Age at first ocean migration was similar among populations, but there are some differences which may be related to things like juvenile growth. Most of the fish spawn or skipped at least one ocean migration, likely in the years that they spawned. And that's to say that most of the fish in this region appear to display -- it's a fairly unique migration pattern where they spend long periods of time in fresh water without feeding during their spawning migration. So, these fish will spend about 21 months without feeding when they make their spawning migrations, which is pretty incredible. Spawning populations are composed of many repeat spawners, so a minimum of 29% of spawning fish in our sample appeared to be repeat spawners. I think this is an important conclusion to emphasize, because it's been shown in other fish populations that older and larger spawners can contribute an outsized proportion of like -- of spawning biomass and recruitment. And so, this is something that when folks are fishing the Noatak River in the winter, oftentimes you'll catch skinny, darker colored trout. These are fish that spawned in the previous summer and as soon as the ice goes out, they're gonna go back out to the ocean and feed heavily. And so, these fish, if they survive and spawn again, are very important to the population and they're not as good eating cause their body condition is very low from having previously spawned. So, these are fish that might be worth putting back due to that. And fish also appear to move frequently between the rivers for overwintering as evidenced by the fish from the Noatak River tributaries not overwintering in the lower Noatak. And this just emphasizes how interconnected the populations in the region are, and how fish harvested from any one of the fisheries in the region could have oriented or originated from far away.

I'm not gonna spend too much time on this, cause Dr. Michael Carey did a great job on this.

But these are photos taken from one of our spawning tributaries that we had intended to collect fish from, and we were unable to. We hiked up this creek, and historically, they were spawning dolly varden here. But we did not observe any and possibly because it's compromised by the seeps, it's hard to say, but we were not able to capture any fish. So, it's a concerning trend and the status of the populations in these rivers that are heavily affected by the seeps are uncertain.

And I'll just end this with an update of the yearly fall aerial surveys for overwintering dolly varden in the Wulik. So, this past year, aerial counts were conducted in early October, and there was about 46,000 overwintering dolly varden that they counted. This year's count was a bit below average. Last year's count was the lowest on record, which was concerning at the time, but biologists think that maybe more fish may have entered the river after the count ended because fishing was reported to be fairly good in Kivalina the following spring. So, it doesn't -- it didn't appear from the fishery that there was a lack of fish in the Wulik that winter. So, there are also several sections of the Wulik that are affected by these mineral seeps that have impeded some of these aerial accounts in the past few years. So, I wanna just thank OSM for funding this project and this is a list of folks that helped us, this was a big effort, and everybody's help was very appreciated. And if we have time if anybody has any questions or comments, we'd be happy to hear them either now or in -- via these emails listed here. Thank you.

CHAIRPERSON BAKER: Thank you for that. Elmer, do you have something?

MR. ARMSTRONG: Through the Chair, Elmer Armstrong from Noorvik. I look on the map and you have Wulik, do you -- do any tributaries that branch off the Wulik, like I think there's one creek that's called Tutak.

MR. SPENCER: Yes. Thank you, Mr. Armstrong. Several of the fish that we collected in the Wulik River, the spawners that we collected in the Wulik River, were collected from the lower few miles of Tutak Creek, yeah.

MR. ARMSTRONG: Thank you.

CHAIRPERSON BAKER: Any other questions, comments? Mike.

MR. KRAMER: Yeah, I know in -- this is Councilman Kramer. I know in the past you guys had satellite data. Do you guys still have satellites on them? And if so, has any of them spent time in Russian rivers? You know, in their -- some of their tributaries. And is there any long-term concern about maybe declining salmon due to beavers? And like you said, some of these streams where they used to be trout and stuff, and there is no more trout or char or dolly varden in these tributaries that used to be there. And if so, what was the causes of them not being there? Did you guys take water samples, see if there's any type of contaminants in the area due to global warming and such?

MR. SPENCER: Thank you for the comment, Mr. Kramer. As far as the tributaries that we observed on the ground, that historically had fish that we didn't observe any in, you know, we -- at the time we weren't very familiar with this seep phenomenon, and we kind of encountered it on the ground, and we didn't take any water quality samples. But at the time, which was August of 2022, the water quality in those tributaries was considerably impeded. So, you know, it's really hard to say if there were no fish or if we just couldn't see them. Just because the clarity of the water was poor, but there was a lot of -- as Michael Carey talked about in an earlier presentation, there was a lot of precipitate on the rocks, and it just didn't look like a good place for fish to be hanging out. And then as far as the satellite tags, that was a project that was done about ten years ago, and we -- no fish in Northwestern Alaska have been tagged with satellite tags since that time. There have been on some other projects on the North Slope with similar dolly varden populations that have been satellite tags since then and in Arctic Canada as well. And yeah, in that one study, there was a fish that may have gone to Russia. It's hard to -- the authors aren't 100% sure that that is what happened, but they suspect that it is what happened but from previous tag returns back in like the 1980s there were several fish tagged in Northwestern Alaska that ended up going over to Siberia. And we just don't know how often that happens, but yeah. So, to answer your question, we don't have any satellite tags out right now.

CHAIRPERSON BAKER: Elmer.

MR. ARMSTRONG: Through the Chair, Elmer Armstrong, Noorvik. So, when you collect data from these fish, do you check for metals? Because two to three years ago, we had a big storm that came through and dumped a lot of water all over and released a lot of natural minerals. Thank you.

MR. SPENCER: Thank you, Mr. Armstrong. So, with these particular fish, we did not test for metals. However, in the Wulik River, the Alaska Department -- the Alaska Division of -- sorry, the Alaska Department of Fish and Game Habitat Division, they collect samples every spring and fall of fish in the Wulik River, and they test those fish extensively for metals. And I don't have those results on me immediately. But I'm not sure if they have had any spikes in any recent years, but they keep track of that every spring and fall and they've been doing that for quite a while now.

MR. ARMSTRONG: Thank you.

CHAIRPERSON BAKER: Final questions or comments on this topic? Tristen.

MR. PATTEE: Through the Chair, Tristen Pattee here. Brendan and Joe, I heard earlier that you -- there was a proposal made to remove a commercial fishery of the 25,000 pounds. Is that something that you need support from this group? And then was there another project that you mentioned, something about the sonar? Basically, I'm asking if there -- what letters of support, if you need them from us, what would it be?

UNIDENTIFIED: Sure, Mr. Pattee. The proposal to eliminate the commercial quota was submitted by Alex Whiting, and he may want a letter of support. That was not a Fish and Game proposal, that was submitted by him. Letters always help, and if someone can actually be at the meeting during public testimony on the first day or two to speak to this proposal, it'll be in Fairbanks. I know it's not easy for everybody to get down there, but that also really helps. But sure, a letter of support would help that proposal go a long way. The Department will be neutral on it, so we're not gonna weigh in on either way. We'll provide staff comments to the Board, but we officially don't have an opinion on that. And I'm sorry, what was your question about the sonar project? You want some more detail?

MR. PATTEE: No, I just thought you may -- I thought you mentioned there was FRMP funding, and then maybe you could use some support from us for that application.

UNIDENTIFIED: 100%, yeah, that'd be great. These things always do better when we have support from the subsistence users. I forgot to mention that Helen Cold with Division of Subsistence, I spoke to her yesterday, and she and I are interested in also having kind of a creel survey of the winter fishery. We did this about 20 years ago where we would have a local hire, and a Fish and Game person just go out on the ice and talk to people and see what they're catching and take some measurements and ask them how they feel that the fishery is going. And that would -- could be the first step for us of getting handle on the harvest. So, she could probably use a letter as well, but I can – yeah, I'll get back to you when these proposals get written, and you can take a look at them and see if you still support them, but I'd really appreciate it. Yes, thank you.

MR. PATTEE: Through the Chair. Okay, so there's three. So, would you mind just telling me -- just so I can write these down before I make the motion, so I can write them down so I can explain what they are, just a quick title of what they are.

UNIDENTIFIED: Sure, the first one is the Board of Fisheries proposal, written by Alex Whiting, to eliminate the commercial quota. So, that letter could be addressed to the Board of Fisheries. And I could send you the link to their website with the information.

MR. PATTEE: Okay, Board of Fish proposal to eliminate the quota. Okay, got that one. What's -- what was the second?

UNIDENTIFIED: The next one would be to the OSM, the FRMP program coordinator. I guess that would be Dr. Voorhees there, supporting our proposal to use a sonar for three years to count sheefish and chum salmon going by -- essentially by Kobuk Village, they all -- the sheefish spawn above that, but we count chums as well. So, yeah, supporting a three-year sonar project to essentially count sheefish.

MR. PATTEE: Okay, and the last?

UNIDENTIFIED: The third one would be kind of a harvest survey of the winter fishery for sheefish and Kotzebue Sound. And I'm not positive Helen is gonna submit that proposal, but we talked about it yesterday and she sounded very interested, and I hope she does. So, that would be harvest monitoring of the winter sheefish subsistence harvest in Hotham Inlet.

MR. PATTEE: Through the Chair, Tristen. Thank you.

UNIDENTIFIED: Thank you, I appreciate it.

MR. PATTEE: Okay, for the first motion. I propose to write a letter of support for -- to the Board of -- or I put BOF proposal to eliminate the quota.

CHAIRPERSON BAKER: Motion made by Tristen. Is there a second?

MR. RAMOTH: I'll second that motion.

CHAIRPERSON BAKER: Seconded by Clyde. Discussion, justification?

MR. PATTEE: Through the Chair, Tristen Pattee. Justification is to eliminate the quota, just in case the possibility -- to not take away any opportunities for these fisheries to extend the -- extend past that quota.

CHAIRPERSON BAKER: To clarify, that's a commercial quota, correct?

MR. PATTEE: Yes.

CHAIRPERSON BAKER: Further discussion. OSM staff, is there enough on the record? All those in favor of this letter drafting, please signify by saying aye.

IN UNISON: Aye.

CHAIRPERSON BAKER: Those opposed, same sign.

(No response)

Hearing no opposition, will draft that letter. Tristen.

MR. PATTEE: Through the Chair Tristen Pattee. I move to propose a -- to write a letter to the OSM to support the -- support their project to -- for the FRMP, to -- for the sonar for the three years near the Kobuk, Village of Kobuk.

CHAIRPERSON BAKER: Motion made by Tristen. Is there a second?

MR. RAMOTH: I'll second.

CHAIRPERSON BAKER: Seconded by Clyde. Discussion for justification.

MR. PATTEE: Through the Chair, Tristen. Justification would be for knowledge for the local source.

CHAIRPERSON BAKER: And we can also note that in earlier discussions, we have supported more studies, more research use of sonar on and on. Staff, is there enough in the transcript? All those in favor for this proposal, for this letter, please signify by saying aye.

IN UNISON: Aye.

CHAIRPERSON BAKER: Those opposed, same sign.

(No response)

Hearing no opposition. We will draft that one. For the third one, would it be appropriate to do a letter since it's not been -- nothing's been submitted yet. I don't know if that might be something we could bring up in the fall meeting.

MR. PATTEE: Yeah, through the Chair. I think that would be more appropriate once they have something really going. Once she decides that she's gonna do the project.

CHAIRPERSON BAKER: Thank you for that, Tristen. Joe and Brendan, did you have any final comments?

UNIDENTIFIED: I do not. Thank you, Chair.

UNIDENTIFIED: Through the Chair. Maybe just a quick one on the satellite telemetry project. That was a great project. One thing that keeps us from doing that more often is those tags are -- I think they're $5,000 now, and it's several thousand dollars to evaluate the data from each tag. But we did learn a lot. And like I said, I wish we could do more of that stuff, but it gets really expensive. Thank you.

CHAIRPERSON BAKER: All right. Well, thank you for that. We have covered everything for the FRMP portion. We do have a member of the public who would like to address the Council. Brent.

DR. VICKERS: Sorry, this is Brent Vickers, OSM. And this might just be for general knowledge. So, for the FRMP and letters of support, when the proposals are gonna be submitted soon, and with those proposals, we start the rating -- start rating them when they -- get a committee together and rating them, and they should have the letters of support with them during that rating process. So, writing it in your fall meeting unfortunately, is too late for letters of support to really get in that evaluation. I'm not saying you should write that letter that you were talking about now. I just want you to like, kinda for future purposes, to know that it is kinda bad timing cause you would like to see those things, but because of how the Council meetings scheduling works and the FRMP, this would be the time for those, so. But we do have good letter, you guys have it written. But I just want to let you know. Thank you.

CHAIRPERSON BAKER: Thank you for that Brent. Good, from the Council on that one? So, with that, Mr. Ray, if you'd like to come up to the table and put your name on record, we do have a member of the public who would like to address the Council on a non-agenda item. The topic being the three-mile corridor regarding fisheries, which I know you and I have spoken about personally previously. Give you five minutes on the clock. But if you could state your name for the -- press the button, state your name for the record, and then we can go from there.

MR. RAY: Yeah, my name is John Ray. Been a resident here for 45 years, been commercial fishing since '83. And now I'm, you know, trying to get a commercial crabbery [sic] going here locally, and you know, it's up and down the coast. And it seems like every time Kotzebue people commercially, you know, in the fishing industry, every time we try and do something, there's something that's blocking our path. You know, we didn't get on the CDC program, we didn't -- we're just always looked at like we're too small or something like that. I don't know how to explain it. And I'm shooting from the hip here because I didn't plan on coming down here and speak 'til I heard this meeting on the radio. So, what I came down here for was to see what we could do to get the three-mile corridor changed. That's imposed on us only in the State, no other place in the State is this imposed on. My understanding, it runs from Barrow all the way down to Wales, if I'm not mistaken. Why that is, I've got no idea, I'm assuming maybe because of the oil industry they didn't want anything commercial offshore. I don't know, but that's what I'm assuming.

So, now getting into commercial crabbing, I'd like to see that changed so that, you know, in order for me to commercially crab, I was told years ago when we did the crab study up here, everything had to be two miles offshore and then out, and now it's a three-mile corridor. We can't go beyond three miles. So, if I've only got one mile to commercial crabbing, doesn't make sense. And I don't know if it means to shore nowadays since they changed that corridor to the three-mile limit. But at any rate, I'd like to see that changed and get some clarification on it.

Also, on our commercial crabbing. Like, Nome has got I think it's around 600,000-pound quota. We immediately get a 10,000 pound quota placed on us. I've got no wonder, you know and all -- I called Kevin Clark down in Nome. And he says, well, we need numbers in order to establish a quota. And I said, well, you just put a quota on us at 10,000 pounds, I said, why is -- why are we only limited to 10,000 pounds? I can probably fill a 10,000-pound quota in a few weeks, myself. In the amount of time that I go out there. So, and he says, well, we need the numbers for data, and I said, well, how are you gonna get numbers for data if you throw 10,000 pounds out there? Okay. So, this is what we're up against. We're up against every arrow coming at us, you know. And I don't understand why

Kotzebue Sound gets treated this way. And I'm just gonna say, as far as our commercial season goes and our -- on salmon and I'm seeing as I'm sitting here -- as far as our salmon goes, they put -- they restricted us two years ago to -- and this was Nome biologist down there, restricted us to the amount of time we could fish, the amount of fish we could catch. And I realized everything goes out by aircraft. But they said that we didn't get salmon, I know we didn't last year, you know, nobody even fished, really. But the year before we were -- we had this low quota -- or not a quota, but we had a low incoming of salmon also. That's not true. The amount of hours we fished, I kept track of how many fish I caught per hour per day, and I caught just as much fish as I did the two seasons before, which was a lot of fish. So, it was -- the data that they had was bogus as far as that goes. And I keep track of that stuff real close so, I know. And anyway, that's about all I got to say, unless you got question for me.

CHAIRPERSON BAKER: Thank you, John, does anybody have any questions? I will say that this -- the three-mile issue and the quotas that we're discussing, these are mostly State issues. Us being an Advisory Council to the Federal Subsistence Board, there's not a lot we can do. We can send a letter to the State AC that met a couple weeks ago. That's kind of more their thing of dealing with the State waters and the State, and the folks out of Nome and the Fish -- Department of Fish and Game. But is there any discussion? Tristen.

MR. PATTEE: Through the Chair, Tristen Pattee. So, what I'm gathering here is you're being -- the hurdles are the three-mile corridor within three miles from Kotzebue inwards, which is from what I saw, it was pretty shallow. I don't see how you can really crab very much, and within that three miles, those hurdles are being put on you for the State. But yeah, I mean, I still see that a letter from this group, you know, to whoever's creating these barriers for someone that's trying to be an entrepreneur, make a living and within his home. And, I mean, I think it's very important that we could support him in some way, even if it's just a minimal impact, at least it's an impact, you know. So, I really feel that we can send something to help out this potential industry here.

CHAIRPERSON BAKER: Elmer.

MR. ARMSTRONG: You know -- through the Chair, Elmer Armstrong, Noorvik. I know when I talked to one of the locals, you know why wasn't Kotzebue involved with this CDQ? And. You know, I brought up earlier talking about the moratorium line set between the Bering Sea and the Chukchi. But, you know, my question, why was -- why wasn't Kotzebue involved when they were making CDQ? Thank you.

CHAIRPERSON BAKER: Questions, discussion? Tristen.

MR. PATTEE: Through the Chair, Tristen Pattee. So, who put these barriers on? Do you know? The -- someone mentioned the AC.

CHAIRPERSON BAKER: It wouldn't be the AC necessarily, but basically State Fish and Game. Is that correct, OSM staff? Essentially, it's the State side, it's not a federal thing. So, you would address if we were to send the letter would be to the Commissioner of Fish and Game, the Board of Fish, Kotzebue AC.

(Pause)

MR. PATTEE: Through the Chair. Yeah. Can you just – when I make the motion, can we use the on record statement I just made for -- to write this letter?

CHAIRPERSON BAKER: Go for it.

MR. PATTEE: Okay. Tristen Pattee. I moved to propose a letter to the entities that you mentioned before to remove the three mile corridor in order for local people within the -- I think he mentioned from Wales to Utqiagvik, to be have that removed for the potential crab fishermen.

CHAIRPERSON BAKER: Elmer.

MR. AMRSTRONG: Just for discussion. I'm looking at the CDQ site and it shows these different areas have like Norton Sound Economic Development Corporation, they have an area. And also there's a Yukon Delta Fisheries Development Association Coastal village Region Fund. And also, the Bering -- Central Bering Sea Fishermen's Association and Aleutian Pribilof Island Community Development Association in the boundaries are pretty big.

CHAIRPERSON BAKER: Verne, did you want to add something?

MR. CLEVELAND: I second the motion.

CHAIRPERSON BAKER: The motion made by Tristen for a letter to the entities stated previously, seconded by Verne. Any further discussion? Mike.

MR. KRAMER: Yeah, I know that at our advisory meeting that we had within the last two weeks, my brother is the Chair on the Kotzebue Sound Fish and Game Advisory Council. We made decision on the sheefish. But I think it would be wise to relook over some of the boundaries, like John is talking about for crabbing. I don't know what the current -- I -- I've been trying to figure it out, what's the current boundaries for commercial fishing within Kotzebue Sound. I believe it's (In Native). And then what about the island?

MR. RAY: I was told that the -- we don't have a northern boundary. It goes as far as would be possible for us to sell fish. So, if there was a buyer in Point Hope, we could actually fish in Point Hope. That's what I was told by Fish and Game, Kevin Clark down and Nome.

CHAIRPERSON BAKER: For the record, that was John Ray. Did you have more, Mike?

(No response)

Staff, is that good for a letter? Got a thumbs up. All those in favor of drafting this letter, please signify by saying aye

IN UNISON: Aye.

CHAIRPERSON BAKER: And those opposed, aame sign.

UNIDENTIFIED: Aye.

CHAIRPERSON BAKER: So, was one opposition and five in support, that would pass. So, we will get that drafted. Thank you, John, for coming in today. I know it was impromptu, but hopefully this moves things along and helps our Marshall folks here in Kotzebue in the area. Appreciate your time. We're going

to move on to our next item. Dr. Voorhees, you covered the Partners for Fisheries monitoring program already. So, next we have Brent Vickers with the Office of Subsistence Management general update.

DR. VICKERS: All right, Mister Chair, members of the Council, once again, this is Brent Vickers from the Office of Subsistence Management. And on behalf of OSM, I want to thank you for your service. Exceptional work that you are doing here on behalf of your communities and user groups. We value your expertise and your volunteering, your contributions of your knowledge, experience, and time to these regulatory processes, which are very confusing, and we really appreciate you guys working through them. So, as many of you know, last summer, Congress administratively moved OSM from the US Fish and Wildlife Service directly to the Office of Secretary Policy, Management and Budget. This move was one of many efforts that the Department of Interior has made to strengthen the Federal Subsistence Management Program and ensure that federally qualified subsistence users and Alaska Native peoples have an opportunity for meaningful engagement in our public process and implementation of federal subsistence priority.

This January, President Trump returned to the White House and with him, a new team of political appointees. Doug Burgum was sworn in as Secretary of Interior. Recently, Tyler Hassan was appointed acting senior advisor to the Secretary, exercising the delegated authority of the Assistant Secretary for the Office of Policy, Management and Budget, which again, is the office we're now in. Meanwhile, it's been business as usual as we continue to work with many of the same people within the Office of Secretary in Washington, D.C., who hope -- helped us with our transition as well as the new political appointees. In February, we welcomed new public Board Members Raymond Oney of Alakanuk, Benjamin Payenna of Nome and Frank Woods of Dillingham, and completed another successful Board meeting later that month or in early February. We hope to have an updated federal regulations for subsistence fishing published in the final rule soon. The proposed rule for the 2026 Wildlife regulatory cycle, published on February 7th, and the Board will be accepting proposals through April 4th.

Staff updates. First, in November 2024, Justin Kohler was promoted from fisheries biologist to regulation specialist. Justin seamlessly transitioned to

this very complicated position and has been working diligently to push forward the new rules. Then in December, OSM officially welcomed our new director, Ciisquq Crystal Leonetti. She has been -- had been acting in that role for over six months until she was formally hired. Previously, Ciisquq was Alaskan Native Affairs Specialist at U.S. Fish and Wildlife Service. Among her regular OSM director responsibilities, she continues to lead OSM through its administrative move and has done a wonderful job. Starting in February, Chris McKee came to OSM from BLM to act as Deputy Director for four months. Chris is subsistence coordinator at BLM and a member of the Interagency Staff Committee or ISC. Chris previously worked at OSM as Wildlife Division Supervisor and before that a wildlife biologist until 2020. And then last week, Scott Ayers was formally appointed the Deputy Director of OSM position. Scott started at OSM as a Fisheries Biologist in 2016 and has been our Fisheries Division Supervisor since 2021. He stepped up to help OSM by acting as either Deputy Director or the Director through much of 2024. He demonstrated some really excellent leadership while acting in those positions, and we're really excited to have him in this permanent role. See -- so as we've discussed here, it's been brought up, our OSM Fisheries Biologist Karen Hyer recently retired. So, she could dedicate more of her time to finding fish in the deep seas. Karen was a specialist in this Northwest Arctic region for many years, and was also heavily involved in the Partners for Fisheries Monitoring Program. We're going to really miss her, her dedication and fun sense of humor, and especially the service training puppies she would bring to the office. But I want to assure you, have no fears, because we have Kevin Foley, who is an excellent biologist who's worked throughout the Alaska region for many years, stepping in to start filling in Karen shoes. We also have Doctor Voorhees, anthropologist, who's worked in this region for many years. Also, of course, we want to get into Wildlife, Tom Plank has been doing great, so don't worry. Even though we've lost Karen as great fisheries biologist, we've got strength in numbers behind her.

Let's see. OSM State Liaison George Pappas moved to a new job with Alaska State ADF&G. He's now the Firector of the Division of Subsistence. George Was great leader at OSM, while we miss his insight and humor at our office meetings, we know will be excellent in his new role and look forward to working with him in that capacity. And lastly, we're heartbroken to share

that our longtime solicitor, Ken Lord, unexpectedly passed away a few weeks ago. Although he worked mostly behind the scenes, Ken was truly dedicated to rural subsistence users in Alaska and upholding ANILCA Title VIII. He was incredibly knowledgeable about ANILCA, always took the time to calmly, patiently explain it to the rest of us. That -- our thoughts will always be with him and his family.

So, moving into a real ID, we've been mentioning this for years, but the time has come. Council members and others are -- about the requirements to change for us travelers who must have a Real ID compliant to Board domestic flights, access certain federal subsistence facilities. Beginning May 7th, 2025, every air traveler will need to present Real ID compliant identification to fly within the US. That includes small bush carrier -- commercial carriers. For our program, you will need to have your Real ID in time to travel to your fall 2025 Council meeting. You can find out more about Real ID and requirements on the State of Alaska Motor Vehicles website.

Correspondence. Councils received a handful of responses earlier this year from Secretaries based on issues raised during individual Council meetings and an All Council meeting this past winter or last winter. OSM has also integrated a correspondence review standing agenda item in the Federal Subsistence Boards meetings to keep them appraised of all ongoing and completed correspondence to and from the Councils. We're aware of concerns that have been raised on timely responses and are continuing to work on ways to help expedite things moving forward. The upcoming meeting dates. The Federal Subsistence Board will hold a summer work session on January 23rd and 24th of this year to discuss Annual Report replies, Council correspondence and Council and non-voting young leader nominations. Tribal and ANSCA consultations on wildlife regulatory proposals and closure reviews will take place on August 23rd-24th, 2025. We will have -- the times for these consultations will still -- are still to be determined, but August 23rd-24th. For next year, we're looking at the weeks of January 28th and 29th, or the weeks of February 4th and 5th for the Board's FRMP work session. We're also looking at the weeks of April 10th or April 13th through 7 -- April 6th through 10th or April 13th through 17th for the next wildlife regulatory meetings.

Let's say, litigation updates. There were some updates provided during the fall 2024 Council meeting cycle. Since then, Kake Emergency Hunt, which is a ADF&G versus the Federal Subsistence Board briefing. The Kake -- the briefing has been completed before the 9th Circuit Court of Appeals and the three judge appellate panel heard the oral argument on February 7th. We expect a decision sometime this summer. And the Kuskokwim matter, the District Court found in favor of the US on all claims, and enjoined the State from taking any further actions and violating Title VII on the Kuskokwim River. The State has appealed and briefing before the Court of Appeals is now complete, oral argument is scheduled for April 11th. And that's my come -- report. Let me know if there's any questions.

CHAIRPERSON BAKER: Yes, Clyde.

MR. RAMOTH: Great report, a lot of energy. So, the tribal consultation, you mentioned some dates, and can you elaborate on that a little bit please?

DR. VICKERS: Yes.

MR. RAMOTH: So, for the record, Clyde Ramothm Selawik.

DR. VICKERS: Thank you. Chair -- member Clyde. This is Brent Vickers, OSM again. So, what those tribal consultations are for -- are -- they're -- there for basically all standing wildlife proposals. We will have -- invite tribes and ANSCA corporations for basically an open period -- it's -- we have it sectioned out like a two hour time, depending on the region. And the representatives from those tribes or the corporations can come on any proposal that's out there. Anytime a tribe or corporation wants to make a special consultation, all they have to do is Council -- contact us. Thank you. Sorry. Contact us. Particularly our Native Liaison, Orville Lind, or you can just contact anyone to if -- especially if there's a specific proposal that a tribe or corporation wants to discuss any time of the year that's open. But we set these dates, which are August 23rd and 24th, for a representative to put on their calendar, get on the phone and make comments on any of the proposals that are out there.

MR. RAMOTH: Okay, thank you.

DR. VICKERS: Thank you.

CHAIRPERSON BAKER: Other questions, comments for Brent on the report at this time?

(No response)

Hearing none. Thank you, Brent. We will move on to other business. The Council correspondence update, Lisa.

MS. HUTCHINSON: Hello again. Mr. Chair, members of the Council again, this is Lisa Hutchinson, Council Coordinator, for the record. So, starting on page 137 of your meeting books that has a caribou on front. I've included the current Council correspondence that has been received in response to the letters the Council has sent after the joint All Council meeting last March in Anchorage. The letter on page 137 is from the Commissioner of Fish and Game, Doug Vincent-Lang, in response to the Quad Council, which included your, Northwest Arctic, the North Slope, the Western Interior, and the Seward Peninsula Councils. It was regarding your concerns about the Western Arctic Caribou Herd decline, and that was his -- the Commissioner's response to your letter. Then there's two response letters on page 141 and 143 from the principal Deputy Assistant Secretary in behalf of the Secretary of Interior, Deb Haaland – last -- the prior Secretary of Interior, Deb Haaland, in response to fishery management concerns across the administrative boundaries and in response to the All Council request for the monetary compensation while attending Council meetings. The DOI, Department of Interior provided responses to the letters received from the Council regarding fisheries management concerns and the request for Members compensation and the request for adequate response from the Secretaries for letters elevated. So, anyway, those letters are in there if you have any questions, but we probably, for lack of time, won't go into it. Also, in addition, on tab 11, in the White Book supplemental book is the letter from your Councill to Mr. Elmer Armstrong informing him that he was appointed by your Council to the Kobuk Valley Subsistence Resource Commission. It was that that happened last fall. So, anyway, congratulations Elmer to that. And that's the end of the correspondence update. Thank you. And I will have quite a few for next meeting.

CHAIRPERSON BAKER: Thank you for that, Lisa. We will move to Katya Wessels with the Young Leader Seat update.

MR. WESSELS: Thank you, Mr. Chair. Good afternoon, members of the Council. I am just sorry that I'm not there with you in Kotzebue but, thank you so much for a very productive meeting. My update will be very short. For quite a few years, many Councils, including yours, were considering that the membership of the Council are becoming very kind of more on the older side and wanting to involve more younger people and pass your knowledge and experience with Federal Subsistence Management Program and with dual management system to the younger generations. So, for several years several Councils been [sic] asking to add a young leader Member seat to the Councils, and then finally, after the request was sent to the Secretary of the Interior in 2023, that request was approved and the Council Charters that were issued in 2023 got the language included that each of the ten Councils will get one non-voting young leader member seat. And we advertised for that seat at the same time as we advertised for the regular Council seats from early January to February 16th. We received several letters of interest across Alaska from various regions. In fact, you know, it was eight letters of interest that were received. Unfortunately, not all regions received the letters of interest for these non-voting young leaders seat. Your region have not received a letter of interest from any young leaders in your region. So, I would encourage the Council members that when we advertise for that seat again, hopefully next year, that you spread the word in your communities and encouraging [sic] any younger people and young leaders in the age needs to be between 18 and 25 at the time of appointment to apply for that seat. And this -- they do not need to fill any form. They just need to write a letter of interest and answer a couple of questions. One of them, why subsistence is important to you? And the other one. Why do you want to serve on the Federal Subsistence Regional Advisory Council? We are now in the process of creating rating criteria for the applicants that applied this year, and then after the interviews are conducted, the information will be sent to the Federal Subsistence Board for their recommendations, and then subsequently, it will be sent together with the regular packet for the Council appointments to the Secretary of the Interior in concurrence with Secretary of Agriculture. And hopefully by December of this year, we'll have some of the appointments to this non-voting young leader seats, and we can update you during the winter of 2026 who got appointed. And hopefully we'll see somebody from your region applying for the seat in

the future. So, that concludes my short update on that topic, and I'm happy to answer any questions if there is any.

CHAIRPERSON BAKER: Thank you, Katya. Any questions?

(No response)

Doesn't appear that we have any. So, thank you for that update. The young leaders.....

MS. WESSELS: Welcome.

CHAIRPERSON BAKER: We will move right into item 16 which is Council member closing comments. Go ahead and start with Clyde. Do you have any closing comments?

MR. RAMOTH: Thank you, Mr. Chair. Good meeting. I think it's been very informative. I've learned a lot about proposals and hearing the agencies report and written reports, really helpful when we get these, like, twice a year. The muskox is probably my highlight for this Selawik resident, but with the declining caribou, I know I've had outside discussions about it's probably going to be a statewide issue too to talk about caribou in the future or tuttu and maybe even NANA, I heard might even put on another tutu conference here. But overall safe travels. Good meetings. Very meaningful, I got a lot of things to share at home. Thank you.

CHAIRPERSON BAKER: Thank you, Clyde. Elmer, any closing comments?

MR. ARMSTRONG: Thank you, Mr. Chair. Elmer Armstrong, Noorvik. Yes, this was a good meeting. A lot of information to digest. And I'm glad that we were able to put proposals in with letters of support. And I look forward to our next meeting. Thank you.

CHAIRPERSON BAKER: Thank you, Elmer. Mi4ke Kramer.

MR. KRAMER: Yeah, that was a very good meeting. A lot of serious points were pointed out. And I -- we did take care of a lot of issues. That will be -- will be dealing with in the future. You know, it's with the way our government is going right now that

subsistence is very priority, food security is very priority. You know, we're at the point where mining and money means more than subsistence resources. With the initiative of all of us working together, we are united, but when we don't work together, we are apart, and we are set for failure. So, we need to try and work together to try and successfully make it easier on subsistence users throughout the region. Please turn in your you know, your harvest tickets for caribou. Please follow the law, the regulations set forth. Please get your fishing or hunting licenses. You know, if you get into trouble and you don't have any of these items, it makes us very hard to defend you, or to bring forth issues that you may have.

The harvesting of cows is illegal. Especially at this point in time, you know, when they are beyond embryos. We've got a lot of things that are going to be coming up within the next 5 to 10 years, and it's going to be very critical. I got a lot of attaboys on Facebook Messenger saying that you hit all the points, you asked all the good questions, you came up with good questions, you pressed for answers, you pushed for questions, and so on. But I think that all of us working together will be able to accomplish a lot. Especially when it comes down to a lot of the studies for subsistence and helping in with the consumer -- commercial fisheries, to try and understand why and to try and help to see if we can understand why and make sure that we get good runs of salmon coming in for subsistence users. Especially for return and future stocks. That's all I have. Thank you.

CHAIRPERSON BAKER: Thank you, Mike. Tristen.

MR. PATTEE: Through the Chair Tristen Pattee. I want some attaboys on Facebook. I'd like to just take a moment to reflect on the past few days and express my appreciation for the outstanding presentations we've had the privilege of experiencing. The time, energy, and dedication invested both mentally and physically in doing the work to create these presentations is truly valued. Our subsistence way of life is central to who we are and any insights that help our people make informed decisions and adapt when necessary are crucial to ensuring that we not only continue to thrive but, also preserve and pass on this important tradition. I'm truly proud to be part of this work and remain deeply committed to serving the people

in my region. I also want to encourage all the young subsistence users to reach out to the elders in your communities. Listen to their stories, learn from their experiences, and do your best to pass that knowledge along. Just in the short time we've had here, I've learned so much from the elders that surround me, and I can only imagine how much more wisdom is out there waiting to be shared. Thank you to all the presenters, the staff and of course the Council for being part of this vital organization. I look forward to seeing all the hard work you continue to put in for our people, and how the fruits of that labor will enrich and benefit our lives for generations to come. Taiku.

CHAIRPERSON BAKER: Thank you, Tristen. Verne.

MR. CLEVELAND: Thank you like said, thank all the agencies for coming in, helping us out, letting us know what's going on. And with that mining, what these guys brought up. That activity up in Bornite, is getting more and more activity. Is anybody doing studies or anything around Bornite on the rivers, the creeks or anything? So, when the mine comes in you know, we are already, not say, oh, we didn't know that, you know, but, you know, we have to be prepared for that because that Bornite opens up and we're not prepared, you know, it's going to hit us hard, especially on subsistence. So, let's be aware that it's going to open up, I guarantee you. I've been hearing you since I was five years old. That's 65 years ago. I grew up with it. You've been talking about it. Talking about it for years. She's gonna open up. Our fishing is gonna be gone, our hunting. So, with you folks. We should try and get some -- something going to study what's going on up there. We're already a lot of activity, choppers all day long. Because everything Bornite for -- just to check it out. They probably kicked me out at last -- last time, because the caribou were getting too close to Bornite. And I told them, hey, you guys gotta quit playing around because they were right there. But I was sent home the next couple of days due to, I don't know what. Maybe what I commented, but we have to start watching Bornite as is. That's where the fish go spawn up the river. We have been having -- making it because it's getting warmer and warmer, but we should at least try and look at it in some way. If the road comes in, it will be in a whole different world for sure. I know it's going to happen because I've been listening to it for many moons, I tell you that. And thank Lisa, for bugging me to come down

and early, you know. No, but my help and having been very, very great, but thank you all for being here and giving us all your reports. And thank you, Mr. Chair.

CHAIRPERSON BAKER: Thank you, Verne. For the record, Thomas Baker, Chair of Northwest Arctic Subsistence Regional Advisory Council. I'd just like to thank all the Council members. I know we have several who couldn't be here today. Thanks, everybody for the time that we all volunteered to come down and come together and talk about all of the different issues. Thank you to all the staff and the different folks that come in to make these meetings happen. Over the last month, there's been potential government shutdowns. There's been people let go, people brought back. So, thank you to all the federal folks who, no matter what, Bob and weave, to come together and put these things on so that we can do the work of working towards better subsistence policies. I'll keep it short. With that, we are on our last item, which is adjournment. Do we have a motion to adjourn?

MR. RAMOTH: I so move.

CHAIRPERSON BAKER: Motion to adjourn.....

(Simultaneous speech)

MR. RAMTH: Clyde.

CHAIRPERSON BAKER: made by Clyde. Is there a second?

MR. CLEVELAND: Second.

CHAORPERON BAKER: Seconded by Verne. All those in favor, please signify by saying aye.

IN UNISON: Aye.

MR. RAMOTH: I'd also like to thank KOTZ Radio for hearing us on the radio. Taiku to all you over there and give us our hard work. Thank you.

CHAIRPERSON BAKER: Thank you for that, Mike. And those opposed, same sign.

(No response)

Hearing none. We will adjourn at 4:38 p.m.. Thank you everyone. We will see you in September.

(Off record)

(END OF PROCEEDINGS)

C E R T I F I C A T E

I, Rafael Morel, for Lighthouse Integrated Services Corp, do hereby certify:

THAT the foregoing pages numbered 1 through 138 contain a full, true and correct Transcript of the NORTHWEST ARTIC SUBSISTENCE REGIONAL ADVISORY COUNCIL MEETING, VOLUME II recorded on the 28th day of March;

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

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

DATED at Isabela, Puerto Rico this 6th day of May 2025.

_____
Rafael Morel
Chief Project Manager