YUKON KUSKOKWIM DELTA SUBSISTENCE
REGIONAL ADVISORY COUNCIL

PUBLIC MEETING

VOLUME I

LONG HOUSE HOTEL CONFERENCE ROOM
Bethel, Alaska
March 17, 2026

COUNCIL MEMBERS PRESENT:
Jacqueline Cleveland, Chair
Henry Parks
John Andrew
Francis Prince, Jr.
Alissa Nadine Rogers
Phillip Peter, Sr.
Wassily Alexie
Myron Naneng
Tiffany Agayar
Frederick Bean

Regional Council Coordinator, Brooke McDavid

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P R O C E E D I N G S

(Bethel, Alaska - 3/17/2026)

(On record)

CHAIRPERSON CLEVELAND: Good morning. Welcome to the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council meeting at the Longhouse Hotel on March 17th. I'm Jackie Cleveland, and first we wanted to ask Henry Parks for invocation. (In Native).

MR. PARKS: Thank you, Madam Chair. Pray with me silently. I'm going to pray. In the name of the Father and of the Son and of the Holy Spirit, Amen. Holy God, Holy Mighty, Holy Immortal, have mercy upon us. First of all, I want to thank you, Lord God Almighty, that you are with us since this morning to this hour. And Lord, we're not perfect. We all make mistakes. If we had committed any sin, please have mercy upon us and forgive our sins away. In Jesus name I ask you, pray to you and, Lord, we pray for our loved ones back home. Be with them and comfort them. And I pray for the conflict that is going on with Iraq -- Iran and the U.S. and other countries. Be with them, have mercy upon them, and let this conflict end before it gets worse. And Lord, since it is your will right now, we are about to have this important subsistence meeting. Be with us, guide us, and be with our Chair to form and guide her and Lord be with us while we are here until we get back home again with our loved ones. In Jesus name I pray. Amen.

CHAIRPERSON CLEVELAND: Quyana, Henry. (In Native). Did you want to add anything? John Andrew.

MR. ANDREW: Yeah. My name is John Andrew from Kwethluk. I like to have a moment of silence for the late James Charles, but first I need to tell a short story about him. James Charles was one of our first original Regional Advisory Council members over here. Started back, way back in 1992 when they first formed the RAC for this region, and I was a Chair at the time. I was their Chairman. James Charles was -- along with Charlie Brown, were the original first two people that signed up for this RAC Council, and both of them served 25 years each. A few years ago, they resigned -- not resigned, retired after serving 25 years. James Charles used to be a hunter, fisherman, trapper, and a pilot. In the early years, when we used to have commercial fish

over here, he used to fish his own salmon then fly them over to Anchorage to sell them off over there for higher prices. He was also a Bristol Bay fisherman. He was all around. He was bilingual. He was bilingual, and most of the time, better than 80% of the time was speaking Yup'ik, and he needed an interpreter like most of us that are older in this Council. He was a very, very -- it's very hard to describe. He was all around. He was well liked by everybody down river, up north, down south, in the area, even upriver. Even though we used to have upriver and downriver issues, he used to try to make them work together. And half the time if you asked me or one of the interpreters to interpret for them, even though he was fully bilingual, he was more comfortable speaking his own culture, central culture, Yup'ik language. For now, I'd like to ask for a moment of silence in his memory. (In Native).

(Moment of Silence)

Quyana.

CHAIRPERSON CLEVELAND: Quyana, Henry and John. So we will call the meeting to order at 9:24 am. And next, we'll do a Roll Call with Brooke.

MS. MCDAVID: Thank you, Madam Chair. This is Brooke McDavid for the record. We'll start with Henry Parks.

MR. PARKS: Present.

MS. MCDAVID: Norma Evan is absent and excused. Norma wanted me to let you all know that she's undergoing treatment for breast cancer at the moment, so if you want to keep her in your thoughts and prayers. Quyana. John Andrew.

MR. ANDREW: Here.

MS. MCDAVID: Walter Morgan is absent and excused. Jacqueline Cleveland.

CHAIRPERSON CLEVELAND: Here.

MS. MCDAVID: Francis Prince, Jr.

MR. PRINCE: Here.

MS. MCDAVID: Alissa Nadine Rogers.

MS. ROGER: Present.

MS. MCDAVID: Thanks, Alissa. Phillip Peter, Sr.

MR. PETER: Here.

MS. MCDAVID: Wassily Alexie.

MR. ALEXIE: Here.

MS. MCDAVID: Myron Naneng. And, Myron, we had to mute your line, so you might have to press star-six to unmute.

MR. NANENG: Hello. I'm here.

MS. MCDAVID: Thank you, Myron. Tiffany Agayar.

MS. AGAYAR: Here. Frederick Beans.

MR. BEANS: Present.

MS. MCDAVID: Madam Chair, with 10 of 12 Council members present, we have quorum.

CHAIRPERSON CLEVELAND: Thank you, Brooke. And next, moving down to number 4, Election of Officers again with Brooke.

MS. MCDAVID: Thank you, Madam Chair. Again, for the record, this is Brooke McDavid, Council Coordinator. We're going to start this morning with our election of officers for the year. So every winter meeting each year we do election of officers. And so I will do -- help run the election for the Chair, and then when the Chair is elected, they will run the election for Vice Chair and Secretary. So anyone can nominate someone, you don't have to second, and no motion is needed to nominate someone. If you are nominated, you can decline the nomination if you do not accept the nomination. That's okay. I do want to note that the Chair position and the Vice Chair position come with special extra duties on the Council. The Chair is responsible for attending the Federal Subsistence Board meetings. Also helping to finalize correspondence and other reports. So just keep that in mind as we go through the nominations, if that is something -- if you are nominated, if you feel you have the capacity and the

time to take on that role, and the Vice Chair fills in for the Chair when they are not available. So we'll start this morning and we -- I will open the floor for nominations for Council Chair.

MR. ALEXIE: Madam Chair, this Wassily, before we do the nominations can I ask that do you give the names of whose terms are up this year, so that we can know.

MS. MCDAVID: Oh, sure, Wass. Well, that won't really affect the officers because this position will just go through the end of this year when the terms expire, but we'll be going through discussion of the membership and who needs to reapply in a little bit, but just so you know, Chair Cleveland, Francis Prince, Alissa, Phillip and Wassily will be needing to reapply this year, if you want to continue your service on the Council.

MR. ALEXIE: Thank you.

MS. MCDAVID: No problem. This is Brooke again. I will just repeat that the floor is open for nominations for Council Chair.

MR. PARKS: Brooke. Madam Chair, I nominate Jackie Cleveland.

MR. ALEXIE: This is Wassily. I second Henry's motion.

MS. MCDAVID: Thank you. There's one nomination for Jackie Cleveland. Do I hear any others?

(No response)

Okay. Hearing none.

(Distortion)

Oh, go ahead, Myron.

(No response)

If there are no other nominations. It sounded like Myron might.....

MR. NANENG: Madam Chair.

MS. MCDAVID: Go ahead, Myron.

MR. NANENG: I just want -- I want to ask for unanimous consent from the Board and close the nominations.

MS. MCDAVID: All right. I'm going to ask for unanimous consent for Chair Cleveland. Anyone in opposition?

(No response)

Hearing none. Congratulations to Jackie Cleveland as the RAC Chair for another term. And, Madam Chair, I will turn it back to you for Vice Chair.

CHAIRPERSON CLEVELAND: Thank you, Brooke, and thank you, everybody. So we'll move on to the nominations for Vice Chair.

MR. PARKS: Madam Chair.

CHAIRPERSON CLEVELAND: Henry.

MR. PARKS: Who's the Vice Chair at this time? Okay. In that case, I shall nominate Tiffany for Vice Chair.

CHAIRPERSON CLEVELAND: Quyana, Henry. So Tiffany has been nominated for Vice Chair. Any other nominations?

(No response)

Hearing none.

MR. PARKS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Henry.

MR. PARKS: Can I make a motion to close the nominations?

CHAIRPERSON CLEVELAND: Yes.

MR. PARKS: Henry, for the record.

CHAIRPERSON CLEVELAND: Yes. Nominations are closed for Vice Chair. We'll ask for unanimous

consent at this time. Is there anyone opposed to Tiffany as Vice Chair?

(No response)

Didn't think so. Congratulations, Tiffany. And next, we'll go to the Secretary position. Any nominations for RAC Secretary?

(No response)

Any volunteers for Secretary?

MS. ROGERS: Jackie, it's Alissa, for the record. I'll do it.

CHAIRPERSON CLEVELAND: Thank you, Alissa. So we have Alissa Nadine Rogers for Secretary. Is there any other nominations or volunteers?

(No response)

Hearing none. Let's ask for another unanimous consent. So if there are any oppositions to Alissa Nadine Rogers as Secretary, speak up now.

(No response)

And again, hearing none. Alissa Nadine Rogers is Secretary on unanimous consent. Thank you. We'll move on. And congratulations to all of us and Tiffany and Alissa. We'll move on to Meeting Announcements again with Brooke.

MS. MCDAVID: Thank you, Madam Chair. This is Brooke, for the record. I just want to start out by welcoming everyone to the Winter 2026 Yukon-Kuskokwim Delta Subsistence Regional Advisory Council meeting. My name, as I said before, is Brooke McDavid. I am the Council Coordinator and the Designated Federal Officer for this meeting. This is a public meeting, and it is being recorded and it will be transcribed. It's a hybrid meeting. So we have folks here in the room at the Long House Hotel in Bethel, and we have folks joining us on the telephone and on the computer. Folks joining us online can find meeting materials at www.doi.gov/subsistence. You can navigate to the Regions tab and then select Yukon-Kuskokwim Delta and then select Meeting Materials. The most up to date copy of the agenda is online.

We ask that folks online, please keep yourselves muted when you're not speaking so that we don't have feedback here in the room. If you're on the phone, you can use your mute button or press star-six to mute or unmute. And on your computer, you can use your mute button. If you're online and you want to raise your hand to comment on anything throughout the meeting, you can press star-five on your phone, or you can use the raise hand button on the Teams meeting, if you're on the computer. For folks here in the room, we just kindly ask that you sign-in each day at the sign-in sheet on the back table, helps us keep track of the meeting record. And then a friendly reminder that we do conduct our meetings using Robert's Rules of Order. We just ask that anyone that wishes to speak throughout the meeting get the attention of the Chair, and the Chair will call on you. We also ask that everyone just be respectful throughout the meeting. Even when topics get passionate, just respect each other and no name calling, please.

There will be several opportunities for public comments throughout the meeting each day -- each morning of the meeting, we will have opportunity to comment on non-agenda items. Today that will come after Council Member Reports. But tomorrow and if we go to a third day, that will be first thing in the morning after roll call. If you'd like to sign up to comment on an agenda item or a non-agenda item, if you're here in the room, there are green cards in the back. You can fill one out and pass it to myself or any staff member. And if you're online and want to comment, as I mentioned before, you can raise your hand or press star-five, or simply say Madam Chair. We will take comments on agenda items as they come up on the agenda.

This meeting, as I mentioned, is being recorded and transcribed. We have Gabe here with us from Talking Circle Media. He's helping us do the recording. And then later there will be someone else who types the transcription. So it's important to say your name every time when you start speaking. Usually, we have our interpreter here with us Pat Sampson. Unfortunately, there was an issue with the luggage on the airplane last night and so all of the equipment didn't make it in time. So we really apologize that this morning we don't have our interpreter, but we're hoping that equipment will make it today on the jet. And he might be joining us this afternoon. If he comes, I can give a reminder

about the headsets, but we have transcription headsets, there will be headphones, and you can listen to the Yup'ik-English translation on those headsets. So thank you to our Yup'ik speakers for indulging us and helping to speak in English this morning.

For Council Membership Updates. We still have not received the appointments for last year, for 2025. And that's Henry, Norma, John and Walter. You all reapplied and we're hoping that soon after this meeting, we'll get the final word. We're just still waiting on those from Washington, D.C., so you can continue to serve on the Council even though your term is expired because we have not received those appointments yet. And then for this year, as I mentioned, Jackie, Francis, Alissa, Phillip and Wassily will need to reapply. If you would like to serve another term on the Council, I have incumbent applications with me if I haven't given you one yet, I'll give you one at the break. And then hopefully if appointments return on time. Folks who reapply or apply to the Council this year would hear usually in December by the end of this year, for your term to start next year in 2027. Anyone else that you know that -- or anyone that's online that might be interested in serving on the Council, the application period is open right now. It closes on April 2nd, so anyone can apply or nominate someone else, and those applications are available on our website. We have them on the table in the back of the room. So, encourage anyone that might be interested to fill out an application. It is a competitive process, so there's not a guarantee if you apply that you'll be appointed to the Council, but we're always looking for new interested members.

An update on the youth seat, the non-voting young leader seat that was added to the Council and we're hoping when the appointments come in from last year that we will have a new young leader that will be joining us at future meetings to start learning the process of how the Federal Subsistence Management Program operates. I did want to make an announcement that today at 1:30 p.m., there is a tribal consultation that's being hosted by Department of Interior about the Secretarial Review of the Federal Subsistence Management Program. That's the second statewide consultation that's being offered. There was one last week on March 10th, and this is the last scheduled statewide opportunity to participate in consultation regarding this topic. If any tribes are ANCSA corporations are interested in a one-

on-one consultation, though you can always request that, and we'll be talking -- I'll just give a little update about the Secretarial Review later in the meeting. It's on our agenda. Probably won't get to that today, but you probably remember talking about it a lot at the last meeting. All right. I believe that is all the updates that I had for today. Thank you for letting me speak for so long, and I will turn it back to Madam Chair. Quyana.

CHAIRPERSON CLEVELAND: Thank you, Brooke. So that was it for announcements for now, and we'll move on to number 6. Welcome and Introductions. Since I can, I'm going to go last. So Tiffany, can we start with you?

(Talking)

Okay. We'll just. Oh, this is separate from reports, by the way. It's just a hello and introductions.

MS. AGAYAR: Good morning. My name is Tiffany Agayar. I'm from Alakanuk.

CHAIRPERSON CLEVELAND: John. Introduction (In Native).

MR. ANDREW: John Andrew, Kwethluk. My name is John Andrew. I am from the Organized Village of Kwethluk.

MR. ALEXIE: Good morning. Wassily Alexie, Russian Mission.

MR. BEANS: Fred Beans, Mountain Village.

MR. PRINCE: Good morning. Francis Prince, Jr., from Kotlik, Alaska.

MR. PARKS: Good morning everybody. Henry Parks from Native Village of Nunapitchuk.

MR. PETER: My name is Phillip Peter from Akiachak.

MS. MCDAVID: And good morning again, Brooke McDavid Council Coordinator. I live in Fairbanks.

CHAIRPERSON CLEVELAND: And online I think we have -- okay, first we'll go with the audience

before we go online.

MS. ROGERS: Did you want to do Council members first, Madame Chair?

CHAIRPERSON CLEVELAND: Yes, let's do that. I started to do that, and then I got distracted. So yes. Council members online. We're with -- we're at introduction.

(Simultaneous speech)

MS. ROGERS: Myron, you can go before me.

CHAIRPERSON CLEVELAND: Someone just gave Myron first. Myron, do you want to introduce yourself?

(No response)

If you are speaking, Myron, we can't hear you. Maybe you're on mute, but -- okay. You're unmuted now.

(No response)

While we're waiting. Alissa, do you want to introduce yourself?

MS. ROGERS: I can. Quyana, Madam Chair. Alissa Rogers for the record. (In Native). Alice (In Native) Hanson and John (In Native) Hanson. My mom is Mary Paul Hanson. (Indiscernible) Bridgette Hill Joseph from Hooper Bay. (Indiscernible) Lincoln Fred Josef from Hooper Bay and Tooksook Bay, and my dad's (indiscernible) Joseph. Madam Secretary for the Federal Yukon-Kuskokwim Regional Advisory Council, Madam Co-Chair for the Kuskokwim River Scammon Management Working Group, Madam Secretary for Alaska State Fish and Game Advisory Committee, First Nation Future Leaders Fellowship with Stanford University, Co-founder of (indiscernible) Donlin Gold Working Group, Co-founder of the Yukon-Kuskokwim River Alliance, Co-founder of the Calista Women's Group, Ambassador for NOAA and Alaska Youth Congressional Delegate, Member of the Alaska Community Action on Toxics, Member of the Alaska Derelict Vessel Task Force, Member of the AFN Subsistence Committee, Member of the Leo Networking and owner of the Rogers LLC. contracts for education and outreach development of environmental, fisheries and

wildlife proposals and regulatory process. Quyana, Madam Chair.

CHAIRPERSON CLEVELAND: Quyana, Alissa. And then, Myron, do we have you back yet?

(No response)

Okay. We'll wait on you, and while we're doing that, I'll go. I'm Jacqueline Cleveland, mostly go by Jackie. My Yu'pik name is Nalikutaar. I'm from Quinhagak, Alaska. Quyana.

(Pause)

Myron, (In Native).

(No response)

MS. MCDAVID: Myron, this is Brooke. It's showing you're unmuted right now, but we still can't hear you. I'm not sure. You might need to try calling back in.

CHAIRPERSON CLEVELAND: While we're waiting for Myron, can we have introductions in from the audience, please? There's some -- there's two mics up here, if you want to come up and state your name and who you're representing. Thank you.

MS. VICENTE: Good morning, everyone. Terese Vicente, Policy and Programs Director with the Kuskokwim River Inter-Tribal Fish Commission. Good to see you all.

MR. MOSES: Good morning, everybody. Aaron Moses, Yukon Delta National Wildlife Refuge.

MS. BOECK: Good morning, everyone. Laurie Boeck. Deputy Refuge Manager, Yukon Delta National Wildlife Refuge.

MR. NICORI: Hi. Good morning. My name is Emmitt Nicori, a Refuge Information Technician with the refuge.

MR. ALEXIE: Good morning. This is Cristian Alexie, Jr., a Refuge Information Technician with the Yukon Delta National Wildlife Refuge. Quyana.

MR. SHEPPARD: Good morning. This is Stanislaus Sheppard with Yukon Delta National Wildlife Refuge as Refuge Information Technician here on the Lower Yukon.

MR. NANENG: Good morning. This is Myron. Can you hear me now?

CHAIRPERSON CLEVELAND: Yes, Myron. Welcome back.

MR. NANENG: Yeah. Quyana. My name is Myron Naneng, Sr., I'm from Hooper Bay. I've held a lot of positions, but finally attending a meeting after having (indiscernible) for the last few meetings but good to try and get back on track to see what's going on, so thank you very much.

CHAIRPERSON CLEVELAND: Thank you, everyone. And we have a couple more people in the audience.

MR. CHEN: Good morning, Madam Chair and Council Members. My name is Glenn Chen. I'm the Subsistence Branch Chief for the Bureau of Indian Affairs. Always a pleasure to attend your meetings.

UNIDENTIFIED: My name is Nick (indiscernible) and I'm from Kwethluk. Good morning.

UNIDENTIFIED: Good morning. (Indiscernible). Kwethluk.

CHAIRPERSON CLEVELAND: Quyana (In Native).

MS. WILLIAMS: Good morning, Madam Chair and Members of the Council. I'm Liz Williams. I'm an anthropologist from OSM. And your friend Pippa retired, so I'll be working with you on anthropology, cultural traditional knowledge issues. It's good to meet you.

MS. WESSELS: Good morning, Madam Chair, Members of the Council. My name is Katya Wessels. I'm the Council Coordination Division Supervisor with OSM. Some of you met me in the past, but I haven't been to your meeting in person for a while. And I'm very glad to be here in person again in Bethel. Thank you.

MR. FOLEY: Good morning, Madam Chair and Members of the Council. It's wonderful to be here and see some new faces, as well as many old. My name is Kevin Foley. I'm a Fisheries Biologist with OSM and I'm looking forward to talking with you all today. Thank you.

CHAIRPERSON CLEVELAND: Thanks for being here, everyone. We have one more over here in the corner.

MR. TEGOSEAK: Gabe Tegoseak. Technical Director for Talking Circle Media.

CHAIRPERSON CLEVELAND: Thanks, Gabe. And then we will move on back online. To everyone else who's joined us online. Who should we start with, Brooke?

MS. MCDAVID: We'll start -- this is Brooke. I'll help walk us through folks online. We'll start with OSM. Anyone from OSM?

MR. PLANKS: Good morning, everybody. Tom Planks, Wildlife Biologist, OSM.

MS. MCDAVID: All right. (Distortion) anyone from Alaska Department of Fish and Game?

MS. DECKER: Good morning, Madam Chair. Members of the Council, this is Sam Decker with Alaska Department of Fish and Game.

MR. BEMBENIC: Good morning everybody. This is Tim Bembenic, Division of Subsistence, Alaska Department of Fish and Game in Fairbanks.

MS. MCDAVID: Good morning. Thanks for joining us. Do we have anyone joining us from tribes or ANCSA corporations online?

(No response)

All right. Any other Alaska Native organizations?

(No response)

What about other non-governmental organizations?

(No response)

Okay. Moving on. Fish and Wildlife Service, if you haven't already introduced yourself.

MR. TULIK: Good morning. My name is Christopher Tulik. Supervising RIT with Yukon Delta National Wildlife Refuge.

MR. HERRON: Good morning, everyone. This is Keith Herron with the U.S. Fish and Wildlife Service, Assistant Fishery Manager on the Yukon.

MS. MCDAVID: All right. Anyone else online, members of the public or anyone that has not yet introduced themselves?

(No response)

I think that's everyone, Madam Chair. Thank you.

CHAIRPERSON CLEVELAND: Thank you for doing that, Brooke. Can we move on to the review and adopting of the agenda, please?

MS. MCDAVID: Thank you, Madam Chair. I can go over the agenda really quickly, and then we would just need a motion to adopt the agenda. So this morning we'll -- after adopting the agenda, we'll go over the meeting minutes from last meeting. And then there was one thing I wanted to add before the subsistence reports. We have one service award we didn't get to give out last time at our last meeting when Jackie and Henry got their certificates for five years of service. So we'll do that briefly before we move into the Council Member Reports. We do have one new council member in person with us today, Mr. Fred Beans. So I was letting Fred know a little bit about the reports yesterday, and that's just an opportunity for council members to share what's been going on in your area, in your community. What types of subsistence activities people have been participating in, any observations that you might like to share about the environment or animals in your area. Any other important subsistence meetings you've been participating in, things like that. After our Council Member Reports, we'll have comments on non-agenda items by anyone that would like to comment, and then we'll move into the meat of our meeting, which is our action items.

This is the start of a federal fisheries regulatory cycle this year. So, at this meeting, the Council will decide if you want to submit any Federal Subsistence Fisheries Proposals for the Kuskokwim or Yukon, and then at your fall meeting, you will be voting on all the proposals that are submitted by this Council or anyone else, any members of the public. It's also a call out right now for rural/non-rural determination proposals. We will be reviewing the annual report that you all decided the topics for at your last meeting. We'll also review the Secretarial Review comments that you provided at the last meeting. There will be an opportunity to submit additional comments if you wish That comment period closes on March 30th. There have been two special action requests submitted for Western Arctic Caribou. I know those are really far outside of your region, but some people on the Lower Yukon have a customary and traditional use for Western Arctic Caribou in Unit 22. So it's up to you guys if you want to take up those special action requests or if you just want to defer to the Subsistence Advisory Councils in the northern part of the state.

There's also a call for Board of Game proposals out currently, those are due on May 1st. If this Council would like to submit any proposals, you will need to do so at this meeting. There is a draft proposal we heard from Mr. Grant Coplin at our last meeting, who's interested in -- well, he's going to submit a proposal to the Board of Game to limit non-resident hunting on the Lower Yukon. So a copy of that has been included in your meeting materials if you want to provide any feedback to Mr. Coplin. There is a request from the Eastern Interior Subsistence Advisory Council to modify the Yukon fisheries delegated authority letter. We'll go over that at that time. We'll confirm our meeting dates and look at an example regulatory map that has the Native lands added to it, like you guys requested at one of your last meetings.

We have a number of reports. Those are divided into fisheries reports and then other more general updates. This afternoon there is a time certain report at 2:30. We'll be hearing from Lisa Stuby with Alaska Department of Fish and Game, who will be giving an overview of pike, their life history, and then after that a researcher from the University of Alaska is going to talk to us some more about beaver and -- beaver and fish interactions. During the last meeting there was a lot of interest and discussion about that. So they'll

both be joining us remotely. That's the only time certain item we have today. So depending on where we are at 2:30, we'll have to pivot and go to that presentation.

And then tomorrow morning there's also two -- or there's one presentation that we'll need to take and that's from the Alaska Migratory Bird Co-Management Council. Patty Schwalenberg is going to call in and give a presentation about their proposal process that they use with the AMBCC. In the past, this Council has been interested in submitting proposals about migratory birds, and those fall outside of the Federal Subsistence Board, so she's going to talk to you all about how to go about submitting proposals or engaging in their process, if you're interested. And then tomorrow afternoon, Division of Subsistence, they're actually going to be coming back from Nunam Iqua on the lower -- on the coastal lower Yukon from doing some field work, and they're hoping to be here in person tomorrow afternoon. And they'd like to be able to do their presentation at that time. Other than that, those are the only sort of time certain things to note, Madam Chair, and I will turn it back over to you. Thank you.

CHAIRPERSON CLEVELAND: Thank you for reading the agenda, Brooke. If no one sees anything for editing, or any anything to fix, then we can entertain a motion to adopt the agenda.

MR. PETER: Madam Chairman, I'd like to make a motion to accept the agenda.

CHAIRPERSON CLEVELAND: Okay.

MR. PETER: Phillip Peter.

CHAIRPERSON CLEVELAND: Quyana, Phillip. Phillip motions to adopt the agenda. Is there a second?

MR. ANDREW: Second.

CHAIRPERSON CLEVELAND: John Andrew seconds. All in favor of adopting the agenda, say aye.

IN UNISON: Aye.

CHAIRPERSON CLEVELAND: All opposed, same sign.

(No response)

Motion carries. Thank you. Moving along to number eight, Review and Approve Fall 2025 Meeting Minutes. And it says page three.

(Pause)

MS. MCDAVID: Thank you, Madam Chair. This is Brooke. Council members, I just wanted to point out in your minutes from last meeting there's all of the wildlife proposals that you voted on that are noted. That way if you're -- if you or your tribes are interested in calling in to the Federal Subsistence Board meeting that will be happening at the end of April this could be a good reference for that. And then, yeah, it's just noted the topics that you came up with in your annual report and that you voted to submit comments on three different things at your last meeting, the North Pacific Fishery Management Council chum bycatch, the Alaska Board of Fisheries Proposals for Area M and the Statewide Meeting and then the Secretarial Review comments. Thank you.

MS. ROGERS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Alissa.

MS. ROGERS: I so move to accept the meeting minutes as written. Thank you, Madam Chair.

CHAIRPERSON CLEVELAND: Thank you, Alissa. So, Alissa Nadine Rogers moves to accept the -- actually the January 2026 meeting minutes. Is there a second?

MR. ANDREW: Second.

CHAIRPERSON CLEVELAND: Seconded by John Andrew. All in favor of supporting the meeting minutes from January 26th, say aye.

IN UNISON: Aye.

CHAIRPERSON CLEVELAND: All opposed, same sign.

(No response)

Motion passes. Thank you. Before we move on to reports, we're going to go and give out our one

certificate we didn't give out in the last meeting. And, Brooke, I'll let you do that. Thanks.

MS. MCDAVID: Thank you, Madam Chair. Just wanted to give a chance for Katya Wessels to come up. We wanted to recognize Council Member Wassily Alexie at this meeting for his five years of service on the Council. Thank you very much, Wass, for your dedication to subsistence, and if you want to step forward and get your certificate from Katya.

CHAIRPERSON CLEVELAND: Yes, Katya.

MS. WESSELS: Katya Wessels. I just wanted to add that my personal thank you to Wassily, because five years is a pretty big mark for being a council member. You know, we're very appreciative of all of you serving on the Council, but, you know, giving five years of your life and dedicated service to the Council, it's, you know, very much admirable and appreciated by all of the users whom you represent on the Council. And we know that all of you, volunteering your time and you're sharing your knowledge and experience with us, with everybody, and we are very thankful to all of you. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Katya. That was nice. And congratulations and thank you, Wassily.

MR. ALEXIE: Thank you guys. I didn't know it had already passed five years. It came by pretty quick. I hope to serve many more years. You know, a lot of good experience and thank you, guys.

CHAIRPERSON CLEVELAND: Thanks again. And then so number 9 is Regional Subsistence Reports. Council Member Reports. Since I started this way, I'll start -- report (In Native). Okay. So we'll start with Phillip Peter, Sr.

MR. PETER: My subsistence report on Kuskokwim. From the Nikolai all the way down to the mouth of the Kuskokwim there are plentiful moose increase and the ptarmigan should come back plentiful. Also, I want to make a report. The waste. Meat. While I was traveling a couple of weeks ago, a week and a half ago, and (indiscernible) with my truck in the morning, right above (indiscernible) mile and a half I see a moose meat scattered, road side of ice road. Somebody

throw those meat, moose meat. Our elders used to say that when there are plentiful animals, plentiful fish -- I believe them because they were starved long time ago, before I was born, but the stories are true when they tell me the stories. They're true. Those survivors on -- when they were starving, hungry. We're not supposed to be over -- we're not supposed to waste the meat. When we were hungry, we think what we waste. I don't know who throw those meat on the side of the road. Ice road. I got frustrated in my heart. Almost cry. On the Kuskokwim we had moratorium for five years. No hunting. Now they're plentiful. Lots.

We need to tell those young people. Those are good hunters. In the future, we need to lecture them. Let -- understand them. Not to overharvest, not to waste meat. It's not -- I got upset to this day. And I wish everybody in summertime when the fish arrive don't overharvest. Long time ago when my mom and dad were alive, in summertime, they tell me to go fish and they told me catch what you got. Do not overharvest. I've been doing it. What my mother -- doing now. So, when you go back to your villages talk to our young people. Just because they speak in English, all my children speak English, grandchildren, great grandchildren, they're all speaking English, but when I talk to them, I let them understand. So, it's going to be different year. Different year. We got lots of snow. First time I see a snow for a long, long time. A lot of snow all over. Deep, deep snow. So good luck on the summertime. Quyana. Thank you.

CHAIRPERSON CLEVELAND: Quyana, Phillip. Henry. (In Native).

MR. PARKS: Good morning, everyone. For the record, my name is Henry Parks. I am from the Native Village of Nunapitchuk. From our last meeting, which was held in January, I have nothing much to report but the weather has been issue because, you know, back in my village, there's hardly any trees, flat country up there. It's always windy, so we didn't do much hunting activities this year due to, like I said, to cold weather. But I saw moose coming by through our village about maybe two miles out from my house when my neighbor called me and she stated there's two moose that are heading toward to Kasigluk. When I went out and saw those two moose. But I believe that some guy, maybe my other neighbor, shot the other one because it was open, so I -- but I look forward for the federal guys --

agencies to give us an opening again this coming summer for fishing. And on top of that, I don't have much to report anymore. So, quyana. Thank you.

CHAIRPERSON CLEVELAND: Quyana, Henry. (In Native). And then Francis.

MR. PRINCE: Good morning. My name is Francis Prince, Jr., from Kotlik, and from my last report, I just want to add what I said from the last time from my report, we have plenty of moose and our whitefish declined, but hopefully this coming spring time, the population will come back up since we have a very cold winter. And I was hoping everybody had a good warm winter. And the locals are going to start doing pike fishing pretty soon here. And after the typhoon, I noticed the decline in our rabbit population, but the ptarmigan remained plentiful. We finally got a cold winter this season and we had plenty of salmonberries last year, but poor blueberries, and hopefully our blackberries will slowly increase. But every year we deal with flooding and there are times -- we do flood in the winter. But luckily this year that the ice was pretty thick that the water didn't have to get into the village. It just stayed on the river but it was very high though, and I noticed a decline in our seal population during the fall time, the past couple of years as well. And I just wanted to add that since there are a few grants out there in the past for opening reindeer, you know, I was seeing if like, if our villages, our tribes could start applying for this grant to open up reindeer in their villages to create jobs just for the locals, but it'll be plenty of subsistence food for the villages. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Francis. The reindeer idea is interesting. I've thought of it before, so you and I should talk about it again after.

MR. BEANS: Good morning. Fred Beans here, from Mountain Village. I, you know, Mountain Village, I keep hearing moose, moose, moose. You had to come from Mountain Village, you'll see maybe 6 or 7 moose in midtown, and not only that there's ptarmigan too. They've been flying into Mountain Village for I don't know why, but -- and when I went out hunting for ptarmigan, I didn't even see any out there. I only see them in Mountain Village. But yeah. As for other subsistence activity there -- people, there's a few nets

out, but this fall there was a -- the water came up really high and then dropped off fast, and we had icebergs on -- icebergs and rough ice, and there was not too much chance to go out and set nets because there was no -- it was all jagged to -- so some had to, you know, didn't have -- didn't set nets. And there was some whitefish. They caught some whitefish and sheefish and lush, but not as much as before. And then I asked the guys if they were not going out for blackfish, they said, no. There's hardly any out there, so. And it's been pretty cold winter, so we haven't had much of anything. Although there's plenty of moose but of course you get tired of moose. Anyway, other than that, it's been cold winter, lots of snow, so. And that's as much as I can -- that's all I can report. Thank you.

CHAIRPERSON CLEVELAND: Quyana. Wassily.

MR. ALEXIE: Good morning. Thank you. My name is Wassily Alexie. I'm from Russian Mission. I don't have very much to report, but sorry I missed the last meeting. I've been having -- well, I had a tough year this year. First part of December, I lost my brother. It was unexpected. Then a month later, I lost one of my grandchilds [sic]. He was only 14-15. Up to now, he still hasn't been found. So, we had a pretty rough year. Other than that, there's quite a few moose all over, I heard. From Marshall on down to Mountain, I heard about stories of moose in the village. Me, myself, I went out maybe two weeks ago to get my moose and there's one little area right above Russian, maybe a mile above. I was surprised to count 26 moose in just a little area. But yeah, there's quite a few moose and we have a lot of snow, and our waters still high so I think we're going to -- it's going to be -- we're going to have potential of high water this spring when once the ice goes. The ice is pretty thick. I've been seeing a lot of ptarmigans too. I haven't seen them for a few years, but they've been coming around.

People are having tough time going out getting wood because there's snow, you know. We haven't had weather like we usually have, rain, snow, rain, freeze. This year it's been different. We haven't had any warm weather. It's been cold and there's just maybe an inch or two-inch of crust on top, and people think, oh, it's good. They go out and get wood, and they break through and you're up to your chest in snow. So, it's been a challenge with all the snow.

But you know what Phillip was talking about, wasting moose. There's a lot of moose that's been wasted. I've seen that all fall from moose hunting last fall. Just for the antlers, too. We ran into a couple moose just the head, antlers were taken out. So hopefully we get to do something about that. And from my story, what I heard during -- once you noticed there's a lot of animals next year or so they'll disappear. Just like how the caribou was -- I used to go caribou hunting in Whitefish Lake, and they had so many caribou out there. One year we brought a bunch of students out. There was a lot of caribou all over we seen. The next year they were gone. They all moved out and they never did came back. It's pretty much the same thing with the fish. We get a lot of fish one year. The next year or so there's hardly anything. So, it could be a sign of something with all these moose all over. Even here in the Kuskokwim, I hear there's a lot of moose now. So, we need to do something to try to protect those. That's our main source of food right now, is moose, because there's plenty of them all over. Anyway, that's my story. Thank you.

CHAIRPERSON CLEVELAND: Quyana, Wassily.

MR. ANDREW: Yeah. Quyana. My name is John Andrew from Kwethluk. For me, ever since last summer, I was having motor problems. I never got to go fish on my own. Same way with (indiscernible) even get to go moose hunting yet. People I used to go hunting with their children and their grandchildren and great grandchildren bring me moose, fish and salmon, even rabbits, and ptarmigan. Starting up to freeze up -- some time after freeze up, some of the young people go out there (indiscernible) for a burbot and we get fresh burbot all the way out to end of August. Now starting around sometime in August, some of them were checking for them in boats right after freeze up. They were getting them right about Thanksgiving. It froze up pretty close to Thanksgiving. We had a very late freeze up to our way. And I used to get fresh fish from people that go out night fishing. When the weather was mild in December, January, some of them offered to bring me anywhere from a few to up to 14-15 pike, but after it got -- the weather got cold, they -- some of them offered to bring me ptarmigan, and I've been telling them wait till it's warm enough to hang them to dry them. They always try to give us -- this year they said lots of ptarmigan everywhere. We can even see them around the villages.

A couple of days ago, I took a ride with my four-wheeler, shot a few enough to give away and only kept four. But all this time I could fish, meat and ptarmigan from other people. I was very grateful for them. But on the -- people starting in November were asking for dry fish even though I can never get to go, I still share with them what was given to me. I still share with the people that need them. Even with the moose. I've been lucky enough to get the moose meat from different people. Most of the young men from the village, even someone that worked over at Fish and Game over there gave me almost one whole moose, a cow moose, and he said there was a Yukon moose. He caught it from right near one of the Russian Mission islands, one of the (indiscernible) moose islands, which is very, very fat. Almost one whole moose. The only thing was missing was the rump and I was asking for the internal contents of it, he said, we left the whole gut pile. I tell him, you left the best parts. And even this winter, I was very fortunate. I still get the offers of moose meat some (indiscernible). Even if I get it, I still cut them up and still give them. Other day I gave away a box to a lady from Napaskiak and another family from here. They came up asking for fish and I said no, I can give away moose that I just got from someone else. Quyana. Thank you.

CHAIRPERSON CLEVELAND: Quyana (In Native), John. Tiffany.

MS. AGAYAR: Good morning. My name is Tiffany Agayar from Alakanuk. Just like everybody else says, we've been having a lot -- higher number of moose around, and in the past few months they started coming back to stay in the villages, which indicates that there's predators nearby. And during the last cold spell, a lot of moose have just not wakened up. My nephew that came to visit me from Saint Mary's said he counted ten dead moose on his way down to our village from Saint Mary’s. And he came right after one of the cold spells where we had like 35-40 below wind chills. And within our own slough, we had two of them go to bed and not wake up. And people have been catching some to pass out for our villages when we have (In Native), and it's been very good to be able to have winter moose again. I never had it when I was a kid.

When we went riding, I was very surprised to be seeing [sic] more flocks of ptarmigan

again, as in compared to the past few years where I haven't seen that much ptarmigan. And they're even coming back into the -- where they used to be when I was a little girl back in the lakes behind our village. It's really good to start seeing to see them coming back again. And just like Francis said, we had a decline in rabbits and I haven't seen much rabbits this year -- this past winter compared to last year. We do have a lot of snow, which it's very similar to last year. But we're not really expecting it to flood in our area, maybe just a little bit of high water. And people are talking and planning about going to go (In Native) pretty soon for pike up river, and then usually people start (In Native) for sheefish in about 2 to 3 weeks. When I talked to my aunt last week, she said her son's net has been catching sheefish very slowly. Not very much yet. I'm not sure what else to report. Oh. I went to the North Pacific Fisheries Management Council meeting. Yeah. That one? For the bycatch. And it's good that there's a cap now. Or not, I don't know, but yeah. Everybody has sacrifices they have to make now. I'm not sure what else to report. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Tiffany, and for testifying at North Pacific, too. Before I go, there are two council members online. Either Myron or Alissa, whoever wants to volunteer first can give their report.

MS. ROGERS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Alissa.

MS. ROGERS: Thank you. Alissa Rogers, for the record. I'd like to give my report tomorrow. I have a couple questions for some hunters that -- regarding wolves, so I'll give them my report tomorrow, if that's okay with you, Madam Chair.

CHAIRPERSON CLEVELAND: Sure. Is there anything you wanted to ask now, or are you saving that for tomorrow?

MS. ROGERS: Yeah, I'll go ahead and save mine for tomorrow. Quyana.

CHAIRPERSON CLEVELAND: Yep. And then, Myron, do you feel ready to give your report? Myron (In Native).

(No response)

If you are reporting, Myron, we can't hear you. Just so you know. Maybe call back again if that worked the last time. But while you're doing that, I'll quickly do mine. So, since the last report in January, not much has happened for me as well. But we are noticing since Halong There's not many blackfish in the blackfish traps. And there's a lot less rabbits, like I'm hearing from other people, too but a lot more ptarmigan. And the elders are saying at home that this is the longest, coldest -- cold, long spell that they've ever experienced. They're saying that usually in March, you can feel the spring and it's still very, very cold at home, and the whole region. And I think we're still recovering from not just Halong, but January's power outage disaster declaration at home we had again. It's just been a hard winter with the cold and water sewer issues. And it seems like a lot of people getting sick all at once, including myself. I'm recovering. But people were happy to have a winter moose hunt either -- whether that meant going to the Yukon or to Zone 2 or the extended one we had after Halong.

We're also fishing for trout, smelt, and pike right now, and those seem to be okay numbers as far as I could tell. There's no big changes there. And more on the tribe side, I had mentioned the recordable disclaimers of interest that we decided to take on as a tribe and now we're jointly opposing the RDIs with our corporation on the Arolik River. We are also given 420.2 acres of land from our corporation, direct to the tribe, where this is going to be our new retreat area for Quinhagak, rather than adapt in place or total relocation, we're looking at more of a retreat towards the newer airport where we were given that 420.2 acres of land to start planning for a subdivision, a road that will access a new water intake and more access to gravel. So those are some of the big things that we're working on at home. And then I'll keep it short and check on Myron again. Myron (In Native).

MR. NANENG: Can you hear me? Can you hear me?

CHAIRPERSON CLEVELAND: Yeah (In Native).

MR. NANENG: Okay, because my name is Myron Naneng, Sr. and I'm from Hooper Bay. I think

there's been a lot of concern about people out in the coast regarding the typhoons that we had. A lot of impact on a couple of villages. Two years ago was Hooper Bay, Chevak, and those two villages were impacted the most. Quite a bit. And now this year we have Kipnuk, Kuiggluk and Nightmute, and other villages were impacted by the October storm. One of the concerns that has come up since I haven't been attending the last couple of meetings, is they're starting to be trespassed by guides that bring in hunters to the village corporation lands to go moose hunting during the fall time. One of the things that needs to be done is to report to the State Troopers, and we've been trying to work with the local Fish and Wildlife Refuge here in Bethel to try and address that but we're being referred to Fish and Wildlife, the State Troopers. What we need to do is identify the clients and their numbers so that we send the letters to them saying that these territories closed unless you have a hunting permit from the Village Corporation or the company that are the owner of that land. So there's -- that getting to be a lot of competition for people that are go out hunting during the fall time when we go moose hunting, and they're competing with those villages that have signed land use permits that bring out hunters, that will help address some of the issues regarding moose population. And so that's ongoing, and our Village Corporation of Hooper Bay is writing a letter to the State Troopers, as well as the owners of the guidance services that come out there that we've identified having -- through the help of our some of the other guidance services who report that these people are hunting in those areas where they have land use permits and they're coming from the village corporations.

And the typhoon impacted -- October typhoon impacted the boardwalk that we've been working with U.S. Fish and Wildlife Service and USDA to help build a trail that will reduce the impacts of all-terrain vehicles going on lands that don't have trail systems. So, and one of the things that we've noticed after building that is that some of the boats are now starting to (indiscernible) back again on those lines where we have built that trail -- boardwalk trail to areas that village has selected for subsistence purposes. And it's made a big impact on reducing land -- terrain damage to the lands that we have out there. So I think that the thing that we really need to take a look at is how much impact the all-terrain vehicles have on our own village lands that we use for subsistence, because the land is

our plate of food, and also to reduce competition from outside sports hunters, who also do a lot of wanton waste by just taking the antlers off moose and leaving the whole moose behind.

So fishing, I know is still a concern that's impacting Hooper, Chevak, Scammon on the Yukon because they're south of the Yukon River. Complete closures of those fishing areas of the Yukon River, yet Alaska and the U.S. government have a treaty agreement with Canada to allow for certain number of fish to go up into Canada and that's been ongoing since the early 2020 or, you know, 1920s. Like the first time I attended the meeting on that treaty was back around 1996. And every year salmon return to the rivers have declined. And I'm glad that the recent Board of Fish has voted to reduce some of the fishing activity down in Area M. However, one of the concerns that we've had over the years is the so-called conflict of interest from -- of people that (indiscernible) from our area to reduce their fisheries. And complete subsistence closures on the Yukon River is unacceptable, especially when we have a treaty obligation. I know the trawls. Bycatch is also a concern, along with interception of fisheries there in Area M, but let's support the state in reducing bycatch and interception of the Bering Sea. And do we now look at a lot of people that are running for federal and state government trying to state their position regarding that (indiscernible), and I think we need to play an active role in that to remind them that we need our food and we need our food security. So that's all I'll say for now. I haven't gone hunting for a year. But I still go hunting in my mind, but I know at some point I'll be going back out to the tundra and hunting again. So, continue the good work, but let's keep those things in mind where we can work together to reduce impacts by outside sports centers as well as find the ways to reduce bycatch and interception for our food, to keep our food security in place. So, with that, thank you very much, Madam Chair.

CHAIRPERSON CLEVELAND: Thank you, Myron, for such a thorough report. I wanted to go back to Tiffany, who forgot a couple of things when she did her report. Tiffany.

MS. AGAYAR: I forgot to add in a couple of stuff. The little redhead winter birds, they popped out a couple of weeks ago, and then also the men that go (In Native) logging. They my son tried to go get logs

close by, but the men that get logs to sell pretty much grabbed them all. So now they have to go really far. I'm hoping we'll have high water this year so that the logs from upriver can float down. It'll be very good. My -- the men that I talked to that usually go trapping aren't as much as they used to anymore, but they're still catching wolverine, lynx and all the normal animals. I keep trying to ask people to go out and catch more beavers because there's -- they're becoming more abundant than they used to be. They're really thriving out there. Thank you.

CHAIRPERSON CLEVELAND: Thanks again, Tiffany, for your additions. How about a ten-minute break before public and tribal comments on non-agenda items? So back at 11.

(Off record)

(On record)

CHAIRPERSON CLEVELAND: Hi again. This is Jackie and it's actually been 20 minutes since the announcement for the ten-minute break. So, we're back from recess at 11:11. And make a wish or as many as you can until 11:12. So we're at number 10 on the agenda, which is Public and Tribal Comments on Non-agenda Items. And once Brooke is ready, we'll see if there's anyone signed up.

(Pause)

First, we have Nick Ayapan. Is it Ayapan or Ayapan? Ayapan? From Kwethluk. And the item he wants to comment on is fishing in Kwethluk. He's coming. Hi, Nick. (In Native). Quyana.

MR. AYAPAN: Yeah. Good morning. My name is Nick Ayapan and I'm from Kwethluk. I'm present Kwethluk Inc. (In Native). Yeah. (In Native Statement).

CHAIRPERSON CLEVELAND: Okay. (In Native).

MR. AYAPAN: (In Native Statement). Thank you, (In Native)

CHAIRPERSON CLEVELAND: Quyana, Nick. (In Native). So, Nick said he is here to support subsistence fishing to come when the time comes. That

they talk about it a lot in Kwethluk. He's also the president of his tribe. So, they talk a lot about supporting the upcoming fishing. And that he prefers not the stop-go, stop-go, stop-go system, but like a continuous, maybe, schedule. Yeah.

MR. AYAPAN: Yeah.

CHAIRPERSON CLEVELAND: And if anybody understood that differently, you're welcome to help me translate because I'm not a professional. (In Native).

MR. AYAPAN: Yeah. (In Native).

CHAIRPERSON CLEVELAND: Okay. I just got -- I passed, he said. (In Native).

MR. AYAPAN: Yeah. (In Native).

CHAIRPERSON CLEVELAND: Okay. Quyana, Nick. And then does anyone have questions for Nick from Kwethluk?

(No response)

Hearing none. And then is anyone online wanting to take part in the Public and Tribal Comment on Non-agenda Items today?

(No response)

Hearing none again. We'll have another chance in the tomorrow morning and the next morning. So that means we'll move on to number 11, Action Items and New Business. And a: is called for Federal Fisheries Proposals. And that's OSM Fisheries on page 11.

(Pause)

Thanks, Kevin. You can introduce yourself and introduce the proposal. Thanks.

MR. FOLEY: Thank you, Madam Chair. Members of the Council. For the record, my name is Kevin Foley and I'm a Fish Biologist with the Office of Subsistence Management. I'm also joined in the room with Liz Williams, Cultural Anthropologist with OSM, available for questions as well.

(Pause)

So, for the introduction of the fisheries closures that are up for review in the fall. A closure review, just for some background information. A closure review is a periodic check by the Federal Subsistence Board to determine whether or not a fishing or a hunting closure on federal public lands is still justified and to ensure closures are lifted once conditions no longer are needed. The Board requires that these reviews occur every four years to confirm the necessity of each closure and to remove those that are no longer needed in order to support federal subsistence opportunities. And this Council will be making recommendations on three fishing closure reviews during your fall meeting. All of the closures your Council will review are in the Western Interior Region and all three are salmon closures. We will bring these in front of you now so you can submit proposals related to the closures if you want to. For example, if you want to establish harvest limits or gear type restrictions in the closure areas, you'll need to submit a proposal as you will not be able to do that at your fall meeting.

Western Interior Regional Advisory Council met last month, and they chose not to submit proposals because they want to keep the salmon closures in place due to poor run sizes on the Yukon. Eastern Interior Regional Advisory Council met in early March, and they also chose not to submit proposals deferring to the home region, the Western Interior, but did request to be keep apprised of the situation and any developments that occur. So that's a very, very broad view of the closures. If the Council wants to defer to the home region and not submit any proposals, that's fine. If your Council would like more information on the closure reviews, I can provide that information to you as well.

MS. MCDAVID: Through the Chair. Thank you so much, Kevin. This is Brooke, for the record. Since this is some of council members first time, I just wanted to explain or reiterate a little more about what Kevin said about the closures. So, there are three small drainages in -- well, they're probably not that small, in the Western Interior Region that are part of the Yukon. They're up the Koyukuk River. They fall in the Western Interior Region. Those drainages are closed to salmon fishing, and the reason they come to your Council is because you have customary and traditional use for the whole Yukon drainage. So even though your area is just down at the mouth, you also are able to weigh in

on anything that's happening upstream. So those closures will come before you at the fall meeting in their entirety. And you can vote at that time to support keeping them in place or lifting them. But oftentimes this Council defers to the Western Interior Region since it's in their region, and that's typically how things are done. So, I just wanted to reiterate some of those things that Kevin said, so if you guys have any questions about those closures, you will get another opportunity in the fall time to discuss them in more detail. Quyana.

MS. ROGERS: Madame Chair.

CHAIRPERSON CLEVELAND: Alissa.

MS. ROGERS: Thank you, Madam Chair. Through the Chair. Is -- do we have anybody from Fish and Game online that can answer my question?

MS. MCDAVID: Thanks, Alissa. So, we haven't got down to developing proposals yet for this cycle. I think Kevin is going to talk next about that. He was just reviewing the federal fisheries closures. And then we'll move into to that next, if that sounds okay. Thanks.

MR. FOLEY: Thank you, Madam Chair. Members of the Council. Once again, Kevin Foley with OSM, and so here we are here to announce our call for proposals to change fisheries -- federal fisheries regulations. The Federal Subsistence Board is currently accepting proposals to change Federal Subsistence Fisheries Regulations for the 2027 through 2029 regulatory cycle, and the Board will be accepting proposals through April 3rd of this year. The Board will consider proposals to change seasons, harvest limits, methods and means, and customary and traditional use determinations for federal fisheries. If the Council wishes to submit a proposal, you'll need to do so during this meeting. The public may also submit proposals to change federal fisheries regulations. The public can find information on how to submit these proposals on the OSM website at doi.gov/subsistence/fisheries. The proposals will be analyzed by OSM staff and presented to you and other Councils during your fall meeting for Council recommendations. Proposal analyses and Council recommendations will then be presented to the Federal Subsistence Board for its action during the February 27th Fisheries Regulatory Meeting. And with that, Madam Chair, does the Council have any regulatory proposals to

put forward?

CHAIRPERSON CLEVELAND: Thank you, Kevin. Brooke wants to answer that.

MS. MCDAVID: Thank you, Madam Chair. It came to the Council's attention that at the AYK Board of Fish meeting that happened last fall, there was a proposal to add eel sticks as a subsistence gear type that's allowed on the state side for the Kuskokwim, and our team looked at the federal regulations and noticed that that was not listed as a gear type in the federal regulations. So, we just flagged that as something that you guys might want to submit a proposal to the Federal Subsistence Board, to recognize eel sticks as a gear type in the Kuskokwim, and then maybe also the Yukon, if folks in that area use eel sticks for the eel harvest. Thank you.

CHAIRPERSON CLEVELAND: Tiffany.

MS. AGAYAR: People -- excuse me. People on the Yukon use eel sticks too.

MS. ROGERS: Madame Chair.

CHAIRPERSON CLEVELAND: Alissa.

MS. ROGERS: Thank you, Madam Chair. Through the Chair. Alissa Rogers, for the record. I guess this is where the question comes into as a regulation, we don't want to keep putting stuff into the law books when if it's not there, then it's allowable, right? So I don't see why we need to keep adding more and more regulations to ourselves, if it's not in the reg book, then it's allowable, correct?

MR. FOLEY: Through the Chair, Councilwoman Nadine Rogers. I'm not really sure how to answer that question. I suspect that if an individual went out on the Kuskokwim River and attempted to use an eel stick, and if a law enforcement officer came upon them, I suspect that there would be a conversation to be had. I'm certainly not a law enforcement officer, but presently in the regulations, there is no -- eel stick is not a legal means of subsistence harvest for salmon or non-salmon fish, as provided in the Federal Fisheries Regulations. So, I guess to answer your question, if it's not in the book is it permitted or allowed, I suspect that the answer would be no.

CHAIRPERSON CLEVELAND: Thank you, Kevin. And Brooke has something to add.

MS. MCDAVID: Yeah. I just wanted to turn council members attention to your federal reg book. It's the green fisheries regulation book. You all should have a copy somewhere in front of you. On page 20 there's a list of gear types that are methods and means of taking fish. And it says you may use the following legal gear for subsistence fishing unless otherwise restricted. So, all of these types of gear are recognized currently. And then I don't believe in the area specific regulations there's any other ones that are noted. So, you could consider if you wanted to add eel sticks to this list so that it would be recognized as subsistence gear that's allowed. Thank you.

CHAIRPERSON CLEVELAND: Tiffany.

MS. AGAYAR: Tiffany, here. Excuse me for not understanding. So, if it's not on the list, is it -- it isn't a legal gear type?

MR. FOLEY: Through the Chair, Councilwoman Agayar. My understanding is that if it's not a -- not defined in federal regulations as a legal means of take, then that would be questionable. And I suspect that it would in fact draw attention from law enforcement should a law enforcement officer be observing or watching. So, I guess what you're asking is if it's not identified as a legal means of take within the federal regulations, is it in fact a legal means of take? And I would say no.

MS. AGAYAR: Thank you.

MS. ROGERS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Alissa.

MS. ROGERS: Thank you, Madam Chair. Through the Chair. I guess what I'm trying to get at is I don't feel like adding more language into the law books is beneficial for us as subsistence users. I can tell you that if it's not in the law book, it's legal. It's just like the same thing that they do with moose or caribou. If it's not in the book, it means -- then there's no point in trying to say that it's not allowable. For instance -- see, I guess the way I look

at look at it is we should be removing regulations instead of adding regulations on ourselves. If subsistence is a priority, then we should be fighting for the subsistence rights of people. So, I feel uneasy of putting more language even though an eel stick is allowable now, putting it in the book is only securing that allowability. But that's just my personal opinion. Thank you, Madam Chair.

CHAIRPERSON CLEVELAND: Thank you.

MR. ALEXIE: Madam Chair. This Wassily.

CHAIRPERSON CLEVELAND: Yes, Wassily.

MR. ALEXIE: From my understanding, is you know, I'm from the Yukon. We've been using eel sticks from the past, from long time ago, from -- our elders taught us how to use those eel sticks. Now you want to put this into the books to make it legal? Wasn't it already legal a long time ago? Because if we do put it in the books, and it becomes legal, what are they going to say? Was it illegal in the past that we've been using these or, you know, I agree with Alissa, of what she's saying. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Wassily. Brooke.

MS. MCDAVID: Thank you. I just wanted to respond to both of you. I hear your frustrations that the regulations don't reflect what's always been done traditionally, and sometimes that's just because of oversight when regulations were made. Regulations are made by people that oftentimes live in a very different place and aren't aware of all the different intricacies of subsistence lifestyle. So -- but this is an opportunity to correct that. It doesn't implicate anyone from using that gear in the past. It would help to recognize that that is a traditional gear type that is used. It is now legal in the state regulations and so mirroring that in the federal regulations -- this is an opportunity to do that and recognize that customary use of that gear type, but it is the will of the Council. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Brooke. And if I'm not speaking too soon, can I ask if any of the Kusko groups or any other RACs voted on this yet? No. Okay. All right. So, then I'd like to provide,

I guess, some comments. So. I see it as -- not as a regulation but as a new means added to the regulation book as another means to take subsistence resources. It's also another subsistence opportunity. With other food shortages, I think rather than regulating more, the idea is to like add more means and opportunity to other species as we go forward. And then again, another reason why I might agree with it more is because it would mirror the state regs, and as it is now, when we have different state and federal regs, it's just very confusing to the user. So those are my thoughts. Is there anyone else? And, and then I just want to say also that I have no experience in eel fishing.

MR. PETER: Madam Chairman, this is Phillip.

CHAIRPERSON CLEVELAND: Yeah.

MR. PETER: These regulations -- I always mentioned in the meeting, big meeting in AVCP. The only thing a regulation was in the book, commercial fishing. There's no regulation on subsistence on federal and state side. The restrictions mesh size. When the state and the federal government want to change the regulations, they should tell us. For a long, long time this restriction on set netting. About whitefish net, who inserted it? Who make it -- who inserted it and put it in the state and federal restriction on whitefish net? When I first heard it, I was really upset. Nobody. Our elders, nobody. Our past elders. Yukon and Kuskokwim. When the salmons come up, start swimming in our rivers, our elders they set net, king salmon net. Set netting. The second run mix with chinook and chum salmon, they replaced them with five and a half, six inch set net. Set nets, my father used when he was alive. I used to watch him. I used to go with him when -- go with him to set his net, set net on eddy. It's only more than 15 fathoms short net, king salmon net. And then when the second run mixed with the chinook and king -- chums (indiscernible) it was only five and a half, 28 mesh for those chums. And then when my grandmother, she used to help my mom, me and my brothers, tell us, middle part of July, she tell us, set netting, whitefish. We use whitefish on the front of the -- our fish camp. We used to catch large whitefish, middle part of July. It always go swimming. Middle part of July and Kuskokwim.

When they inserted the whitefish net, I testified in front of the federal and state Board of

Game and those Wildlife Commissioners, tell them -- I asked them who inserted for subsistence on salmon, whitefish net? Nobody say. Everybody silent. Can't answer my question. Who inserted it? Subsistence has no regulation. Long time ago, you guys, all the people knew. But their elders know. They knew. They always watched the Kuskokwim. In May, they start (indiscernible), king salmon net for set netting and also for drifting. Including the chum net. Right now, we're having a hard time because nobody come to our villages to explain the changing regulations. Changing regulations. Even the big meeting, nobody mentioned about changing the regulation. But all I know, I'm a commercial fisherman on Kuskokwim. I start fishing for commercial fishing when I was 15 years old. First opening in July. They let us fish for king salmon, chinook. Chinook net, using the chinook net. Not the small one, not the small one. Five and a half, no. In July opening they let us use 50 fathoms chum net. Also, coho. Why? When I testified before the Commissioner and the Board of Game in Fairbanks, I called that whitefish net the killer net for the salmon. Whitefish nets are deadly for salmon. Really deadly. The nose when he [sic] hit that net with his nose, they swim really quick, really fast than -- salmons. When it not break that whitefish net, whitefish net kill it. Kill that salmon.

I'll make a short comment concerning what -- I always make a comment what I do, use my body, my hands. When the first restrictions on state of Alaska, the commercial fishermen, they put regulations on commercial fishing in Kuskokwim. Five -- you got a fish five and a half, six inch, targeting the king salmon and the chum salmon. When they do in first opening, next morning after I -- fished next morning I used to go down to Bethel to pay for my loan. Holy cow. On the beaches, I see king salmon two seagulls and crows eating all the way to Bethel. These regulations need to be changed. Right now, on Kuskokwim the set netting is about 60ft. Six-inch, 45 mesh, set netting in Kuskokwim. And also for drifting in Kuskokwim. Five and a half, six-inch, 25 fathoms. Kuskokwim. Even though he got upset using those type of gear, we're silent. We're following the regulations, which is not ours. Our law. What they do, they do it not consulting us. We're following it right now to this day. Sometimes we talk about -- I never -- I got a couple of them. King salmon, one is seven and a half. One is eight-inch, 45 mesh. It's still there since 1984. I never used them. Those king salmon net, they're in my shack since 1984. Never used them. Only six-inch.

It's really upsetting. Really upsetting. But we follow it. We followed the regulations, and how long we're going to follow it? That regulation, six-inch, five and a half, six-inch. How long? I don't know. Maybe it's going to be there long, long time unless the people of Kuskokwim in the Yukon wants to change it.

I'm going to tell you the truth. When there's no regulations on subsistence, Department of Fish and Game, Department of Fish and Wildlife before they come to Kuskokwim. One drift with using my king salmon, one drift. Eat the king salmon said -- my mother told me. Put away that king salmon we're done. One drift. Now we're wasting a lot of gas for drifting. 12 hours. Sometimes 12 hours, I only catch 20 kings all day. What I -- we need to change this regulation in the future. Not whitefish net. When those elders (indiscernible) maybe they'll pull us out. They're really smart. My dad and the rest of the elders are really smart because they grow up in the river. Also in Yukon, people. They're the boss when they're alive. They always teach us, and I respect them. Sometimes I miss them. I hope unite Yukon and Kuskokwim. We could make a regulation. Work together. Including the federal and state government. Work together. All of us are 56 villages. Because now the people in my community got upset. Phillip, when are we going to use king salmon net at 25 fathoms? I said, I don't know. I can't answer it. So, thank you very much for brought this regulation thing. Quyana. Thank you.

CHAIRPERSON CLEVELAND: Quyana (In Native), Phillip. And I'm going to respond. So, I agree on needing consultation with communities when dealing with regulations, whether it's federal or state. I know that for federal regulations, it's kind of an obligation, right? To have either tribal consultation and public hearings, or both. Sometimes it's a matter of us asking for that, for it to happen. And I know for the state, it's different. They don't have the same, you know, like the same trust responsibility, but if we do have someone on the line from Fish and Game, I am wondering, is there a process? I mean, if we were to ask for consultation, would -- is the state allowed to do that with tribes? That's one question for after. And also it's understandable when you do put new regulations out there for subsistence, which maybe weren't there before, for instance, like what Phillip was saying about having regulations for subsistence gill netting, drift. set netting, that stuff, and then over the years those regulations just keep getting tighter and tighter.

MR. PETER: Yeah.

CHAIRPERSON CLEVELAND: So, it's understandable where the frustration is coming from. But it's also understandable that it's for our protection and to avoid potential getting a ticket for illegal gear -- using illegal gear type. So, I know it's not in the regulation and it seems like if it's -- or if it's not in the book, and if it's not, it might seem like it's up in the air, but I would want people to avoid getting a ticket for illegal gear types. But what we can do is put this on the floor, and even if we support it today, we won't actually vote for it until fall time. So even if we support it, by fall time, we'll know more, we'll have other RACs who have met and will have more feedback, maybe, if that's true. Yeah. So just putting out a recommendation, but also still open for comments in this matter.

MR. BEANS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Frederick.

MR. BEANS: Fred Beans, here. You know, in my mind, if the eel sticks are included into the regulation, that means they're going to be regulating our eel harvest, so. And being an eel fisherman on the Yukon, it's usually my town, Mountain Village is the first one that catches the eel, but they see them down in the lower villages, but in actuality, Mountain Village is the first one to catch them. You know, we have guys go out there and, you know, during the day or nighttime and doing eel picking in -- once eels start getting caught and then we'll -- they'll announce and then we'll go out there and do that. And that will go from, you know, from Mountain Village announced up and then further up, Pitkas Point and Saint Mary’s and Pilot Station and so forth. That way they'll -- that will be tracking the run up to Yukon. And if that were to -- if that were including the regulations, you know, we'd have -- I'm pretty sure we'd have periods of when to fish them and when not to fish them. The thing is that we don't know when they'll be arriving. So, you know. You know, if there's periods of fishing, you know, when to fish, we'd be fishing there'd be nothing. But at times when there's nobody is fishing there, you know, just pass by and you know. So, I think having the eel sticks added to the regulation, you know, I would not support that. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Frederick. Katya.

MS. WESSELS: Thank you, Madam Chair. Katya Wessels, OSM. First of all, I would like to thank Member Peter for his passionate speech and, you know, thank you for bringing to our attention that nobody comes to the communities to explain the regulation changes. We at OSM really recognize that we need to get more engaged with the communities and come, and talk to people and tell them who we are, and so you know who we are, and you recognize us and help, you know, people on the ground who actually live a subsistence lifestyle to figure out what the regulations are, at least the federal regulations. We're not state. And you know, as you know, what you said that these regulations need to change? This is your opportunity today to suggest these changes to these regulations. You were talking about the gillnet restrictions and it's on page 40 of this regulation book, so you can look it over and see, like what you would like to propose to change. Today you're just making proposals. You're not making decisions today. You're just figuring out what you want to change. You propose it, then OSM writes the big analysis, then you look at your proposal again.

So as for the gear type, you know, I consulted with someone at OSM who is a specialist, and they highly recommend that the Council suggest the eel stick to the gear type. It's not about restricting you when you can fish for eel, it's about just making sure that the gear type is legal. And because eel -- if you look at page 39, that's the Kuskokwim area. Eel is not listed as a separate fish species. It just says all other fish. That's what eel falls under. And there are no limit, no harvest limit, and it's year-round season. So it's not about us limiting when you can fish or how many eel you can catch, it's just -- if you add the eel stick, or suggest to add the eel stick as the legal gear type, it will be listed on page 20 where it says Methods and Means of Taking Fish, and then there is no question. If law enforcement comes to you when you fish for eel, that's a legal gear type and they cannot say anything to you. That you're fine, you're in the green, you can fish year-round, there is no limit on how many eel you can catch, and you're fishing with legal gear. So that's all what the eel stick is about. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Katya. Anyone else?

(No response)

MR. PETER: Madam Chairman.

CHAIRPERSON CLEVELAND: Yeah.

MR. PETER: This is Phillip. On this regulation on page 39. I want to know what the set net is monofilament net, what that -- is disappear, when you set it out, set, put it in the water, they disappear. Are those monofilament? Monofilament net, they disappear. Even you, pull the net with the fish, you had to search. Search to pull them out. My brother got one. I used that for -- he got whitefish net. That kind of net, when you set it out on the river, they disappear. Couldn't see. Catch lot of fish. One time I went to Seattle. I went to the (indiscernible) net to buy that kind of net. Only five and a half. And he said to me, this is not legal in Alaska. Not legal in Alaska, only Seattle. That's what he told me. But I don't know where my brother got that net. Still are using and he gave it to me. Good net. Really good net. Catch lot -- different fish net but really expensive. I asked that guy, how much is a 300ft, 50 fathoms, $1,600. That five and a half, $1600. Really expensive. But not legal in Alaska. Not legal in Alaska, even for subsistence. But I don't know. I asked my brother, but he always smiled. Where do you get that net? And he smiled at me and walk away. Thank you.

CHAIRPERSON CLEVELAND: Quyana, Phillip (In Native). I'm showing Phillip a photo of -- how do you say fyke net. I guess, for us, we know them as taluyaq. Tayulaq (In Native).

MR. PETERS: Yeah.

CHAIRPERSON CLEVELAND: So, it looks like -- taluyaq are blackfish traps that we make, and this looks like a -- one of those, and maybe bigger. Oh, and taluyaq are made for -- made as -- are -- there fish traps made for different species, and in my region we mostly use them for blackfish and Tiffany said they use theirs for whitefish further upriver. So -- and lush fish. Learn something new every day in this group. Brooke has something to add.

MS. MCDAVID: Thank you. Through the Chair. This is Brooke. I just wanted to kind of remind council members, this is -- at this meeting, you have the opportunity to submit proposals. That doesn't mean they're going to go to the Board. Well, they'll go to the Board, but that doesn't mean they're going to pass. In the fall time, you'll get an opportunity to vote on any proposals. So, after conferring with the Chair, we might go ahead and break for lunch in a few minutes and continue this discussion after lunch. But I wanted to remind council members in your green fisheries book on page 39 is Kuskokwim area fishing regs, and then the Yukon northern regs -- let's see. They start on page 33. So maybe over lunch, you could kind of start looking through and when we come back from lunch -- just to get your gears turning a little. If you want to submit any proposals to change, remember, this is just for the federal fisheries and some things, you know, can be adjusted through in-season management. They might not necessarily require a proposal, but anything you might want to change in the regulations, could talk about that after lunch. Thank you.

CHAIRPERSON CLEVELAND: Thanks, Brooke. Does that sound okay to you guys, break for lunch and come back to this? Okay. It's 12:08, and we're breaking for lunch now. When should -- how long should we -- 1:30. We'll be back 1:30. See you then.

(Off record)

(On record)

CHAIRPERSON CLEVELAND: Sorry for the delay. We were setting up the transcribing equipment, but we're about to get started. Go ahead, Brooke, with your announcement.

MS. MCDAVID: Thank you, Madam Chair, this is Brooke. Just for folks here in the room. We do have our Yu'pik interpreter with us today, Mr. Pat Sampson, he's over here to my right. And there are headsets available on the table for anyone that would like to listen to the translations that he might be providing, you can pick one up. You just have to turn the dial on the top, the little wheel so that it clicks on. You should see a red or green light when it turns on and then set the channel to channel number one. And then anytime you want to listen to English to Yup'ik, or Yup'ik to English, you can put on the headsets. And

we apologize to folks online that currently the translations are not available, for those joining us remotely, but we'll do our best to make sure you're looped in with any explanations you might need.

CHAIRPERSON CLEVELAND: So, welcome back from lunch, it's 1:46 and we left off with number 11, Action Items and New Business. And we were still under Call for Federal Fisheries Proposals. Kevin. Yeah, Kevin, you have the floor.

MR. FOLEY: Thank you, Madam Chair. So, I guess at this point we -- when we broke before for lunch we were discussing whether or not this Council had any proposals to put forward. And I think that's where we left it, we were uncertain, if I'm not mistaken.

CHAIRPERSON CLEVELAND: Thank you, Kevin. Yes, you're correct. So, over lunch did anyone happened -- did you all happen to give it more thought about whether or not we should support this proposal on eel sticks, which doesn't mean we're, you know, we're not voting on it yet. We don't vote for it until the fall time, if we do end up supporting it and adopting it. Brooke.

MS. MCDAVID: Thank you, Madam Chair. And I just wanted to reiterate to the council members that we hear your frustrations with the regulatory process but also want you to remember that this is the system that we have to work in right now. And I would hate to see someone using a traditional gear type that you've always used to be ticketed or something for a regulation like that's not in our books. So, this is an opportunity to recognize the use of this gear that's always been used. So, I just wanted to bring that up again for you to reconsider if you'd like to submit this proposal. Thank you.

MR. NANENG: Madam Chair. Can I make a comment?

CHAIRPERSON CLEVELAND: Yes, Myron. And then Wassily will be after.

MR. ALEXIE: I just have 11 comment about the eel stick. This Wassily Alexie. Okay. If we do put this eel stick on to the books, my thought was later on, and we'll probably be asked how long our sticks have to be, how many nails it has to have. That will probably

come up later on. I'm pretty sure, that's just my comment and thought.

CHAIRPERSON CLEVELAND: Quyana, Wassily. And Myron.

MR. NANENG: Yeah. Thank you, Madam Chair. It seems like every time there's a subsistence resource that our people are dealing with, that there's got to be more rules and regulations to kind of limit subsistence. But when it gets to commercial and or guided services from hunters that come out to our lands there's very limited effort to enforce the laws that are already in the books. And there's no law enforcement on the side of Fish and Wildlife that can monitor people that are supposed to follow the rules and regulations that are written regarding commercial guided hunt and/or commercial fishing. But if it's for subsistence, it seems like there should be ways to regulate this and keep the people from doing what they may have been practicing and living on for some time immemorial, or even before these rules and regulations are ever put in place. That's just my comment. It just frustrates me that there's always proposals that come up that limit at the end control subsistence uses, and yet all the other uses seem to be done with no enforcement at all. So, that's just my comment.

CHAIRPERSON CLEVELAND: Quyana, Myron. Anyone else? Oh, Wassily.

MR. ALEXIE: I just had one more. I know when I get back home and I mentioned -- if I mentioned this to our community, they're going to ask why. They've been asking a lot of questions about, you know, why are people on the rivers are getting restricted for everything we use for everything we go out and try to subsistence for? Yet the area and commercial Area M commercial fishermen and trawlers are not restricted on what they do out in the ocean. But us on the river are getting hammered with all the restrictions they can find for us. Thank you.

(Pause)

MS. ROGERS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Alissa.

MS. ROGERS: Quyana, Madam Chair. Alissa Rogers, for the record. Did we ever find out from Fish and Game or U.S. Fish and Wildlife Service about, if -- if the language is not in the regulations, is it legal or illegal?

MR. FOLEY: Through the Chair Councilwoman Nadine Rogers. I'm going to do my best to try to get at that answer. And if there are other people that are on the line or in the room, that can further clarify what I'm saying, that's great too. But it's my understanding that a community essentially has a customary and traditional use determination for a resource in a region. And if there is that customary and traditional use there's often means and methods associated with that. And so, as we look at some of the communities along the Kuskokwim and we see in the current federal regulations say for all fish which eels are included in. We then look at the regulations -- or I should say we look at the methods of take for those eels and when we don't see a particular method, that suggests that it's not in there. And for a community that has customary and traditional use determination, by federal regulations, it's defined as illegal. Now what that means for an actual conversation on the ground, between a law enforcement officer and a member of the community that's out there doing what they're doing, I don't know. If there's a member of the law enforcement on the line that would like to contribute, either now or later, that's -- I'd be open to hear that. I don't know what that conversation would look like. But what I can say is if a community has customary and traditional use that's in the books, like, like we see, and that's what it comes down to, right, it's what's on the books. Then by definition, it would be illegal according to federal regulation.

MS. MCDAVID: Through the Chair. Member Rogers, does that clarify what you're asking? So, if it's not in the books, then it's not legal gear type.

MS. ROGERS: That's all.

CHAIRPERSON CLEVELAND: And like I said -- this is Jackie again. Even if we adopt this, we won't vote on it until fall. I know I already said that. And as I said before, it's understandable, all the frustrations that have come up today around this. It does seem like a pattern, yes. In -- for an example with the dip nets, you know, now there's, you know, talks of

further regulating dip nets even, and taking out the string method and only keeping the pole like before, even though the string method was adopted before or something as one of the means. And now -- anyway. So, I do understand where you're coming from with when you do introduce something like I can just hear or see it later on saying the eel sticks now have, you know, a certain measurements or a certain number of nails. But yeah, in the end though it is -- it's not in the books, which technically makes it illegal. So, in my mind, I still think it's safer to -- yeah, to protect our users and make it legal so that in case they were to get cited for using illegal gear. Tiffany.

MS. AGAYAR: Okay. Tiffany here.

(Simultaneous speech)

MR. NANENG: Madam Chair, this is Myron.

CHAIRPERSON CLEVELAND: Tiffany and then Myron.

MS. AGAYAR: Thank you. From how I understand it, instead of our cultural people being told how to fish. We're looking forward to telling them how we fish within our culture during -- in the areas that do fish with an eel stick. Am I understanding that, right?

MS. MCDAVID: Through the Chair. This is Brooke. Tiffany, that's correct. You're basically telling the Federal Subsistence Board, this is a gear type that we have always used to harvest eels. Our cultural anthropologists at OSM will do a full analysis of the historical use patterns. There's lots of documentation. I know Subsistence Division and Fish and Game have done a lot of work studying and working with communities to identify that customary and traditional practice over the years. And so, that would all be written up in an analysis over the summertime. It would come back to you at the fall meeting to vote on. There will also be opportunities this summer and next fall for tribal consultation. So, if you put in this proposal, you could go back and talk about it in your communities. If people don't like it, can [sic] always choose to oppose it at your next meeting. Thank you.

CHAIRPERSON CLEVELAND: Okay, Myron do you still have something to say?

MR. NANENG: Yes, I do. Like I stated before, every time you come up, you know, if it's an unwritten law or it's not written, there's no law against it. And it seems like whatever they're trying -- what they're doing is using customary and traditional as a word that will limit whatever we can do in our future. Right now, we're completely shut down on the Yukon River for salmon fishing, which is customary and traditional for many of our people along the river system and along the coast. Where is there fairness in terms of trying to find ways to get others that do impact the fisheries to be part of the solution? I -- just seems to be working backwards. Where limit the people that use these resources first that for -- that use it for food security, but allow for those that harvest for commercial purposes, let them have unlimited allowances. I talked to one of the Board of Fish members one time, the only concerned that we have is not to lose any of our commercial sales because if we close them, they wouldn't have a commercial way of selling their fish to whoever they might want to. But for those people that live on the river system, let's try and find a way to continue to limit or even restrict their ability to harvest food. Because salmon is not available to them right now. Maybe for about another 3 or 4 years, depending on that 7-year moratorium that they're currently on, you know. And someone to come out from somewhere else to say, we can set the limits, we can make you a criminal for trying to live off the land, the waters, and whatever you survive often [sic]. That's not -- and they say that we have to follow federal laws and regulations, yet subsistence was recognized to be a food security thing for people in the -- in Alaska. So, I'm just -- I wouldn't support this proposal at all. I don't at some point in the future, they'll probably tell you, okay, because it's working too well, let's go ahead and limit it and restrict it. Thank you, Madam Chair.

CHAIRPERSON CLEVELAND: Thanks again, Myron. I think also we have someone online. Stanislaus, do you want to say anything? Stanislaus.

MR. SHEPPARD: Good afternoon, Madam Chair, thank you. Yeah, the only reason the Yukon -- the eel stick was put on regulations -- in the regulation book was one purpose only is when the commercial sale of eels was -- and if they're going to be a eel stick under one of the means of harvesting eels, I would think it would be only for commercial use. That was the main

purpose of getting the eel stick on the books as a tool to harvest eels. Thank you, Madam Chair.

CHAIRPERSON CLEVELAND: Quyana. Anyone else? Tiffany.

MS. AGAYAR: I Google searched 5AAC 39.105(D31). And it's defined under number 31 an eel stick consists of a single straight or bent pole equipped with notches or projecting tines used to take lamprey through the ice. Just a simple sentence. Not very definitive. Thank you.

MS. MCDAVID: And this is Brooke, for the record, just to clarify for folks, that's the state regulation or definition.

CHAIRPERSON CLEVELAND: So maybe we'll just go around one more -- and not go around the room. But I just want to maybe say. Oh, Alissa.

MS. ROGERS: Thank you, Madam Chair, through the Chair. So, I did some asking around in regards to what's legal and what's not legal in the regulation book. It states that if it's not in the book, it's considered illegal for the federal side. And for the state side, is the understanding of the wildlife trooper for state regulations. If it's not listed in the regulations, it's still considered illegal. So, for both state and federal, if it's not in the regulation, it's considered illegal. Thank you, Madam Chair.

CHAIRPERSON CLEVELAND: Okay. I think we've, you know, we've covered this topic quite a bit so far and I don't see or hear anyone wanting to support this as a starting proposal. So maybe we'll come back to it. How does that sound? Something might be -- something we want to think about more. We could either come back to it at the end of the day or tomorrow. Anyway, there seems to be an agreement in the room, so. But Brooke wants to say something before we move on.

MS. MCDAVID: Thank you, Madam Chair. Yeah, I just wanted to let council members know that any time before we adjourn this meeting, you still have an opportunity to submit proposals. So -- and you know, we don't have to beat the dead horse, as they say, about the eel sticks. If that's not something you want to submit, that's fine. We did just want to bring it to your attention. But before we, maybe move on, are there

any other topics for proposals besides the eel stick one that folks would be interested in maybe bringing up for discussion for the Kuskokwim or the Yukon?

MR. ALEXIE: Madam Chair, this Wassily. I'm kind of thinking of how, you know, I'd like to put one proposal out for the Y3 area for the 4-inch nets on the non-salmon tributaries. Like we have one river that's across -- below Russian Mission, they call that Portage slough. We're still restricted to use a 4-inch net in that slough. And that's -- there's no salmon that goes up that river and spawn. It's mainly whitefish, pike, lush fish and sheefish. And usually during the summer season, people try to go out and get some pike or sheefish because that's mainly where they run during the summertime. And it's pretty hard to get the big ones with the little nets, and you get the tiny little pikes or sheefish. So, I'd like to try to get a proposal to lift that restriction from that slough. Thank you.

CHAIRPERSON CLEVELAND: Thank you, Wassily. And Tiffany, were you about to say? No?

MS. AGAYAR: I just I just had a question. It's -- I believe it's recognized in state waters, but I'm not sure if it's recognized in federal waters to be able to for non-salmon species where the salmon do not run and/or spawn. Yeah.

MS. MCDAVID: Through the Chair. Thank you, Tiffany, and thanks Wass for bringing up that question. Maybe that's a suggestion for a proposal we can note down, and we can talk with our managers on the side to see if -- because my understanding is that's something that the managers have the ability to just to do, to allow, without it necessarily having to be a proposal, but there could still be benefit potentially in submitting the proposal to make it, you know, more solid. So, maybe that's something we could get a little clarification on and come back before the end of the meeting and decide if that's something that could be submitted. Does that sound okay?

MR. ALEXIE: That sounds good, thank you.

MS. ROGERS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Alissa.

MS. ROGERS: Thank you, Madam Chair. Through the Chair, Alissa Rogers, for the record. I know in the past (In Native) at Chevak, Hooper Bay and Scammon Bay wanted to be removed from the restrictions. It was maybe 2-3 years ago, they were fighting for -- to be removed from the both federal and state restrictions regarding that trifecta for fishing. So, that might be something you want to put a pin in for a regulation. Did I make myself clear? Okay. It was during the wildlife proposals at the Federal Board meeting and two -- let's see, maybe 2 or 3 years ago.

CHAIRPERSON CLEVELAND: They did not want to be part of the Lower Yukon cluster of rules or something, and they wanted to be either separate subregion or be part of the coastal, if I remember right, but not part of the Lower Yukon regs, because they didn't feel that they were properly part of the Yukon. Does anyone else remember details? And unfortunately, we don't have anyone from Chevak anymore. But we do have Myron. I don't know if you have anything to add on that, Myron.

MR. NANENG: Yes. I know that Fish and Game for quite a long time was trying to get the studies done along the migratory routes of the salmon that go up to the Yukon River. There were other migratory routes I know between the Yukon and the Kuskokwim that also can impact salmon that are going to that, you know. Our people on the -- the only time that our people on the Hooper Bay area and even at Scammon Bay, when we catch any fish if there's a predominant wind from the northwest that blows the Yukon River water along the coast. If it's blowing from the west and or from the south, the salmon go by -- salmon bypasses those communities. So, it's not every year that the people on the Hooper Bay side and Scammon Bay catch any fish when those northwest winds. But when there's northwest winds are not predominant and there's hardly any salmon that goes along the coast. So, and that's -- there are years when they have -- when they don't catch much fish. There are years when they catch them, but not as much as the ones that may be harvested along the Yukon River route, you know, when the salmon were plentiful back then. So, that's why they asked to be removed from being included on the of the Yukon restrictions, because year after year is not the same for salmon to come up into those river systems or along the coast. And like I said, depends on where the wind was predominant from. If it's from the south, they go up north. If it's from the west,

they go further away from the coast and go directly to the Yukon. So, that's why they requested being separated from the Yukon River rules and regulations.

CHAIRPERSON CLEVELAND: Yeah. Now I remember more details. And I can't tell if there might be a response from OSM in a second here. But while we're waiting, Brooke, do you know if this is something that would go through a -- which process would an ask like this go to or through?

MS. MCDAVID: Madam Chair, I think that's a great question. I'm not sure. I think it's something we should discuss again on this on the side, if it's something our management team would need to deal with or if it's a potential proposal that could go to the Board. I mean, right now I'll -- if you open your green fish reg book -- federal regs to page 29, you'll see the Lower Yukon districts and the coastal district. So, it is currently recognized in federal regulations as its own coastal district. But I believe you are correct that the management actions that are taken in-season at this time do apply for the Yukon in that area. So, the best way to go about addressing that, I am not the best person to answer that question, but I'll turn it over to someone else that might know.

MS. ROGERS: Madam Chair.

CHAIRPERSON CLEVELAND: Yes, Alissa.

MS. ROGERS: Thank you. Through the Chair, I can answer that question. It would be put in a proposal on page 34 where it says rural residents of the Yukon River drainage districts one through 6 and communities of Stebbins, Chevak, Hooper Bay and Scammon Bay. We would take that regulation and strike Chevak, Hooper Bay, Scammon Bay and add a new bullet in point in the regulation to address Chevak, Hooper Bay and Scammon as their own unit. Thank you, Madam Chair.

CHAIRPERSON CLEVELAND: Thank you.

MS. MCDAVID: Thank you. Through the Chair, Member Rogers. I think this is something that would be good to confer with before we actually vote on a proposal, just so we make sure we get the language right and the intention correct. Because we wouldn't want to change the customary and traditional use for those folks for the Yukon area. So, we might just need

to think about -- do a strategizing on the side and then come back. But I've noted this down along with the idea from Wassily for us to circle back to later in the meeting. So, thank you.

CHAIRPERSON CLEVELAND: Before we move on, are there any other proposal ideas?

(No response)

Okay. Hearing none. So, if we could be done by 2:30, for our 2:30 presentation. Right now, we can go for will b: Call for rural/nonrural determination proposals by OSM anthropology, on page 11.

(Pause)

And we're just waiting for the presenter.

(Pause)

MS. WILLIAMS: Good afternoon, Madam Chair. And members of the Council. I'm Liz Williams, the anthropologist from OSM. And we're here to give you a brief update about another open call for proposals. And it's for rural and non-rural determinations in your area. And I don't think you have any, but because it is an open season for asking about that or trying to change it with a proposal, we wanted to let you know. And so, some of those rural and non-rural places are Anchorage Fairbanks, Valdez and a few places on the Kenai Peninsula actually are rural. So, it's not unheard of that there are some there too. So, it's the process for formally changing in federal regulation, a community status from non-rural to rural or from rural to non-rural. And so, if a community gets determined non-rural, it means they're no longer federally qualified subsistence users. Any proposals submitted this year will be acted on by the Board in 2029. And that sounds like a long time, but the research required to do a proposal, to understand if a community has become non-rural or rural takes a long time. There's a lot of public input and process. So, this happens every other fish cycle. So, it'll be again in 4 years. And the call for proposals ends on April 3rd, 2026. And there's a flyer inside of your papers on how to do this. This is an action item, but again, it's probably not super relevant to your area but everything always changes. And so, that's why we're letting you know. Just so you have it in the back of

your mind, if something like that should ever come up here. And Brooke, do you -- can you tell people where it is in their materials, please? And that's the end of this presentation. And we could talk about it more if you'd like.

MS. MCDAVID: Yes. Council members, it's on page 11. It's included in the call for fisheries proposals, but it's really kind of hidden in there. And we wanted to make sure we drew attention to it so you were aware that it was part of the larger call for the fisheries proposals. And like Liz said it only happens every 4 years with every other fisheries call for proposal.

(Pause)

This is Brooke again for the record. This really is just informational. We didn't anticipate that you all would want to submit a proposal for your area because you're so rural. But just letting you know about the process so that you, like I said, are aware. There was a lot of discussion at our last meeting when we did the Secretarial Review about rural/non-rural determinations and the importance of keeping this area considered rural, so. If there's no questions or anything, that's all for this topic.

CHAIRPERSON CLEVELAND: Does anyone have questions or comments on this topic?

(No response)

Again, it was informational and thank you for the information. It -- we can now move on to see Review and approve FY2025 Annual Report, on page 13 and 14. Wait, before that, Myron, were you wanting to say something?

MR. NANENG: Yeah, I just wanted to make a comment regarding that rural and non-rural proposal that may be coming up. I know that the Migratory Bird Treaty has that language where rural areas are excluded from being able to hunt migratory birds and we don't have any rural -- or non-rural designation here in YK Delta. So, I think we just need to say that the -- if there's a proposal that the language that's being used in migratory bird treaty be incorporated in that proposal. So, that's my comment.

CHAIRPERSON CLEVELAND: Brooke.

MS. MCDAVID: This is Brooke. Thank you, Myron. Just to respond. Yeah, I think that's important for people to understand that that's why it's so important to be designated as rural. So, unless for some crazy reason you wanted to change that and you didn't want to be eligible for federal subsistence anymore, I would not recommend submitting any proposals to change the status for your area.

CHAIRPERSON CLEVELAND: Okay. So, it is almost 2:30. So, we're going to pause and we'll come back to c: Review and Approve FY2025 Annual Report by the coordinator. After hearing from, Lisa Stuby, on pike and beaver prison -- oh wait, so, overview of Pike Life History. Lisa, you have the floor. Thanks.

MS. STUBY: Good afternoon, everyone. Yeah, I was asked to just give a little information on Northern pike in Interior Alaska. I'm with the Division of Sportfish based out of Fairbanks. And at division of Sportfish -- reason why I'm giving this presentation is we are more likely to do research on resident species like Northern pike. I'm not the expert, but I'm going to just give you some basic -- this is what pike are this is, you know, their life history and my presentation will be brief and just kind of give basic information. And a lot of my information has come from our website. So, let me go ahead, put together a little PowerPoint presentation and okay, present in Teams, is it? Okay. It's been a little while since I've done this.

MS. MCDAVID: Lisa, this is Brooke. I might need to add you, sorry, in this set. Oh, no. It's showing. Good job. Okay. We're good.

MS. STUBY: It is showing.

MS. MCDAVID: Yes, ma'am.

MS. STUBY: Okay, I don't see but anyway let me go ahead and I'll get it -- oh, hold on here. Throw that out of the way. Oh, okay. Can you all see that?

MS. MCDAVID: Yes. It's nice and clear. Thank you.

MS. STUBY: Okay, great. And let me move this little box out of the way so I can kind of see what's going on. Okay. Oh, I'm trying to advance. Okay. It's not advancing, is it? Oh, let me go down here and try this. Okay. Can you all see that in advance? Brooke, do you see it?

(Simultaneous speech)

UNIDENTIFIED: She's said delay, we can see it.

CHAIRPERSON CLEVELAND: Yes, is it a photo?

MS. STUBY: Oh, you can see it. Okay. Yeah. It's a photo of a man holding a pike.

CHAIRPERSON CLEVELAND: Yes, we see it. Thanks.

MS. STUBY: Oh, okay. Northern pike have an elongated body and head and a broad, flat snout shaped somewhat like a duckbill. They tend to be greenish and brownish in color with spots and vary depending upon the darkness of their habitat. So, if you get a pike from, let's say, some real murky water, it may actually be darker than getting pike from an area that that has a lot clearer water. And as we all know, pike are armed with many sharp teeth. Now northern pike typically, traditionally ranged, and I'm just going to -- kind of look at the ones that the red hash marks from Alaska's Interior to the Arctic coast, from the Canadian border to the Seward Peninsula and southwest to the Bristol Bay drainages. And there's also kind of a small remnant population near Yakutat. Now I'm just showing the hash marks. I'll get back to those red solid ones. I'm just talking about the traditional range. Northern pike prefer vegetated, low flow, shallow habitats where they can hide and ambush their prey. Here's setting up hoop trap for a project in Minto Flats.

Because ice covered shallow lakes like Minto Flats become depleted of oxygen during the winter, most northern pike overwinter in the deep, slow waters of large rivers like this here's the Chatanika. So, northern pike will spawn in the springtime immediately after the ice melts, that's when they spawn. Usually in April to early May. And the juvenile fish will hatch out in about a month. Movement during the summer is localized

between warm, shallow feeding areas. Young northern pike feed on small crustaceans and insects. Adult northern pike are top level predators in aquatic food chains and generally eat other fishes including their own young. As a matter of fact, one of my favorite lures for catching northern Pike is a baby pike shad. Large adults can eat larger prey, including voles, shrews, frogs, and even ducklings. Here's a -- from a project got -- cut out open the stomach and there was a baby muskrat in there. Large adults can eat larger prey, including -- oh, I think I said that. Large northern pike can be over 20 years of age. There are a slow, growing long-lived fish. The state sport fishing record is a 38-pound fish caught on the Innoko River many years ago. Now northern pike do have predators besides themselves, such as otters, birds of prey like these eagles, burbot and humans.

Where northern pike naturally occur in Alaska, they are highly valued as a subsistence resource. This is not far from Minto Village and of course as a sportfishing resource there. They're quite popular and they are quite good eating. Now, in their Native range, which includes the Yukon River, northern pike are simply another member of the fish community living in a balanced ecosystem with other species. However, northern pike do not naturally occur south and east of the Alaska range. Those are the solid red areas. Those -- in these areas salmon and other fish have evolved in the absence of pike and are far more vulnerable to pike predation. Now, remember I had mentioned that pike preferred vegetated, low flow, shallow habitats where they can hide and ambush prey. Areas like these are plentiful throughout Southcentral and pike tend to thrive in these locations, often to the detriment of Native species. The pike that you hear about, you know, kind of going, going back to the -- oops, going back to those red where they were illegally introduced by people. And they're invasive and that's not a good thing. And by being -- when they say something's invasive, it means they do not naturally occur and can negatively affect the environment, the economy and other recreational activities.

Now, I'm going to just show you some examples of projects we have conducted on northern pike using mark recapture techniques. You know, where we capture the pike we put out Floyd tags. We tag as many as we can, let them go let them mix for about 2 weeks and then look at the proportion of tagged fish to

untagged fish to get a population estimate. And also, we've done projects using radio telemetry techniques where we put out radio transmitters into pike and then track them with ground based stationary tracking station and doing aerial tracking flights like the antenna you see on that airplane. So anyway, here are a few -- we've never done any pike work in the Yukon River delta, the closest we've come have been some of these projects like the Kaiyuh Flats. And with this, you know, this took place quite a while ago, 1994 to 1996, about 30 years ago-ish [sic]. And between July 90th, 1994-1996, both Fish and Game and the United States Fish and Wildlife Service conducted a joint study to identify overwintering areas using the radio telemetry techniques, and also look at length and age compositions too. There was just some concern about sport fishing pressure on the northern pike and wanted to make sure that the population was still stable and still viable. The project goal was to provide information on the seasonal distributions and movements in the Kaiyuh Flats and identify overwintering areas.

A little more recent, this is probably the furthest down river closest that we've come to the flats is there was a stock assessment project on northern pike inhabiting the Innoko River during 2002-2004. The project used radio telemetry techniques to describe seasonal movements. Because with radio telemetry, you know, you fly winter, spring, summer and fall. And you can look at movements and geographic area too, as well as age and size composition. And there was also a separate project that was conducted by the Division of Subsistence during this time period that -- to describe the geographic distribution of subsistence fishing for northern pike during winter and summer as a resource pretty much all year round and gathered information on the size and sex composition of the winter subsistence catch as well.

2005, the Nowitna River, and a radio telemetry study was initiated. The whole goal was to get an understanding the seasonal movements of our 3-year period. And found that the pike can travel up to 100 miles, some fish did not. I can say I've done most of my radio telemetry work on resident species, and they are completely different from salmon and yeah, all seem to have personalities. Some are movers, some are not. And anyway, the results show that the northern pike used a very large portion of the Nowitna River drainage during the year and should be considered as a single stock for

management purposes. Now this is nowhere near the Delta, but for us Minto Flats supports the largest sport fishery of northern pike here in the interior, and it's also substantial subsistence fishery for the residents of Minto Village, and also too, for subsistence fishers to outside of Minto as well. Just because of its proximity to, you know, to the big population center of Fairbanks. And for this project, which is ongoing this actually happened last year, they identified distribution abundance and length, composition of northern pike. The large northern pike, about 24 inches, and the overwintering area on the Chatanika River. If you go back to an earlier photograph, I showed some buddy fishing for pike during the winter. During the winter though, they'll move out of this area here, and move into the Chatanika River because this will kind of freeze solid and oxygen will be the -- it will be depleted.

And before I take questions I did read the letter that was submitted asking some questions about whether or not we've ever conducted a feeding studies to kind of quantify pike -- northern Pike predation on salmon, on juvenile salmon in particular. And no, we've never done that, that there has been some work done at the university. And I know Brooke, James (indiscernible), our regional supervisor forward some articles onto you, and you can send those out or else I can resend them to you too, that you can distribute. I did talk to our northern pike expert here, we all seem to have our fish, and I talked to our regional research supervisor, and you know, for right now you know, we're conducting projects, we're at least -- last year, we definitely conducted a lot of projects kind of getting ready for the Board of Fish because there was a few proposals in for Minto, Harding Lake, for pike fisheries, Volkmar Lake. But definitely I would say any possible future work, it is being discussed. It is on the radar. But we haven't conducted any projects as of yet. Unfortunately we are limited with staff and funding. Okay, any questions?

CHAIRPERSON CLEVELAND: Are there any questions, (In Native)? Yes, Francis. Oh, never mind, he's writing. But if no one else has a question, I guess I'll mention -- this is Jackie Cleveland. And I'll mention in my area in Quinhagak we have -- we live along the Kanektok River, and for the past at least 15 to 20 years, pike have been introduced to our river, which is a freshwater lake fed river about 90 miles. We're also -- we neighbor with the Eek River north of us and then

the Arolik River south of us. But we've, yeah, they've been introduced to our watershed. And since then, we do notice a difference in our trout and char population not as being as much [sic]. And some points they're even half and half when you put the net in the water for trout.

MS. STUBY: This is the Kanektok River?

CHAIRPERSON CLEVELAND: Yes. And so, I know that.....

(Simultaneous speech)

MS. STUBY: Oh, I'm writing this down.

CHAIRPERSON CLEVELAND: Oh, yeah. So, I've been told that pike and salmon can live harmoniously, but maybe not so much pike and trout/char. Is that true?

MS. STUBY: I'm afraid I can't answer that.

(Simultaneous speech)

CHAIRPERSON CLEVELAND: Okay, so you've never in your history dealt with a river that went through this same thing?

MS. STUBY: You mean where pike were introduced? No, no.

CHAIRPERSON CLEVELAND: Okay.

MS. STUBY: Again, according to the map they oops, I hear a lot of feedback. They should be natural, but I mean, you know, I really can't speak to the Kanektok. But I am writing this down and I will send an email to our regional research supervisor just to put this on the radar. But yeah, I'm afraid -- I -- I've -- the only encounter I have of real negative is what's happening in South Central when people have introduced them. But I really can't speak for the Kanektok River or the difference with trout and char. I'm afraid I can't. But I am taking notes. I am taking notes.

CHAIRPERSON CLEVELAND: Thank you.

MS. STUBY: Oh, did you say the Eek? Did you say the Eek also had him introduced?

CHAIRPERSON CLEVELAND: No. Well, Eek is north of us, and I mentioned them because they've always had pike in their river.

MS. STUBY: Okay.

CHAIRPERSON CLEVELAND: So, I mean, there's speculation of maybe during a flood and the connecting creeks and such maybe, they were introduced that way, or through I don't know the many users of our river that come in and out.

MS. STUBY: Okay.

CHAIRPERSON CLEVELAND: And so far, I guess that as a community.

(Simultaneous speech)

MS. STUBY: (Indiscernible), I don't know.

CHAIRPERSON CLEVELAND: As a community you know, we've discussed things like fishing them out in the oxbows and things like that, but. Because they seem to be hanging out in the spawning areas and oxbows where it's calmer water, not so much current.

MS. STUBY: Right. Yeah. No, they definitely do like the calm water.

CHAIRPERSON CLEVELAND: So yeah, at least we kind of know where they hang out and people do, you know, want to fish them out and try to save our trout. But we've never really been, you know, given recommendations or suggestions on how to do that yet from the biological standpoint, I guess. Thank you.

MR. PRINCE: Madam Chair.

CHAIRPERSON CLEVELAND: After Stanislaus and then we'll go to Francis. Stan. Stanislaus.

MR. SHEPPARD: Thank you, Madam Chair. Yes, I have a question. Here on the Lower Yukon Mountain Village, starting about this time of the year, till break up, there's a lot of pike on the north side. We got

community members down here in front of town ice fishing on the -- right here in front of town, where 10-15 years go -- they never ice fish for pike fish. We used to always have to go to Kusilvak or back here in our clearwater or across there one of those big lakes. So, they're moving out here in the Yukon, and their sizes are getting bigger and bigger.

MS. STUBY: Wow.

MR. SHEPPARD: I had mentioned during one of the meetings last year, what was the liver, what they call it, it was high lead content.

MS. STUBY: Oh, I think -- oh, my goodness, mercury.

MR. SHEPPARD: Mercury, yeah.

MS. STUBY: Mercury, yeah.

MR. TULIK: Yeah. Would it -- excuse me. Would it be possible sometime toward the end of this month or next month, when, you know, down here in Kusilvak, it's about hour snowmachine drive cross-country to Black River. Would there be -- would you guys be able to come out and take some samples, because people from Chevak, Hooper Bay, Scammon Bay, Nunam Iqua Alakanuk, Emmo, Mountain Village. A total of 7 to 9 villages go down there, gather and just for that northern pike so would -- and there's been no nobody taking samples or study on what lead content is on the river down there, even out here in the Yukon. Thank you very much.

MS. STUBY: Yeah. Thank you for that question. There was a study that we had conducted. And, and on the Kuskokwim near Red Devil and they were sampling tissue for mercury. Thing about pike, they're a top level predator. So, they kind of what they call bioaccumulate. So, they'll eat other predators and so, they tend to have higher mercury levels than other fish. And the bigger pike will have probably higher mercury levels than smaller pike. I'll -- I think that they collected samples and sent them to D.E.C., I believe it was, and they came back with a recommendation for like pregnant women, etc. about how much you know about how much pike is safe to eat because of mercury levels. I'll try to find that, and I'll go ahead and send it to Brooke, and Brooke, I guess you can, you can forward the

information on out to the RAC members.

MS. MCDAVID: Certainly, Lisa. Thank you.

MS. STUBY Yeah. So, there has been studies done. And right now, I think our summer is pretty well planned out we're not going to -- and I think, yeah, we don't really have any -- again, I'm writing this all down. So, you know, perhaps in the future and I'll get this on everybody's radar, that there is a request for maybe repeating this lower river that's been done up near Red Devil. So, I'm getting this -- taking notes and getting this on the radar. But in the meantime, I'll go ahead and I'll find that information for it to Brooke and then she can forward it on to you. And thank you again for the question.

MR. SHEPPARD: You're welcome.

CHAIRPERSON CLEVELAND: Thank you both. And Francis.

MR. PRINCE: Madam Chair, through the Chair. This is Francis Prince, and I'm from Kotlik. A question for Lisa is, I live out on the Lower Yukon at the north mouth and I was wondering, is can there be more studies on the Lower Yukon for the pike fish from -- for or all the drainages, including the smaller sloughs? Because what I have experienced growing up in Kotlik is I have seen the muskrat decline since I was in high school, which was almost 20 years ago and haven't seen one since then. And, and there have been a lot of people in Kotlik that's been catching a lot of pike in the recent year events. And when I was younger, this didn't really happen that much. And also, I had friends caught as much as 80 pike in a day and that's within just a couple hours. And just recently we had an elder fish over the weekend and she caught 60 pike in the weekend.

MS. STUBY: Wow. Well, like I said, I'm definitely going to forward this on to the leadership.

MR. PRINCE: Oh, my question was can there be more studies on the Lower Yukon for the pike?

MS. STUBY: Yeah, like I said, you know I'm going to -- I'm taking notes and I'm going to forward this on to our regional research supervisor and our management supervisor and our regional supervisor. So,

I'm going to put this on the radar.

MR. PRINCE: Thank you, Lisa. And also for Brooke, have you got my letter to let her -- Lisa read my letter that I sent?

MS. STUBY: I did.

MR. PRINCE: Okay, cool. Thank you.

MS. STUBY: And I'll forward that one on too.

(Pause)

CHAIRPERSON CLEVELAND: Anyone else on the topic of pike?

(No response)

Thank you so much, Lisa. Great presentation and thanks for answering our questions and responding to our comments.

MS. STUBY: As best as I could. Like I said for me, it's a lot of taking notes and passing the information on. It was nice talking to everyone.

CHAIRPERSON CLEVELAND: Yeah, well, appreciate it. And Brooke has maybe something for you. Hold on.

MS. MCDAVID: Thank you, Madam Chair. It's not for Lisa necessarily, but Will Samuel did put in the chat that he believes that Alaska Department of Environmental Conservation might do sample testing. If you're able to send in frozen samples, either the fillet or the liver, and this is in response to Stanislaus, your question about maybe the mercury or lead contaminants that could be in fish. And so, we might be able to follow up after the meeting or later in the meeting to get some information about who to go through for that. So, thanks for sharing that, Will.

MR. SHEPPARD: Thank you, Brooke. As long as I get the information to where to send it, I'll try to do my best to take some samples and send them in after I freeze them. Thank you.

CHAIRPERSON CLEVELAND: Quyana (In Native), Stan. And thanks again, Lisa. One second.

MS. MCDAVID: Lisa, this is Brooke. If you wouldn't mind, you could just stop sharing your screen.

MS. STUBY: Oh, I did, I actually got out of it. Oh, stop sharing. There we go.

MS. MCDAVID: There you go. Thank you.

CHAIRPERSON CLEVELAND: Okay. So, number 2, under the Pike Life History is, Beaver-Fish Interactions. And that presentation will be by Will Samuel. So, Will if you're on, you have the floor.

MR. SAMUEL: Yeah. Can you see me, hear me?

CHAIRPERSON CLEVELAND: Yes.

MR. SAMUEL: Let me get my presentation pulled up. Can you guys see that?

CHAIRPERSON CLEVELAND: Yes, we can.

MR. SAMUEL: Okay, cool. Well, nice to meet everybody, at least virtually. Thanks for having me today. My name is Will Samuel. I'm a research professional at the University of Alaska Fairbanks. I grew up here in Fairbanks and have spent all of my life in the outdoors hunting and fishing and as a backcountry guide and now a scientist for the past 5 or 6 years. And so, a lot of my work has focused on beaver and fish interactions. And so, it sounded like there was some interest from your region to kind of hear what research was going on about that and maybe what research might be going on in the future. So, I'm going to just present and give kind of an overview of what I have been working on and what I'm kind of working on in the future. So, as a really brief outline, my presentation is a little bit long. Hopefully, I don't talk your ears off, but I'll talk about some of my research that is mostly complete at this point. A lot of that is focusing on arctic grayling here in near Fairbanks where I'm based. Arctic grayling, beavers and wildfire actually. And then kind of the main focus of today will be a statewide literature review that I'm currently working on. So, this is where we're trying to summarize all the different

studies from across the state and kind of compare if there's regional differences or if certain species are especially affected by beavers, and kind of what that looks like. And then I'll kind of wrap it up with some comparisons across other places in North America and some conclusions that we might want to think about moving forward.

So, if there's beavers in your area, you've probably encountered them and seen the kind of work that they do. But beavers are often referred to as ecosystem engineers. And it's because they engineer and build these crazy dam structures that totally change the landscape. And so, beavers, when they dam a stream or when they dam an oxbow lake, they flood the riparian vegetation all around it and it completely alters the habitat and kind of starts to reshape what the world looks like in that area. And that can have a lot of effects on different animals, things like the fish in the waterway, which is mostly what I focus on, but also the terrestrial animals, the moose and all the critters that run around near the beaver ponds. It can affect the vegetation around those areas. Beavers in Alaska, kind of unique to our region is permafrost. That doesn't exist through a lot of the rest of North America, where other beaver research is conducted. So, beavers in Alaska can have a lot of interactions with permafrost and kind of change the environment in that way. And they also interact with disturbance processes, things like wildfire and floods. Beavers are affected by those, and they also can change how wildfires and floods affect us and the ecosystem. And so, it's kind of -- my work is kind of focused on the interactions of all of these things, how they affect each other, and then how that trickles down to people who, you know, use the resources, the fisheries and the lands to -- for their livelihoods.

And so, we'll open up with some research about my Master's thesis. This was 2 and a half or 3 years of my life studying in the Fairbanks area. And when I originally signed on to do this kind of research, I was -- we were supposed to be looking at wildfire effects on fish, wildfire effects on arctic grayling, and seeing how the increasing wildfires were affecting arctic grayling in our area. And as I was out in the field and looking at these different sites and seeing all these different wildfires and trying to plan my research, we kept coming across these beaver dams and these beaver structures all over the place. And so, here's just a couple examples. Over here on the left is

a old beaver pond that's been blown out, but there was a wildfire that tore right through it. This was like a week after the wildfire went out. It was really cool to get up in that area in the Salcha River. Here on the lower right is a big, huge beaver pond that has drained right after a wildfire. So, the wildfire went through, you can see kind of up on the hillside where it burned, and then that beaver pond completely drained. It's the size of like a football field, it's huge. And on the top right, you can see -- I'm actually in that photo, I'm standing in a beaver pond sampling fish arctic grayling. And a wildfire started right up on the hill. And we had to evacuate in order to, you know, not get burned up. And so, seeing that those wildfires and beavers interacted so much to affect fish habitat, really inspired me to integrate that into my thesis work.

And so, I'll try to summarize this kind of quickly. For the first chapter of my thesis, there's 2 studies, first and 2nd chapter. And the first chapter or study that we did, we wanted to use kind of a remote sensing method. So, we looked at satellite imagery and other type of data from satellites to map what the beaver distribution was in the area around Fairbanks. So, 5 big river systems, the Chatanika, Chena, Salcha, Goodpaster River and Shaw Creek. And so, we mapped this area, it's about 21,000 square kilometers, pretty large area. And we mapped beavers all throughout that using satellite imagery. So, you can see an example of a beaver pond here. We ended up locating about 850 beaver ponds throughout the study area. And so, there's definitely a lot of beaver activity throughout these river basins.

And then what I wanted to do was see what was driving that beaver distribution in Interior Alaska. And so, we did some statistical modeling to basically see whether it was wildfire, whether it was the stream hydrology, like how wide the stream is, how steep the stream is, or how much water is flowing through it, or whether it's the vegetation in the area. Which of those kind of explained the distribution of beavers in Interior Alaska. And so, to cut a long story short, 2 years of research, we basically found that wildfire was the biggest predictor by far of beaver distribution. So, if you look at this map, you can see the red polygons. Those are historical wildfires that occurred over the past couple decades. And each of those black points is a beaver pond that we found in our survey across these river basins. And if you just look at the map, you can see that most of the beaver ponds are

concentrated in those historical burned polygons or around them adjacent to those wildfires. And so, it seems like wildfire is really driving the distribution, at least in my study area near Fairbanks. That explained about 3 quarters of the variation in beaver distribution. And then, we were also able to include some of those river parameters, things like how steep the gradient is of the stream, how wide it is, how wide the valley bottom is, how much the river winds back and forth, its sinuosity. And when we included some of those factors, which that kind of just restricts where the beavers can build dams. We explained almost all of the variation in beaver distribution in Interior Alaska. So, it was really cool to be able to describe why the beavers are where they are. And it's mostly a result of wildfires and the wildfires that come through and reset the vegetation to the early succession, the willows and the birch and the alder trees. Those are the ideal beaver food and that's just kind of causes these populations to blow up in these in these areas.

And so, as a fish biologist doing all of this satellite remote sensing work, I wanted to relate this back to fish. And so, we took that beaver distribution that we observed, those surveys that we did with satellite imagery and we wanted to model how that beaver distribution would affect the fish distribution. So, we compared a scenario where there's no beavers on the landscape. And that was kind of like our control scenario. And then we control -- and then we tested some scenarios where we overlaid the actual beaver distribution that we surveyed, and we looked at that under different flow conditions. And so, you can see this blue in the top right, that's, you know, that's where the fish can access when there's no beavers. This green in the top right is where the fish can access with beavers, but in a high flow situation. And then you can see as the flows decrease in those orange and red scenarios on the bottom that the beavers start to really restrict arctic grayling habitat. And so, what we generally expected to see and what we saw as a result of our models was a trend that looked something like this, where the fish habitat was totally available when there's no beavers in these tributary streams. And then as the beaver density increases, the fish habitat availability decreases. And that that becomes more and more drastic during low water conditions.

And so, this is kind of you know, it's kind of -- it's all synthetic modeling. So, you have to

take it with a little bit of a grain of salt. But what we were looking for was general trends. What -- how does in general, during high and low flows and high and low beaver densities, how do these fish and beavers interact? And so, what we found was that in some of these tributary streams, these small streams that you could wade through, they're really important arctic grayling, the grayling like to get as far up those streams as possible to feed for the whole summer. That's prime habitat for them. And in these little tributary streams, some of them with really high beaver density, they lost 2/3 of their fish habitat because the beaver dams blocked fish from accessing those. So, during those low flow scenarios, the beavers restricted the fish habitat pretty significantly. When you kind of take a step back and look at a basin wide level, like the Chena River or the Chatanika River, these are like a large river that you can jetboat up around and they support, you know, chinook and chum salmon. And when you take a step back, those low water conditions still a really significant amount of that habitat is taken up by beavers. So, about 1/5 of it 20% give or take in some of these basins, is made unavailable for arctic grayling by beavers, and so it's a pretty significant chunk of the habitat during low water conditions at least that's blocked by beavers.

And so, you can kind of take another step back and look at the whole landscape. And you start to see that this relationship is moderated a little bit. You know, I don't think the beavers are necessarily an existential threat to grayling. Our beaver populations are robust, our grayling populations are robust. There's not a lot of harvest of either of those really. And so, it's more we're just observing the patterns rather than saying this is an urgent concern that needs to be addressed, but we're just trying to see what's going on out there. And so, this was really interesting and exciting work. One of the things that was really it really stuck out to us as we were doing this work is that it's not just the density, the number of beaver dams in the study area or in these tributary streams but it's also the position of them which matters a lot for fish habitat. So, beaver dams high up in a tributary like you can see up here on the left way, way up high in the headwaters, that doesn't cut off as much fish habitat during the low water. And the fish can still access the stream downstream of those and use all of that habitat. But what we did see that was a really significant barrier to fish was beaver dams when they're

low down in the watershed, right near the confluence of the river. Here's just an example on the left you can see my technician who's taking a lunch break on that one, it's huge, I mean, it's 10 feet tall and there's no way the fish are getting past there. Those are the problems that block an entire stream from fish access, at least for arctic grayling.

And so, we wanted to go out and see if all of this remote sensing work and this modeling work if it actually aligned with what we were seeing on the ground. So, my 2nd chapter of my thesis, the second study that I did was a field-based study. We wanted to go out and sample fish and see what the distributions looked like. And so, here we did -- we use traditional fish sampling methods. So, angling and electrofishing like you can see in the video. And we also used environmental DNA, which is basically filtering the water to collect little particles of fish DNA. And then we can tell which fish are present in the area and sometimes even how many fish were in that area. And so, to cut a really long story short, we sampled 6 sites and about half of those sites had fish passage. And about half of them had no fish passage at all. And so, here's an example of the sites that had no fish passage. These are really large dams. They're pretty impenetrable. Even during high flows, these dams did not have water flowing through them that the fish could access upstream. These were really small streams, so the beavers are able to dam them easier. And the biggest thing is that there's no hydrological linkages here. There's very little water flowing over the top of the dam or through holes in the dam that the fish can sneak and wiggle through.

Now, on the other hand, the other half of my sites, those had a lot of hydrological linkages. They had a lot of water flowing over the top and water flowing through the dam. Here's just some examples. And the fish are able to, you know, they can jump a foot or 2. They can kind of traverse these at high water conditions. And so, because these flows on these larger streams were coming up enough a couple times throughout the summer, the fish were able to navigate these dams and actually occupy some of the beaver ponds and some of the upstream habitat. So, it really depends on the individual dam and the individual stream, whether the fish have trouble passing it or not. And then specifically, yeah, like where it's located in the drainage. Is it at the very bottom of the stream or is it high up? And it just depends on how much quality

habitat it's potentially blocking.

So, our field observations in terms of the environmental DNA generally aligned with what we modeled. So, the eDNA concentration as a proxy for fish abundance. So, our estimates of fish abundance across 54 tributaries in Interior Alaska followed a similar trend to what we predicted with our models. So, in general, as beaver density increases, the fish abundance in those individual tributary streams decreases. And so, it's basically just that the beavers are blocking the fish from moving upstream. And so, there's just less habitat overall. Not that it's necessarily limited across the entire Interior Alaska, but in these specific tributaries, beavers are really substantially changing the habitat. And that aligns with some other research from the Lower 48 as well.

So, after I finished my master's research and graduated, I wanted to kind of continue this theme of beaver and fire research. And one of the things that really stuck out to me was some research that came out of the Lower 48. So, kind of, in arid desert ecosystems like Nevada and Utah and California. Which showed that it's not just that the wildfires affect beaver populations by changing the vegetation, but actually beavers can also affect wildfires. So, this example here shows that the beavers by damming streams and flooding the area around them, at least in desert ecosystems, really significantly protects those streams from wildfires. And so, I wanted to investigate if those same trends followed up here in Alaska, in the boreal ecosystem, where we have a different environment, you know, there's more moisture, that we have moss on the ground. And so, I wanted to see if those trends would follow up here in Alaska. And so, we're working on a study now where we surveyed beaver ponds in 10 wildfires across Alaska. And we're basically comparing beaver ponds to control sites with no beaver ponds. And looking at burn severity and looking at vegetation greenness, the health of the vegetation around the river and beaver ponds and the wetness, how much water is actually held on the landscape. And we're looking at that before and after the wildfires, and basically to see if the beavers are having an effect. And so, this is -- this study is still in work. We're kind of re-bringing in some collaborators and working on the analysis right now. But what we're seeing mostly is that the valley bottoms are already really resilient to wildfires in Alaska. They're already really wet. They have a lot of vegetation which

helps keep things wet. Any moss or permafrost in the bottom of a valley bottom. They already don't burn very frequently. And what tends to burn in Alaska is the hill slopes, the black spruce, and the big white spruce stands that are up on the hill slopes and the tops of mountains. But the valley bottoms, these tributary streams are pretty wet down in the bottom. And so, regardless of whether beavers are there or not, it seems like those are pretty resilient to wildfires. And so, this is still kind of in progress and working on that. But I wanted to mention that.

Okay, so now kind of the meat of what I'm working on currently is a literature review across Alaska. So, for this, our goal is basically to survey all of the documents, all of the scientific publications, all of the agency reports, all of the Master's thesis and PhD dissertations from the universities, any unpublished data that's just sitting on somebody's on somebody's shelf. And we're also including things like subsistence surveys with traditional ecological knowledge and quotes from local experts and things like that, to kind of get a full picture of what the beaver and fish relationships look like across the state of Alaska. And so, this is a really cool project. There has been work like this done in other parts of the world in the Lower 48, the Pacific Northwest. But it hasn't really been done in Alaska and there's not very much information pulled together. So, that's what I'm kind of focusing on right now.

And we were really surprised. We've been working on this and we've been able to locate 51 different documents that mention beaver and fish interactions. And a lot of them are actual full studies that study beaver and fish. And so, this is a lot more than I actually expected to find. We expected like maybe 10 or 15 across the whole state. And so, we're really excited to have all this extra information to kind of shift through. And that's what I'll be kind of talking about today.

And when you throw it up on a map, this is what that kind of looks like. So, I'm working on breaking these out by regions Southeast Alaska, Southcentral Alaska, Southwest Alaska, the Interior or Yukon Basin and then the Arctic. And you can see plotted out on this map, all these individual points. Each one of those is an individual study or agency report or subsistence survey or something that mentions beaver and

fish and talks about those. And so, all the red squares, those are all reports that generally mentioned a negative effect on fish. All of the green triangles are reports or studies that generally showed positive effects on fish. And then there's a couple that had, you know, basically no effect on fish. And so, we're working on digging into this.

This is still preliminary at this point, but it's really interesting to see kind of how these trends fall out across the different regions. One of the things to note that was really interesting about all of the -- all of these different documents that we found is almost universally, it seemed like at least the perception was that beaver populations are pretty much increasing across the whole state. And so, every region that we've found a document for so far, all of them mention increases in beavers. And so, some of that, a lot of that could be less trapping. People just don't go to get out and trap as much anymore. Fur prices are lower, so it doesn't really make sense economically to do it. And so, that could be a big part of it. It could also be climatic things like just warming ecosystems and vegetation changes. It could be wildfires, more wildfires, like I mentioned earlier. It could be different kind of flow regimes or different types of winters. There's a lot of different things that could affect these beaver populations, but it seems like almost universally at least the perception is that people perceive beavers to be increasing across the whole state so that's really interesting. Here's just what the research looks like over time. You can see that most of the research interest has happened in the past couple decades. That's pretty typical for most research. It's increased a lot over time. But we do have about a 40- or 45-year span from the 1980s, there was cool studies on this. So, we do have a pretty long time series that we can look at some of these changes and trends over time.

We wanted to break this information out by data type. So. some of this data is empirical, like a actual scientific study that's been published or a Master's thesis that's, you know, a student conducted research like I did on fire and grayling and beaver. Some of these reports that we found were just management reports or actions that they took, it was like a Fish and Game or U.S. fish and Wildlife manager or a tribe that released a report that said, we went out and removed these beaver dams and trapped these beavers in order to

allow fish passage or something along those lines. There was kind of a variety there. And then we also separated out traditional ecological knowledge. And so, that was mostly subsistence surveys, but also some quotes and things like that. And there was -- in Southeast Alaska, there was very little information. And then some of the other regions had more TEK available and kind of long-term knowledge available on that front. One of the things that was interesting is that when you look at those different data types, the traditional ecological knowledge, how people subsistence users out on the land perceive beavers is almost completely negative, at least for what we found in the written literature. Obviously, not every person is going to think the same, but as far as what's recorded and written down in these subsistence surveys, the perceptions of beavers are very negative. People are concerned about beavers blocking fish, giving fish disease. Beavers don't eat fish, but some people are concerned about beavers eating fish. They're concerned about them changing the spawning habitat. There's all sorts of different concerns mentioned about beavers. And very few people mentioned positive things. Overall management actions followed kind of a similar trend. Most of the concerns are about fish passage. So, this is managers like Fish and Game or U.S. Fish and Wildlife or tribes, either writing a report about fish passage issues because of beavers or sometimes even like removing beaver dams to allow for fish passage.

And then when you actually look at the empirical data, the scientific studies, you see kind of a more even mix of information. So, there's plenty of studies, kind of like mine -- my research that showed negative effects of beavers. You know, beavers can block fish passage or they can change fish habitat. They can negatively affect them. But there was also plenty of studies that showed that beavers either didn't affect the fish at all, they didn't block fish habitat and sometimes the fish occupied beaver ponds. And there was plenty of studies also that showed that beavers had positive effects on fish. And the fish actually used the beaver ponds as habitat. And so, we can dive a little bit more into that and kind of break it down by region. And that'll also be helpful to kind of think about how different species of fish might respond to these beaver structures.

And so, starting in Southeast Alaska, the perception or the yeah, the perception and the effects of beavers on fish is mostly positive. So, in

this area, similar to the Pacific Northwest, like Washington and Oregon and California, all of the scientific studies, and the people in those areas mostly see beavers as a positive thing for fish habitat. They create habitat diversity. They create places that are safe for the fish to reside during floods, things like that. In particular, juvenile coho salmon and juvenile dolly varden really utilize beaver ponds heavily in Southeast Alaska and British Columbia and Oregon and Washington in those kind of Pacific northwest temperate rainforest areas. So, coho salmon and juvenile dolly varden, they -- they're in beaver ponds during the summer times. And they feed and grow in beaver ponds in the summer in many places. They're also in there during the winter and they spend the whole winter in a beaver pond. What was interesting is that even though it seems like these beaver ponds are really good habitat, the fish are growing more they're generally protected in these areas. There was multiple studies from Southeast Alaska that showed that sometimes when the fish get concentrated in these beaver ponds, they're really vulnerable to predators. And so, if a crew of otters or an eagle or some mergansers or any other type of predators cue in and they find that beaver pond, sometimes they can wipe an entire beaver pond out and, you know, eat hundreds of fish. So, there was a couple studies that they basically dug through otter poop, and they found hundreds and hundreds of fish bones and otoliths that that they could attribute to that predation. And so, even though these beaver ponds are generally thought as safe, stable environments for the fish to be in there is some kind of risk because you're concentrated. And when the flows are low, you're stuck in there. And so, it's kind of a tradeoff. But overall, it seems like those beaver ponds are really good for, for the coho salmon and dolly varden or trout.

The beaver ponds are generally warmer. This is a common theme we'll see throughout Alaska. In the Lower 48, especially in these desert ecosystems like Utah, where water is really limited and it's very, very hot. The beaver ponds usually actually cool streams down because they increase groundwater interaction. and that's a really good thing for fish and fish habitat. But in Alaska, it seems like it's almost completely the opposite. Beaver ponds are normally almost always warmer than the main river systems and fish in warmer water, they can grow faster. Their metabolisms run faster, so the fish tend to grow faster in beaver ponds and get larger overall, which can be seen as a good thing. And

we'll talk about that more in a couple slides too but that temperature variation is very important.

In Southcentral Alaska, so, moving to -- this is like the Kenai Peninsula Anchorage area and the Copper River basin. In Southcentral Alaska, there was a mix of effects. So, there was plenty of positive effects noted, especially cutthroat trout, which seemed to benefit from beaver ponds. Cutthroat trout, they were documented rearing in beaver ponds, their growth was better in beaver ponds, they had good food available. Adult cutthroat trout were able to pass up above beaver dams and get upstream to go spawn in lake systems. And so, the cutthroat seemed to benefit from beaver ponds, or at least not be negatively affected that much. In this area though, there's a lot of concern about sockeye salmon and chinook salmon in the Copper River basin that are being blocked by beaver dams. So, there's a lot of different examples that I've come across personally, talking to different managers and locals in the area, I've talked to some managers at Fish and Game at the National Park Service, I've talked to some fish guides in that in that region. And they've all told me different stories about different areas where beavers have really significantly blocked fish habitat.

So, here's just an example. And if you look really closely, you can see all those white fish that are floating downstream, those are dead salmon that are floating downstream. But if you look really closely, all the dark on the bottom of the riverbed is all salmon. They're so thick in their sockeye salmon that you can walk across their back. And so, and they're all blocked by this beaver dam. And so, this was this photo was sent to me by Mark Cleveland, he's a biologist with the National Park Service in Wrangell-St. Elias Park. And they actually go in -- once they observe this happening, they go in and they remove this beaver dam every year so that the salmon can get upstream and spawn in their lake system. But it's just really stunning to see thousands and thousands of salmon blocked by a beaver dam there. Again, there's other examples of that with chinook salmon radiotelemetry research that has showed that the chinook salmon are blocked. And then there's some other examples with sockeye further up in the basin where some beavers moved in -- so this used to be a small stream system that connected to some lakes high up kind of by the Denali highway. And the sockeye salmon used to spawn in this area. But beavers moved in and started damming it, and they basically dammed this

entire stream, dam after dam after dam, and turned what used to be a small, fast flowing stream into like a sprawling wetland complex. And what the Fish and Game manager told me about this area is that this used to support about 20- to 30,000 sockeye salmon per year, and now the fish are just completely extinct or extirpated from that area. So, there's no sockeye salmon that make it up this creek anymore. They're completely blocked by beavers and it's just completely changed the environment. And so, examples like this are definitely a concern of folks in that region. And it seems like that's right for sockeye salmon specifically relatively common across Alaska.

Okay, now moving kind of closer to your region in Southwest Alaska. Here we saw we found more negative effects than positive, but there's kind of a nice variation in research. There's been a bunch of really cool studies, a PhD dissertation, which has 3 different studies and a couple of different Master's thesis research on the Kwethluk River. And -- that showed that juvenile coho salmon and also juvenile chinook salmon utilize beaver ponds pretty heavily. So, these are beaver ponds on kind of the side sloughs and the oxbows and the spring brooks of the Kwethluk River. And what these studies showed is that the beaver ponds were warmer than the main stem river. And the other spring brooks, those brown fed areas. And that that generally resulted in bigger fish that grew faster throughout the summer and ended up bigger at the end of season. But it also found that there was less fish overall they were lower density and there were less overall abundance. And so, there's kind of a tradeoff there where, do we want in order for more salmon to come back? Do we want a few larger fish or do we want more numerous but smaller salmon smolts? And so, we're still kind of studying this and seeing what, what, what that trade off looks like. But there's definitely a habitat diversity that's being utilized by coho salmon specifically and also some chinook salmon in the area.

One of the things to note is that the old ponds in the Kwethluk River, the ones that are really far back from the river, the ones that have been there for decades, those had no fish. In all of these studies, they had almost no fish or no fish at all. And so, these were pretty poor fish habitat. They're not very accessible there, they don't have very much water flowing in or out of them. And so, the younger ponds were a much better fish habitat, but those old ponds way

back, that maybe is like good moose hunting or something like that, those were generally not good fish habitat. There was some other research on the Kwethluk River that showed that beaver dams were a barrier to the spawning sockeye salmon. So, kind of similar to those pictures I showed a couple slides ago. Sockeye salmon don't seem to be able to jump over those beaver dams that well compared to maybe a coho or steelhead trout. And there was also a lot of observations and local concerns from subsistence surveys about beaver dams blocking whitefish. We don't have very much data on this, but there was a lot of observations and concerns noted from local people.

And so overall, some research from this area has estimated that the salmon productivity, at least in the Kwethluk River, would be higher overall if there was less beavers or if there was no beavers in in that study area. So, this isn't necessarily like a management implication that we need to go out and trap all the beavers. That's not necessarily what I'm suggesting, but it is something to kind of consider that the beavers could be blocking fish habitat. They can't -- they definitely could be altering and affecting how the salmon populations are doing. And so, that's something to think about, especially as temperatures are changing, as wildfire history is changing, things like that.

Okay, now coming back to my area, the Interior Alaska or the Yukon Basin, we included the Yukon territory of Canada in here because the Yukon is one big river system. Here we almost exclusively found negative effects of beavers on fish. And so, we -- I already talked about my research earlier. There's both my research and some other studies that show that beavers have pretty widespread effects on arctic grayling, that they fragment their habitat and prevent them from moving upstream. There's some management reports where Fish and Game actually had to go in and remove beaver dams so that arctic grayling could get to an important spawning area near Fairbanks. And so, it seems like overall beavers restrict arctic grayling habitat. And that's been pretty consistent across the Board.

There was a cool -- a pretty cool set of studies in the Porcupine River basin off the Black River, where a lot of local subsistence folks and tribal members voiced concerns about beavers affecting whitefish populations. They had seen noticed declines

in the whitefish and increases in beavers and wanted to know if those were those were related. And so, U.S. Fish and Wildlife did some research and it was actually a really cool study that studied whitefish and pike in these beaver sloughs, in these oxbow ponds that beavers have dammed up. And overall, they concluded that the beavers benefited by -- that the fish benefited by the beavers creating habitat diversity. So, it seemed like it was mostly young fish. Like small juvenile whitefish and juvenile pike that couldn't -- they were too small to eat the whitefish. They were like the small pike that eat bugs and stuff like that. And that overall, they decided that because the river flooded enough throughout the summer and the water came up over the top of the beaver dams into those oxbow ponds that the fish were not restricted to move in and out. They had enough opportunities throughout the summer to move in and out of beaver ponds. And so overall, it didn't seem like they had a negative effect. So, that's kind of the only positive study from this area. But a lot of other management reports, scientific research, and traditional ecological knowledge suggest negative effects of beavers on fish. And that may be because it's not a very steep ecosystem. Some of our streams are really, really flat. So, it's easy for beavers to dam. And when they do dam those streams, they last for a long time, those dams last for decades instead of just a, you know, a couple of weeks or a year.

And then also, in the Yukon Territory on the Canadian side there's a lot of concern about beaver dams blocking chinook salmon that are migrating. And so, they have a really active dam removal program in that area. They work with tribes and consultants and people who run the hatchery on the Yukon River. And they remove beaver dams pretty aggressively during the chinook salmon spawning season. And it seems like pretty universally the -- they have a lot of beavers over there and they want to trap them out and they want to remove the dams. And so, there's some cool research on that. And it shows radiotelemetry research showing that the beaver dams did block salmon and so they do remove beaver dams and some of those key spawning areas to support chinook salmon. And here's just an example from (indiscernible) Fitzgerald, one of his papers. This is the type of beaver dams that is blocking the chinook salmon near their hatchery area in Whitehorse.

Okay, so to our final region, moving to the Arctic. The Arctic, so Northwest Alaska, the Seward

Peninsula, Northwest Alaska, the North Slope very -- overall, very little is known about beaver and fish in this region. And that's because beavers are have recently expanded into this tundra ecosystem. So, over the past 50 years, beavers have been expanding north from the Yukon Basin, basically up into this Northwest Alaska. And as far as we can tell, beavers were not there historically. The local Native tribes and elders there don't, don't ever remember beavers being part of their lifestyle. They don't know how to trap them. They're not interested in eating them. And from what we can tell from the satellite imagery, there's been some really cool studies from my collaborators that almost all of the beavers that have populated Northwest Alaska have come up in the past 50 years or so. And so, this is a very rapid species expansion in that area. The populations are just growing super-fast and they're expanding north at a really fast rate. And so, there's a lot of concern from locals about how that's going to affect fish and their ecosystems and a lot of different things in general. And so, very little is known because beavers are new to this ecosystem. One of the places where we have the most information is the Seward Peninsula, especially the southern side of the Seward Peninsula, like by Nome. And there's -- here there's a lot of speculation and some data about how beavers have caused an increase in coho salmon and a reduction in chum and chinook salmon. So, the idea is that like we've mentioned in the Kwethluk River and in Southeast Alaska, coho salmon -- juveniles coho salmon use these beaver ponds to rear, and it's a really good environment for them to rear and grow up in. And so, it does make sense. And there's some data from the area that shows that that the coho salmon are utilizing these beaver ponds. And also, dolly varden or trout are using these beaver ponds to rear as juveniles and to have some habitat diversity. There's also a lot of concern and speculation that the beaver ponds have caused a reduction in chum salmon and chinook salmon. And so, that could have been caused by other things like chum salmon are down through the whole AYK region right now and other parts of Northwest Alaska too. But there has been some information that suggests that the beavers are negatively impacting chum salmon. And one of the ways that they could be doing that is by impacting their spawning beds. So, chum salmon don't -- they don't stay in the freshwater after they hatch, when they're juveniles, when they're fry, they basically hatch and go straight out to the ocean. Whereas coho and chinook salmon, they stay in fresh water for about a year or year and a half before they go out to the ocean.

And so, they can utilize the beaver ponds while they're juveniles but the chum salmon don't do that. And so, what's really critical for the chum salmon instead is to have a stable habitat to spawn in with groundwater upwelling, where the groundwater is bubbling up and it's creating a stable temperature about 35 to 40°F. It creates a stable temperature throughout the winter for those eggs to incubate.

And so, here's just some examples from another unrelated project that I'm working on, that shows the temperature of thermal upwellings. This is in chum salmon spawning habitat. So, you can see these all of these yellow hotspots. Those are where the groundwater is bubbling up. Those the groundwater, the warm water during the winter time and cold water during the summer, is coming out of the out of the ground and providing good, clean, fresh gravel for those salmon to spawn in. Here's just some more examples of kind of what that looks like. You see these hot spots of groundwater bubbling up. And the major concern is that the beavers are competing for this habitat. The beavers also want warm, stable water. They also want, you know, water that's going to be consistently open throughout the whole winter so that they have places to store their food and swim and keep their cache. And so, there's a lot of concern in the Nome area that the beavers are directly building dams on these spawning habitats that the chum salmon need because they're this -- they're that warm groundwater upwelling. And so, here's just an example of a beaver pond that was built right in this chum salmon spawning area. You can even see the blue water upwellings are coming up. And then you can see all of this warm water, this bright yellow, warm water that's coming up all throughout this area. And I don't know if this is accessible to chum salmon or not, but that's a major concern from that region.

Overall, there's -- we've been working up in this region with Fish and Game Subsistence Division. And I've been up there for the past couple years. There's a lot of concerns about whitefish and dolly varden or trout from the region, but there's not very much information or data yet. So, we don't really have a lot of answers, but we're kind of working on that. And then additionally, we do have a collaborator who's a PhD student, who's studying these things, and he has some really preliminary data showing that overall fish occupancy was lower in beaver ponds than in on beaver dam streams. And so, here's just some examples

of salmon. Salmon were in a lot of these beaver pond sites. But dolly varden trout were only in about half of the sites in half of the beaver ponds. And then grayling were in barely any of the beaver ponds at all. So, that kind of aligns with the other research about grayling from the Yukon Basin. And then there's also some preliminary -- that data was from Nome, the -- Nome and the surrounding areas. There's also some information from further north in the river, that's very preliminary. They're still kind of working on this, but overall they saw the same general trend. That there was less fish occupying these beaver ponds than there was in just the typical stream channels and sloughs and side habitats. So overall, it seems like beavers in the Arctic do have potential to prevent fish from accessing habitats as well.

And so, this is going to be a big part of my research moving forward, kind of working on the beaver expansion into the Arctic and studying these different fish species. We currently have a big proposal in we're not sure if it's going to be funded yet. But it would look at beaver and pike and whitefish in Selawik. It would look at beaver and salmon in the Nome area. And then we would also do some kind of exploratory work further north in the Kobuk and the Noatak and maybe the Wulik River basins about how beaver distributions are affecting trout and whitefish and salmon in those areas. And so, the big question is, are the beavers going to change the fish habitat, and is that going to change this distribution of species? Are this -- are trout going to decline and salmon going to increase or vice versa? How will it affect whitefish? Are different salmon species going to respond differently? So, this is kind of what we're working on looking forward trying to kind of focus towards.

Okay, and then kind of wrapping this up, taking a step back and thinking about what this looks like compared to the rest of the United States. So, most of the fish -- beaver and fish research comes from the Western United States, the Pacific Northwest, Washington, Oregon, California, Nevada, Utah, those kind of areas either temperate rain forest or desert, arid ecosystems. And these are also very steep streams. And almost all of the research that comes out of this region shows positive effects of beavers on fish. And so, for example, coho salmon and steelhead trout and rainbow trout respond -- seems like they respond really well to beaver dams in these areas. And I think that's partially

a result of the environment. There's a lot of water, at least in the Pacific Northwest, that creates flashy streams that bust the beaver dams out and allows the fish to get upstream periodically throughout the year. The research that these species have been conducted on, again, salmon and trout are some of the best jumpers, whereas, you know, fish like arctic grayling and whitefish may not be as good as jumping or pike as well, may not be as good as jumping and may not be able to get over those beaver dams. Here, we've mostly seen that the beavers cool the water, which is really good for those desert ecosystems. And people are actually using beavers to restore streams. They're taking streams that are degraded from development and mining and other things, and they're installing beaver dams and they're translocating beavers into these areas to actually restore the ecosystems for them. And so, the research in this area is almost -- is very positive towards beavers and fish.

Now, I had the pleasure as part of my master's research to travel to the Midwest, to Michigan and talk to some of the managers there who are working on beaver and fish research in that region. And you can see it's a very different region, it's very flat. If -- this area was carved out by glaciers, so it's flat and it's silty. It's a lot of lakes. It's not a big, steep mountainous area like the western United States. Here it's really interesting that they have really robust and fast -- rapidly growing beaver populations. So, the beaver densities that they were talking about when I watched these presentations were higher than in Alaska. So, there's a lot of beavers around those areas and their low gradient streams, which means that the beavers build big dams that don't break out very often. Which means that the fish habitat is broken up, it's fragmented, and that lasts for a very long time. There's also a lot of sediment in this area for all the glacial silt and sediment, and also from forestry activities and the beavers are starting to collect that in their ponds. And that's directly impacting spawning gravels and habitat, which are really limited in that area for things like salmon and trout. In this area, they also observed that beavers were warming the streams rather than cooling them, which is kind of similar to what we've seen up here.

And so, it was interesting to kind of compare and contrast these 2 regions and kind of what they're observing with beaver and fish interactions and

kind of think about how that applies to Alaska, which is kind of unique from both of those. In Alaska, we kind of have a combination of those 2 things. So, in Southeast Alaska and Southcentral Alaska salmon respond, it seems like really, really well because there's deep streams, there's a lot of rain and water that floods and busts those beaver dams out and allows the fish to get passed through multiple times throughout the year. So, that's similar to the Western United States. However, in other parts of Alaska, like the North Slope or Northwest Alaska or the parts of the Yukon, we have really low gradient streams, which means that there's really persistent beaver dams, that they last years on end or decades, sometimes I've seen some beaver ponds on satellite imagery that lasts 20 or 30 years. And they just totally block off all of that habitat to fish. And so, that's definitely a concern. Probably the primary concern of beaver effects on fish is blocking them from moving upstream, more than anything else. Sediment can definitely be a concern if they're piling up sediment on top of important spawning gravels or, you know, for example, competing for that chum salmon spawning gravel. And, and it also seems like the beavers are causing warming, which could be a good thing or a bad thing, depending on the specific ecosystem on a warm year like we had in 2019, a record hot year beaver caused warming could be a bad thing and it could kill all the fish in the pond. But on the other hand, in a cool year or a year where we get a lot more rain, a warm beaver pond could allow those fish to grow a lot faster and get larger throughout the summer. And so, there's a lot of tradeoffs and nuances that we're trying to figure out, and it's not necessarily a blanket statement across the whole state.

So, to kind of wrap this up, there's a lot of different factors that contribute to how beavers impact fish. It varies a lot based on like the fish species, the life stage of that species. For example, like an adult salmon may be blocked by a beaver dam, but a juvenile salmon may be able to use that beaver pond for habitat. So, it's kind of a give and a take. Certain fish have a lot better size and jumping ability to be able to get up beaver dams whilst others really struggle. And there's all sorts of different habitat preferences and migration timing that affects how these fish are affected. There's also all of the extrinsic factors, things like stream gradient, how flashy the river is, how fast it comes up after a storm, what kind of substrate it is, what the water temperature is, how, you

know, how the dam is constructed, what material it's constructed with. All of those can affect how much of a fish barrier it actually is. And really the key phrases that I've come up with is permeability and persistence. So, the biggest concern for fish passage is the impermeable and persistent dams. Those dams that I showed that had no water flowing over the top or flowing through them. And they lasted for years on end or decades. Those are the ones that tend to block fish passage. Not every beaver dam is a problem for fish. And I'm not necessarily suggesting that we need to go out and trap every beaver or destroy all of these beaver dams, but some of the beaver dams that are really impermeable and really persistent, especially if they're in important fish habitats like spawning areas or rearing areas, those can be a concern for fish. And so, what I'd like to take away from this is that the management implications should kind of vary regionally because there's no blanket statement in each region with each fish species, every kind of dam is different. We should kind of approach it at a regional level. So, the answers in your guys' region, in your river basin, in your village, may be very different from another village in the Yukon, from somewhere in Southeast Alaska, from somewhere in Anchorage. And I think that's a good thing. I think that we should, at a kind of a local level, be making these decisions about whether the beavers -- about how to manage the beaver populations.

And so, I'm still working on this -- a couple of these studies. I've got some other stuff kind of on the back burner as well. And my sights set on the future. Like I mentioned, we have a big proposal in to do research in the Arctic and I'm totally open to collaboration. So, in this literature review, we're collecting quotes and we're collecting photos and information from unpublished reports. And so, if you guys have any information like that, if you have photos of beaver dams affecting fish or fish in a beaver pond, you know, using that habitat or somebody fishing right by beaver dam because the fish are concentrated there, or if you have quotes and observations about that stuff, I'm really interested in it. I'll give you my email and I'd love to hear your stories and your thoughts and -- on that kind of stuff. And we might even be able to include it in our paper or in our study. And so, I'd love to hear your thoughts and I'm open to other collaborations and stuff as well.

And I'll give one last plug for this Arctic Beaver Observation Network. This is an international working group that we're part of organized by Ken Tape and others. But it's a group from Alaska and Canada and even parts of Europe as well, that are kind of -- we're all working together to monitor the expansion of beavers into the Arctic, as they go up into this Arctic tundra. And what all the effects are for that region and kind of what the effects are on people. And so, we're part of this relatively big group. We've got a bunch of different things that we're studying. Fish is one of them, disease is another, mercury and contaminants is something that we're monitoring. A lot of people are concerned about travel and access and permafrost thaw and vegetation change, and birds and fish that are showing up in places that they haven't before. And so, we're looking at a lot of this stuff, if you're interested in getting involved or just seeing some of our content, let me know, and I'm happy to kind of connect you with that group as well. But with that, I'd be happy to take any questions and I'd love to have some discussion and hear your guys' thoughts. Thank you.

CHAIRPERSON CLEVELAND: Thank you for your presentation. Well, that was very informative and happy to know that there's studies happening here in Alaska. There's probably going to be questions or comments, but if I can, I'm going to ask, is there a difference between inland and coastal beavers? I know obviously what they eat. But are there like physical characteristics or something that tells them apart by chance?

MR. SAMUEL: That's a good question. I'm not sure if there's an actual genetic difference. I don't think that there is, but I'm not totally sure. I know that the beavers are very industrious. They will travel a longways and they will go and build what they need wherever they are. So, there's been lots of observations of beavers in the ocean all along the Bering and Chukchi Sea, up in Northwest Alaska, and I think some from your, your guys' region as well. And so, the beavers will get out in the ocean and swim through. People will go out seal hunting, and they'll see a beaver and not know what it is. And so, that's definitely something that happens. I've seen beavers on the top of mountains where there's no trees, no nothing. I'm like, what are you doing up here? There's nothing for you. And they're just charging and that's why they expand. That's why they're everywhere. So, I would guess that they're probably the

same. They're not genetically distinct, but I don't know for sure.

CHAIRPERSON CLEVELAND: Thank you. One thing I did hear was that the -- I think interior beavers were preferred for eating over coastal beavers. I don't know if anyone in here can compare, but open to other comments and questions, too. John Andrew.

MR. ANDREW: Just some comment. My name is John Andrew from Kwethluk, Alaska. I'm a long-time retired trapper. In my simple observation, all those years before the population explosion of beavers that we used to have a good spawning runs on coho and chums. Then after beaver, all the way up to probably early 80s, almost to the 80s, we used to see a good runs of spawners getting up to our headwaters into spawning creeks, and after beavers start to build up those high dams they couldn't get into them to write to the spawning creeks. I think that's happened -- from what I hear down the Eek River, Kwethluk River, Kasigluk River, Kisaralik and some of the -- probably some of the rivers further up too. And in all these years I -- especially back in the early days when I used to -- when the fur prices were pretty high, we used to trap them very hard, beavers, try to keep them population down to the minimum. And when we used to do that, we used to have a healthy returns to the spawning areas. But with a lot of the -- better than 50% of their dams further up are too high for the salmon to jump over them at the -- when the water is really low. And when the water is really low, they cannot get up to that real high dams and they're easy prey below the dam because the water is shallow. The bears can catch them real easy. Same way with other predators like otters, even hawks and eagles that go after them. Especially ospreys and eagles. They feed on spawners too. And after we start seeing loss of habitats for many denning areas, our region don't produce any more. Even -- not too many trappers harvest them anymore. At one time we used to harvest better than 10,000 mink every winter in this region, especially in the tundra and the coastal area and along the rivers close to the spawning creeks. Nowadays, you know, you hardly see -- not too many mink come back. But I think they do good for (indiscernible) though, because not too many people, a lot of our people don't go after them anymore because they know there's no money in it, because it costs too much to go out anyways, that it was a simple operation.

Also, in the areas where we used to have traps set for blackfish when they get flooded out, then after a while, after the -- when they're too high, they cannot migrate out. They die off in those -- some of those dams I've seen whitefish -- dead whitefish up on the upper ends of the -- those dams. Even below those high dams, we see a lot of dead -- spawn salmon dead from probably too tired. Some die from other reasons. Dead right on those shallow waters. That's operations -- observation. I know some of the older people, I hear them hear from those other villages in the same story, too. Thank you.

MR. SAMUEL: Thanks for sharing.

CHAIRPERSON CLEVELAND: Quyana, John. (In Native). Is there anyone else? Brooke.

MS. MCDAVID: Thank you. Through the Chair. I remember at our last meeting that Henry had a question about, and maybe Will you might know something about this, Henry's one of our Council members. That Ken wasn't able to answer, but maybe you might have some knowledge about -- he was wondering if you know, if beavers in a beaver pond could -- if their urine and feces could be impacting fish in the pond. And I believe he was particularly concerned about blackfish, but maybe Member Parks could add anything if I missed. Thank you.

MR. PARKS: Yeah, you just brought it up, Brooke. That was my question on our last meeting. If the beaver urine can affect and kill the blackfish and other species of fish.

MR. SAMUEL: Good. Yeah. Good question. I don't think so. I don't know of any examples where that has happened. One of the concerns is, you know, not just the urine and feces, beaver feces can carry giardia, which is a parasite that can make people sick, beaver fever. And so, you don't necessarily want to drink straight out of a beaver water pond, it can make you sick. But you can filter the water or treat the water and it's just fine to drink. I don't believe giardia affects fish at all, I think that's just a parasite that affects people and the beavers. And other things carry it like foxes and some other animals as well. So that's, that's one thing.

The main concern with beaver ponds and fish is deoxygenation. And so, blackfish are really good

actually at, at living in ponds that have very little oxygen in the water. Pike are also really sturdy and they hold up to low oxygen in the water. But other fish like grayling and maybe salmon and depending on the specific circumstances, they might not survive if the oxygen gets really low over the winter. So, depending on the beaver pond, if it's in a flowing stream, it's probably not too much of a concern. But if it's a beaver pond on like the side of a river in like an oxbow and it doesn't, no water flows through it and there's fish trapped in there. It's certainly possible that the beaver pond could run out of oxygen throughout the winter, and the fish could die because of that. That happens in in other lakes as well, just that are not affected by beavers. And so, I don't think the beaver feces or urine could have a negative effect on fish. But those other cases, giardia is one thing to think about. And the oxygen in the water is another thing to consider.

CHAIRPERSON CLEVELAND: Brooke.

MS. MCDAVID: Thank you. I just wanted to follow up. This is Brooke and ask Henry to -- did you tell us -- I can't remember if you noticed the blackfish numbers are going down where the beaver are?

MR. PARKS: Yes, they are. Especially what he just stated when they don't have oxygen, when the especially the ponds, when they're solid frozen, they start dying too.

MS. MCDAVID: Does anyone else have any observations about beaver in your area? I think, Francis, you had mentioned something about beaver and pike that you noticed. I don't remember if you said pike might be increasing at the same time beaver are increasing.

MR. PRINCE: Madam Chair, my name is Francis Prince. And I just wanted to mention that we had an issue with just one beaver dam in our village concerning our whitefish, because in the past, we had members in the community go through our Kotlik slough to eliminate the beaver dam to help us preserve our whitefish gathering. It was preventing us from catching our broad whitefish for the winter.

CHAIRPERSON CLEVELAND: Thank you for telling us your observation, Francis. We have someone online too who would like to ask a question. Chris Tulik,

if you're on, you have the floor.

MR. TULIK: Yes, thank you, Madam Chair. My name is Christopher Tulik, for the record. So, well, you noted that there's -- about the positive, neutral and negative responses from certain parts of the states. So, with the negative -- negativity about the beaver in certain areas of the state, have you asked the question why there is so much negative responses? Thank you.

MR. SAMUEL: Yeah. Great question. I think a lot of it has to do with like the -- just how the river systems are formed, like geologically, or the -- just the, you know, what the landscape looks like. So, those beaver dams that are very permanent, that there's not very much water that flows through them and they last for years and years, those tend to be in the low gradient streams. So, this is like a back slough that you'd, you'd find a moose wandering through. It doesn't have very much current. Those are really easy for the beavers to dam because when the rain comes or the snowmelt brings the flood, it's really slow. The water doesn't come up in a big burst and blow that beaver dam out. And so, like in my area, in Interior Alaska a lot of the streams are a little bit lower gradient. And so, the beavers can build the dam and it lasts for a long time as long as the stream is small enough. Whereas like somewhere in Southeast Alaska or Southcentral Alaska, Anchorage area, those are a little higher gradient, they're steeper streams. And so, even if it's a small stream with the same amount of water, you know, you can wade through it and you can fish or you could walk through it if you wanted to during normal flows. When it does rain or when it does, you have spring snow melt, that water comes and it comes in a lot faster. The same amount of water comes all at one time. And so, that creates a bigger flood and that bust those beaver dams out. And you guys may know that if you go and bust a beaver dam out, or if a flood busts it out, the beavers will be back and rebuild that dam in a couple days or a couple of weeks. They're really quick at doing that kind of work. But even just having a couple days to let the fish pass through from kind of those -- the floods either from rain or snow or something else is really helpful to allow that fish passage.

So, I think in the Arctic, you know, if there's not very much rain or in the Yukon, if it's a lower gradient stream and those floods don't occur every year or multiple times per year, then it can prevent the

fish from accessing those spawning areas. Whereas like Southeast Alaska or British Columbia or Washington, where they get so much rain, there's enough water and enough floods to bust those out naturally. And so, the main negative effect is just preventing fish from passing up and down stream. And if the floods take care of that for you, then it's mostly just habitat diversity, which is a good thing.

CHAIRPERSON CLEVELAND: Thank you. And then I just have a question based off an observation I made when we were pike fishing in an oxbow with a beaver dam. We did so well, like every cast, we were catching a pike and then we noticed they suddenly disappeared, and it was when a beaver started swimming around. So, assuming they eat them, right? I mean, you might have mentioned this already, and if so, in that case, maybe beavers are good for my river where the pike are invasive. So, I assume beavers eat pike, right?

MR. SAMUEL: No. So, for the most part, beavers never eat fish. Beavers are herbivores, so they eat aquatic vegetation and they eat trees, willows, they love willows. It's the best food for them. Willows and like underwater plants, but they'll also eat birch and alder. But beavers rarely if ever, eat fish. There's one kind of wacky observation from the Anchorage area of the beavers actually eating salmon. It could be that they were just confused and thought they were sticks that they were trying to build a dam with. But for the most part, beavers don't eat fish at all. And they don't hunt them. Other things will eat fish, like for example, otters will hunt in beaver ponds and eat fish quite a bit, or maybe a mink would do the same thing. And so other things can come and hunt fish and so -- and to a pike, maybe a beaver and an otter looks the same. So, the pike might have got out of there because they didn't know, you know, whether it was a beaver or an otter, they just know that when the big brown furry thing comes around that there's -- they get start getting chomped up.

CHAIRPERSON CLEVELAND: Okay. That explains, because once we had a fish on the shore and we thought it was stolen by a beaver, but it might have been an otter.

MR. SAMUEL: Yeah.

CHAIRPERSON CLEVELAND: And then Chris Tulik has another comment. Chris.

MR. TULIK: Yes, thank you, Madam Chair. So, based on your study, you know -- it's my own opinion and (indiscernible) answered some part of it, the way he explained how the beavers block the fish from streaming further up the river. So, you know, a lot of -- more people out here on the YK Delta are subsistence fishermen and they depend more on the fish. So, I would say, you know, based on that -- your study more people out here have, you know, more negative feeling or, you know, just thought about the beaver dams or beavers and what they do. Thank you.

CHAIRPERSON CLEVELAND: Quyana, Chris, and Will, if -- you're welcome to respond if you want.

MR. SAMUEL: Yeah. The beaver management is not addressed very directly in Alaska. There's trapping regulations and so people can go trap in a lot of areas probably -- I'm assuming in your area it's almost open season. You can go get as many beavers whenever you want. I'm not sure if that's true for exactly your area, but in a lot of remote areas that's the case. And so, it's kind of hard to strike the balance between the historical -- the trapping history, the Western history of, you know, trapping beavers out of across all of North America. The Lower 48 and Canada beavers were exterminated for their furs because the furs were so valuable back in the 1800s. And so, Alaska's been a little bit insulated from that. And that's one of the reasons we have such high beaver populations today. But beaver trapping is still an important part of our culture. You know, a lot of folks grew up beaver trapping, and now they just don't do it anymore because the furs are not very valuable. And so, it's kind of -- you kind of have to strike a balance between trapping for management and trapping for furs and for culture. And you don't want to exterminate all the beavers, but you do want to be able to manage for the fish habitat.

And so, I'm a little biased because I'm a fish guy. I like to fish too. And I think that the beaver populations are so robust in Alaska that it would be -- it's just fine to remove some dams and remove some beavers, that we can sustain that but that's my opinion and some, some folks in the Lower 48 find that really controversial. So yeah, there's -- you kind of have to, you know, talk with your local community and the local

managers and find what is right for you as the fishing communities. But yeah, it's an interesting interaction. It's so multifaceted, there's a lot to consider for sure.

CHAIRPERSON CLEVELAND: Thanks again for answering that. And then we have another question online from Stanislaus.

MR. SHEPPARD: Thank you, Madam Chair. For the record, Stanislaus Sheppard, Mountain Village, Lower Yukon. Back in the late 70s my late dad, John Sheppard, and my uncles would go up Pilot Station (In Native), Andreafsky, North Fork, East Fork, and trap beaver. And at that time, the beaver limit was 10. And within the late 70s and early 80s, beavers were starting to come around down here. Majority of the streams that used to be used for blackfish, otters, mink, muskrats, they're all dammed up, one stream you could count maybe 40 or 50 dams and just had one stream. Now, I have a fish camp. It takes about 45 minutes from here to downriver called (In Native) River, to go there by boat. And I could count -- I'm starting to see beaver dams for the past 8 years. The beaver dams on the Yukon River are down here on my way to camp they're increasing on the main stem, Yukon here. I'm kind of wondering if, if you're seeing any of that up there in the upper river main stem. Thank you very much.

MR. SAMUEL: Yeah. Thanks for sharing that. Well, that that sounds like it aligns with what everybody else has said across the whole state beavers -- it seems like they're increasing. We definitely see that in -- here around Fairbanks. I think a lot of that has to do with wildfires. Trapping has been pretty stable in this region for the past 30 or 40 years, like close to town here. And so, I think a lot of that has to do with wildfires and vegetation where we're seeing those increases in beaver populations. But I've heard -- I've talked to some other folks from the Yukon River, some of the tribal members and YRDFA and things like that. And they've mentioned increasing beavers and they've mentioned that they -- there's stories about where they used to go remove beaver dams for salmon habitat. And that also beavers are really important as a food source up there. When this -- either when the salmon don't come in or the moose or the caribou aren't in the area that you can turn to beavers because they're always reliable, you got to just find a beaver pond and then you can hunt a beaver or trap a beaver from there. And so, it's a reliable food source. It's a good fur. And so, people,

they don't -- in the Upper Yukon, at least the folks that I've talked to, you know, they like a balance between opening up the beaver dams for fish habitat, but also keeping them as an important cultural resource to hunt when other things aren't available. So, it seems like they're probably increasing in the area, but I don't have any real data on that trend. It's mostly just what people's -- what people have observed, which it seems like people are observing more beavers around.

MR. TULIK: Thank you very much.

MS. MCDAVID: If anyone else online would like to give a comment, you can raise your hand or just say Madam Chair. Well, this is Brooke. I was curious, is there anything in particular that you, as a researcher, would be interested in hearing more from Council members about at this time?

MR. SAMUEL: I really appreciate all the stories. That's super helpful. If you guys have any pictures that's really helpful for me to try to communicate this to people. Like those pictures I showed at of beavers blocking salmon. You know, I can say that all of these folks that I talked to and like in this example or other regions in subsistence surveys, that people are having these observations, but a photo really makes that much more obvious to people. So, if you have any pictures now that you'd like to send me or if you see anything in the future, any beavers, you know, blocking fish or fish living in a beaver pond or you're fishing around a beaver dam or something like that. Any -- anything like that is really helpful to kind of communicate this. And you know, we can kind of pair that with a story.

If you guys have concerns, you know -- I'm trying to expand most of my work has been on grayling. I'm trying to expand that out to look at other species, whitefish and pike and salmon and trout. And so, hopefully that will address some of your guys' questions as well. But other than, yeah, just your local stories and photos of what you guys are seeing, that would be -- or, you know, other questions that you have or priorities that you're thinking about. Feel free to just pass on whatever come, whatever you guys see or hear or, or thinking.

CHAIRPERSON CLEVELAND: Thanks, Will. That's a good idea. And while it's fresh. Maybe before

you leave and maybe you already did this, provide us with your email, but -- and to go further there's all -- do you have a Facebook page or...?

MR. SAMUEL: Yeah, I do. I don't post a lot about beavers on that, but -- and (indiscernible), we have a Facebook page, but we don't post there very much. But, but yeah, feel free to find me Will Samuel, feel free to look me up. And then I did put my email in the chat.

CHAIRPERSON CLEVELAND: Okay. Okay, thank you. There's -- and Brooke.

MS. MCDAVID: Thanks, Will. This is Brooke again. I think Jackie might have been asking about the Facebook because a lot of people out in villages use Facebook to get information and stuff. And a good way to maybe solicit photos could be, you know, through some sort of link or just a little flyer that would direct people to your email. I mean, we can, you know, share it through our networks orally, but something that could be shared a bit more broadly might get you more input. Thanks.

MR. SAMUEL: Great idea. Okay, thank you. Yeah.

CHAIRPERSON CLEVELAND: Francis.

MR. PRINCE: I just had a comment for Will from my experience of seeing other trappers at home that trap otter and back in the like early 2000, we noticed a are very big increase in beavers. But after the big beaver population increased, we noticed that the otter, that made a big increase. And after being a trapper of otters for a couple of years, I noticed that whenever we see a lot of tracks around a beaver dam or beaver house, that we know that the otter must be taken over that beaver house because otters do eat beaver. Yeah.

MR. SAMUEL: Oh, yeah. They're vicious. Yeah, there's a lot of research from some folks in Canada and the northern United States that show that beaver ponds are kind of hotspots of animal activity. So, beaver ponds have a lot of bug diversity. They have a lot of bird diversity. They have all sorts of little rodents, shrews and voles and mice. They have all sorts of predators. And, you know, waterfowl that beavers are

kind of -- beaver ponds are kind of these hot spots for, you know, wildlife diversity. And so -- and moose, you know, for example as well, moose really like beaver ponds. And so, there's, you know, that's one of the reasons why people are reintroducing them all over the Lower 48. And they do provide a lot of really critical habitat for other species or really good quality habitat for other species like otters or mink or muskrat can use -- live in beaver ponds. And so, from the fish perspective, it's a little bit different. But yeah, the beaver ponds are hotspots for sure. All sorts of things are going on there. And bears too, bears tune in to the beaver ponds. They'll come in hunt beavers at the ponds and dig up their dens in certain areas. So, there's, yeah, there's all sorts of stuff going on around those hotspots.

MS. MCDAVID: This is Brooke, through the Chair. Will, I was curious maybe to ask the council members because you noted you observed in Interior in the boreal forest region when there's wildfires, you also see a lot of beavers in places that have burned. Council members in places where you've had fires, Tundra fires and things near your communities, have you seen any beavers in those areas afterwards? Just as an observation.

(No response)

We're not seeing seen any.

CHAIRPERSON CLEVELAND: Pat.

MR. SAMPSON: Good afternoon. Pat Sampson. Going back to the question of observation on beavers. There's an old dog trail between here and the tundra villages that is discontinued because that was called the (In Native). That's the old dog trail. ATVs and snowmobiles displaced that. But every year, me and my buddies, we used to go up that old (In Native) trail and gather eggs in the springtime. There's 2 adjacent lakes there. On the first one, we gathered cackling goose eggs. On the 2nd one, we gather seagull eggs and swans and there were some cranes. But we probably -- Excuse me -- got about 100 eggs. And then we go back every year for them. But one time there was a beaver set up a lodge right there on the first island. And then, the 2nd spring we went back there, there was no eggs on the island. There's no seagull eggs, there's no geese eggs or anything like that. They moved temporarily to the north

side of this big lake. But last spring I went back there to check on if there were any bird eggs, but before we should get like 100 eggs. But last year I didn't get any, 0. So, when the beaver house -- when the beavers moved in, all the birds stopped laying their eggs over there. So, I wanted to bring that up as an observation. Thanks.

CHAIRPERSON CLEVELAND: Quyana, Pat. So interesting.

(Pause)

Do you have anything else, Will? Anything else to add?

MR. SAMUEL: I don't think so. I could talk about beavers all day, though, but.....

CHAIRPERSON CLEVELAND: Well.

MR. SAMUEL: I don't think I have anything else specific to add right now.

CHAIRPERSON CLEVELAND: Okay. Well, we really appreciated your presentation. Learned a lot. Again, happy that someone studying beavers here. And then.....

(Simultaneous speech)

MR. SAMUEL: Thanks for all the question [sic] and discussion.

CHAIRPERSON CLEVELAND: Yep. Sorry to interrupt. So, Brooke has another question, but on something else.

MS. MCDAVID: Through the Chair. This is Brooke, for the record. Thanks so much, Will. The next item on the Council's agenda was to let them know a little bit more about the workshop that's coming up in Kotzebue later this summer. And Hannah Golden had reached out to me in it -- I hadn't heard back from her if she was going to be able to call in to this meeting, but they extended an invitation for someone on this Council to attend that workshop, and I was just wondering if you could -- if you knew anything, any more details about what might go on at that workshop so council members could consider if someone might be interested.

MR. SAMUEL: Yeah, I do have some information. Give me one second to pull up our (indiscernible) schedule. It's still being planned, so nothing is finalized yet. So, that'll be -- it'll be held in Kotzebue. I -- not sure if we've locked in the dates, but they're tentatively planned June 2nd through 4th of this year in Kotzebue. And it'll be 3 days. And so, we'll be talking about some of (indiscernible) work kind of looking -- mapping the expansion of beavers. Talking to the subsistence people in the area and kind of those observations, the other types of studies that are going on. I'll be giving probably a very similar presentation to this about beaver and fish habitat and kind of the, maybe some of the work we've been doing up in the Arctic. It might be kind of the same presentation that I just gave today.

And then a lot of the workshop will be focused on more like hands on management stuff. So, we'll be doing like beaver trapping and management demonstrations. So, there's some folks there who do a lot of trapping by Kotzebue and have learned specific techniques that they want to pass on to other folks. We'll have some experts who can speak to concerns about like drinking water and beaver diseases, things like giardia and stuff like that. And so, they can talk to you about how to filter water and make sure it's safe to drink, and what the diseases are and how we should kind of think about those.

And then there will be kind of some group activities where we put our heads together to look like, come up with a plan to beat -- for beaver management up in the Arctic, where they're expanding so rapidly. There are people who are hunting and trapping them in in the area, but they're really just not making a dent. They're not changing the populations much at all because they're -- the beavers are just so industrious. So, we're going to try to think about that and discuss that and think about, you know what type of partnerships we can come up with and then we'll be doing some work out in the field, actually setting up beaver traps and hopefully trapping beaver and skinning it and eating it, and learning about that process as well. So, that's kind of all the information I have right now. Some of the plans are still coming together. So, I would definitely follow up with Hannah for specific details, but I plan to be there the first week of June. And some other folks from (indiscernible) probably, as well as Hannah and

fsome of her crew. And so yeah, it should be a good, a good workshop.

MS. MCDAVID: Thank you, Will. Okay, this is Brooke again. Council members, so like I mentioned there -- and Will described, there's this workshop that's going to happen. It sounds like tentatively it'll be that first week of June. I know that might be a hard time for subsistence folks on the Yukon to leave, but if anyone is interested in attending and would like to go, you could indicate your interest now and we could follow up with the organizers after this meeting.

MR. SAMUEL: And I believe they do have some funding to support travel and housing and everything, so if you need help with funding to get there, I believe they have some support for that as well.

MR. PRINCE: Hey, Will, this is Francis. I might be interested, it all depends on the ice break up in the Yukon. You know, I like to collect my logs after the ice break up for the winter.

MR. SAMUEL: That sounds great. Feel free to email me and I can connect you with Hannah, or I'll also throw Hannah's email in the chat as well.

MR. ANDREW: Maybe I have to decline, my health is not too healthy. Sorry.

MS. MCDAVID: And we can also check with Walter. Maybe he's not here at this meeting, but I know he had particular interest in beaver also. If Francis wouldn't be able to go, so. Thank you.

CHAIRPERSON CLEVELAND: Alissa.

MS. ROGERS: Thank you, Jackie -- thank you, Madam Chair. This is Alissa Rogers. Only if I can bring dynamite.

MR. SAMUEL: I don't think they'll let you bring that on a plane.

MS. MCDAVID: And, Alissa, I didn't see that on the list of allowed gear types that we looked at earlier, so.

(Pause)

CHAIRPERSON CLEVELAND: Okay, we're moving on. Back to the top of the page of the agenda under 11 Action Items and New Business. So, 11.c. Review and Approve FY 25 Annual Report, which will be presented by Brooke. And those are on page 13 and 14.

MS. MCDAVID: Thank you, Madam Chair. This is Brooke for the record. I'm just finding the pages myself. Like Jackie mentioned on page 13, there's just the background information about your annual reports. And then starting on page 14, this is the draft of your Annual Report for FY 2025 to the Federal Subsistence Board. So, at the last meeting you all talked about the topics that you wanted to forward to the Federal Subsistence Board for their information about some of your main concerns in your region. And the first topic here -- I'll just go through each of the 5 real quick. You wanted to let them know that your concerns about salmon and Mulchatna Caribou those continue, you've written about those in your previous annual reports and so, we didn't write quite as much since you've talked about them extensively in the past, but just letting the Board know that your concerns continue.

For the salmon issues. You're urging the Board to be proactive about those issues. You've written letters in the past asking for the Secretaries of Interior and Agriculture to work with Department of Commerce. And so, you're basically asking the Board to follow up on those discussions and to invite them to also talk with potentially subsistence users that are either on the Board or on the Councils so they can hear firsthand about those issues. Topic number 2 is -- at the last meeting, you all wanted to request that Mulchatna Caribou Herd working group to be established. So, we included that request here in the report. And you wanted to make sure that that was both, federal and state managers working together along with representatives local people from the RAC and also the state Fish and Game Advisory Committees.

Topic number 3 was something that came up in response to Typhoon Halong, which as you know impacted a number of people in your region. Some folks had to be relocated to Anchorage. And Anchorage is a non-subsistence -- or non-rural area so it's not included under federal subsistence and you all wanted to make sure that there's an exception made for those people who had to be relocated, basically, against their

own choosing due to the natural disaster and hopefully yeah, the Board can liaise with the Secretaries on that if special permission is needed.

Topic number 4. This is also a topic that you've brought up in the past about your Council letters taking a really long time to be sent. And also, oftentimes there's no reply or follow up and so you're asking for improved lines of communication. Especially for things that fall outside of the Federal Subsistence Board jurisdiction like we mentioned about the salmon fisheries, especially in the marine environment. And then topic number 5 you wanted to include a copy of your letter that was comments to the Federal Subsistence Board on the Secretarial Review. And so, that will be attached to your annual report. It's not included right here, but it is in your meeting packets on a different page, it's on page 18, are those comments. But I summarized some of the bullets -- the points that you brought up just to highlight to the Board in case, you know, someone didn't read the full other comment letter that will be attached.

And some of those additional comments included the importance of council member compensation, which is an issue you all have brought up many times in the past. Like you mentioned, include -- improving the correspondence process. Inter-jurisdictional ecosystem based management of salmon. The importance of co-management for all resources, so involving local people and tribal governments in management. You also noted the need for increased outreach and education, especially about regulations in this duel management system, that creates a lot of confusion for local people on the ground. Better alignment of state and federal regulatory cycles. And regulatory maps should include Native corporation lands, in addition to state and federal lands and allotments. And then you also suggested that there needs to be more signage to clarify the boundaries in state and federal, and that came up a lot in our discussion last time about navigable waters.

So, those were the 5 topics. Again, this is a draft. We can't add any new topics, but we can make edits or add additional points to you know, the information that's here. One question that I had for you guys is sort of the way topics number 1 and 2 are divided up right now. I wondered if it would make more sense to put topic one just about salmon and then include Mulchatna Caribou as 1, you know, topic for topic number

2. It doesn't really matter either way, but that was just some feedback that I was looking for since kind of how you brought it up last time was the first topic. You said, we want to let the Board know these are our 2 priority species that we're most concerned about. And then a later topic was about the working group. But we could reformat it if it -- if you would like to see that combined differently. But other than that, I'd love to hear feedback on anything else about the Annual Report or any additional points or clarifications you'd like to see. Quyana.

And we can definitely take a few minutes and look it over if you want some time. This is Brooke, I -- we just kind of need to talk on the record.

(Pause)

So, it sounded like Tiffany might be suggesting where it says kind of the priority concerns, like point out that these are priority food security concerns or concerns for food insecurity. The salmon and the caribou declines can definitely bring in the food security aspect of it if you'd like.

MS. AGAYAR: Yeah, that sounds good. Thank you.

MS. MCDAVID: Do other Council members agree? Does that sound okay? Okay. I'm seeing yeses.

CHAIRPERSON CLEVELAND: And about the format -- this is Jackie. About the format with the Mulchatna Caribou Herd and then the formation of a Mulchatna Caribou Herd working group. I mean, I could see those working together or how you have it is fine because in one we do say struggling salmon and caribou remain. So, either way works for your comment about the for format. And then maybe too add -- this is Jackie again, in one of the next to last bullet point summarization, more regular -- or regulatory maps that include Native lands. And just in case, maybe we could specify their corporation and allotment.

MS. MCDAVID: This is Brooke. Thank you. That's noted.

CHAIRPERSON CLEVELAND: Thanks. Anyone else see anything to add or fix on the -- our letter to the -- yeah, John.

MR. ANDREW: (In Native) formation of the Multchatna working group (In Native).

CHAIRPERSON CLEVELAND: (In Native) Mulchatna Caribou Herd (In Native).

(Simultaneous speech)

MR. PETER: (In Native) Mulchatna Caribou Herd (In Native). There are several different caribou herds in this area that go through our area. There are 2 main ones are the Mulchatna Caribou Herd that comes in from the Bristol Bay side. (In Native).

INTERPRETER: When they had reindeer herds, they let the reindeer herds get away, and they interacted with the other caribou within that area. And those -- the farmer domesticated caribou, our reindeer stay up in those mountain areas and the Mulchatna Herds are more migratious [sic] than the other ones. And so, there are 2 stalks of reindeer. What our grandfathers used to hunt. And so there are 2 distinct. There's the herd that came from the (In Native) area were much larger and they did see great big -- they would see the bigger caribou coming there and the horns were much broader and denser. And I know that I've seen the other stock of caribou and they have a bigger -- they have bigger horns, darker fur, and they're smaller. And they will tell them that those are the woodland caribou.

And so -- and the Fish and Game is to say that they call it -- the bigger ones are called -- Fish and Wildlife calls the herd Mulchatna Herd but our forefathers distinctly call them different. They were different stock. And they were not just one stock, but. And I know there are 2 reindeer, there's the domesticated ones that were released out to the mountains. And then there's the other arctic caribou herd north of us. But they -- the arctic caribou herds are bigger, but they never come down in this way. Those Arctic caribou does [sic] not migrate into this area. And so, I know a lot of times my ancestry used to tell us about these things that -- I know the (indiscernible) generation now that they just call them caribou or they just call them reindeer, or they've caught domesticated reindeer. But when they catch the smaller caribou, the denser or the skinnier, they just called them that they are Mulchatna but when -- they are not Mulchatna, they are different stock. And that's all I wanted to say about that. Thank you.

CHAIRPERSON CLEVELAND: Quyana, John. Can I ask you one more time? So, Mulchatna, Kilbuck, Arctic?

MR. ANDREW: (In Native)

INTERPRETER: From Bristol Bay there are 2 called Mulchatna and they are (indiscernible) for -- and from this area -- the caribou that come this area from that Mulchatna area. The ones with the long legs, the paler, faster, stronger ones. And then there are the former domesticated reindeer up, and those who are called the Kilbuck caribou. And so, the former hunters used to say that their fathers and they used to catch the little tiny caribou. And those are the ones that are stay up in the mountains and they don't migrate into this area. And so, when the Kilbuck caribou come this way, those other ones stay up in the mountains and they do not come down to migrate. But once -- if they do come down, they will go down from this area, and they would go down to Goodnews, Quinhagak area and they would do a circuit to near Kwethluk and then they would go up into the through the Kilbuck mountains, and then they would go down south to the Goodnews area, or they would go to the Holitna River area. And that was their region that they did their migration. And sometimes we used to see, or you can still see the trails on the mountains and those that are heavily used, you can really see the trails and those trails have been there forever. And so, thank you.

MR. PETER: Madam Chairman.

CHAIRPERSON CLEVELAND: Yes, Phillip.

MR. PETER: Phillip Peter, Madam Chairman. John.

INTERPRETER: Okay, John. You brought me up into the mountains toward the Kisaralik headwaters and there's nothing to catch up there. There's no Mulchatna caribou. And they told us that there 5. Our uncles went with us and they told us that we as a family group, our cousins of us there's 5 of us in the group. And they told us about those stock of caribou that you just mentioned that the ones that do not migrate, and they brought us to hunt that stock of caribou. And I remember it was close season, but we got 16 of those (indiscernible) caribou that do not migrate. They do not

migrate anywhere. They just do a circuit around that Kilbuck Mountains. And the (indiscernible) -- I know sometimes I think about going up there and hunting them again, but. Less (indiscernible) up to the 3-step area and I hit them and I ran into them as they were crossing the river, but I did not shoot any because it was closed season.

And it is true what you just said about the different stocks of caribou up on that mountain, and I believe you, and I believe the former uncles. The grandparents had told us about this way back in the day. There just -- said that there Mulchatna caribou but that's not true. The Mulchatna caribou come from the Bristol Bay area. And they were talking about the hunters of the Mulchatna Herd. Our grandparents would tell us that the Mulchatna Herd come from Bristol Bay area, from the south and come in this -- come into our hunting grounds. In the springtime, when we went out hunting, we caught the Mulchatna caribou in April back in the day. And so, we did -- I did catch a Mulchatna Herd stock before.

I asked myself often, why are the Mulchatna caribou -- I didn't catch the last part, but. Those 5 elder hunters before us told us that even if there are low in numbers, you can still keep hunting these caribou. And when you start hunting them you do -- they do increase in numbers. And -- but you just mentioned about those -- they do not get extinct. Those are a different class of stock of caribou that keep going around. And they do not -- even if we hunt them, they do not go less in number, they always increase. If we keep them -- if we keep the season closed, the caribou numbers will not increase. But those of us that go hunting, we should go and call some of the -- even if we see a low number of caribou, we see them as many enough to feed our families. They are enough for us to catch. And so, when I saw this caribou herd come up -- when we first saw the caribou, we thought that there were a lot of caribou, great in number.

And I know the stock that you mentioned before, the ones that go a circuit between here and Goodnews. If we just keep -- if we do not hunt them, they're not going to increase in number. Since the hunting has been closed, that number has not increased at all. For 20 years that number of caribou has stayed the same because they are not letting us open. We would like to open the hunt area for -- to get the caribou

because they do see caribou, but we keep telling them that they are closed and so they don't go hunt the caribou. But those before us that have gone on ahead -- They did not mislead us with any of this information.

And I am happy that John has brought this up, because it is true. Because those gone before us have told us exactly these things. They have told us that they have seen. They have told us what they have caught. And so, they would -- they often told us that while we are able to go hunt to be able to harvest these, even if they are closed, that we need to keep hunting these. That they will increase in number because that's what they were told us. This is not an idea that we brought up that this is what we were told. And so -- and here yet we are just staying home and not hunting them.

I do want to go hunt them. I want to go hunt Mulchatna Herd or the other but I stay because it's closed. I know -- one of my buddies from Kwethluk asked me now, then should we go up to the mountains? But I haven't learned -- I haven't listened to them because I know if I go up hunting for caribou I will get a stiff fine. And so, I do not go hunting at all. I would like to, though, but it's beside the point. But if we keep the season closed and we just keep talking about them, they're not going to increase in numbers. And so those caribou, the Mulchatna caribou, they're not going to increase in number. So I keep saying that. And so, if we just keep everything closed -- so one time when it was open, we saw all trailers come with their big snow machines and they'd load up their sleds. And we've seen a lot of kill sites that they just left. And so, that's against our upbringing. We get what we need, and we bring it to them because the God, the Creator is watching what we do. And so he -- so, the creator takes, moves the resources away from us if we misuse the resources. And so, if we just keep leaving them as is. And thank you, John, for bringing up that issue that has been on my mind. Thank you.

CHAIRPERSON CLEVELAND: Quyana Phillip and John. (In Native).

INTERPRETER: Thank you for helping John.

MR. ANDREW: Madam Chair. (In Native).

INTERPRETER: Madam Chair, can we finish this up tomorrow? It's getting late.

CHAIRPERSON CLEVELAND: (In Native).

INTERPRETER: Okay. I think we are done here.

CHAIRPERSON CLEVELAND: And Brooke has a question.

MS. MCDAVID: Sorry, guys. I know the day is getting long. I just want -- I think this is a really good discussion. I wanted to say 2 things, I guess. First, for the Annual Report. Do you want to add anything about what you just said, or was [sic] you just trying to share additional information?

MR. ANDREW: Mada Chair. (In Native).

INTERPRETER: Before in 1980, when there was a small working group. When there was not enough caribou to go hunting, we used to fraction out a number of caribou for each village, so they would catch a finite number of caribou. And that was how we did it back in the 1980s. But if we went back to that model again -- I think that if we could start letting them hunt with giving them a finite number for each village to hunt, I think we should go with that avenue.

CHAIRPERSON CLEVELAND: (Indiscernible) formation of Multchatna caribou working group (In Native).

INTERPRETER: Okay. So, I -- perhaps we can put that in there.

CHAIRPERSON CLEVELAND: Okay. Brooke.

MS. MCDAVID: Yeah. Thank you for clarifying, John. That's good information we can add. I also wonder if you want to add some timeline for when this working group should start. Like fast, because next year is a federal wildlife cycle. And if you all wanted to put in a proposal for like a community permit system or something for limited number of caribou, that would be a chance. So, maybe if the working group could meet before next year would be a suggestion if you wanted to include that.

MR. ANDREW: Madam Chair. (In Native).

INTERPRETER: Madam Chair. We know that we use the special action so we could utilize the special action and we could fast track it to address the issue. So, if we're going to go through that avenue, even if we don't do it this year, but maybe in the fall time, we can look at that and have them do a special action that could probably also come to fruition. So, at that time, we can address that and make it possible. So, while the caribou are near the villages, we can -- when they start passing our villages, we can start addressing or doing a permit system for -- to (indiscernible) them because I know that when the caribou are not going down river, they're going up to the north. And so, if they are in the Quinhagak area, the Quinhagak area can go hunt those -- that caribou. And if the caribou are near our area, then Akiachak, Kwethluk, Akiachak, Tuliksak, we can hunt the caribou in this area. That was how we used to form it instead of having everybody go and hunt it. Thank you.

CHAIRPERSON CLEVELAND: Quyana. So, Brooke, would you have a recommendation on a date or suggestion?

MS. MCDAVID: This is Brooke. I guess I was just curious if you wanted to include some sort of timeline in your request when you want this working group. If you want it, because you know how things can take long time.

MR. ANDREW: If we ask our biologists and anthropologists then mayb4e they can draw it up as a special action. Getting started on paper, but it should be doable in fall time, next freeze up -- next fall or freeze up. Sometime after freeze up.

MS. MCDAVID: So, John, you're saying you want to be able to hunt in fall time this year?

MR. ANDREW: Aha.

MS. MCDAVID: Oh, okay. That's a the fast -- that's fast track. Okay. Well, I also wanted to follow up because you guys were talking a lot about the different stocks of Mulchatna, yeah? And you guys said there's one stock that doesn't migrate down to Bristol Bay. Could you -- because I was having a hard time following a little bit. Is there a certain area you could point to on the map where that herd typically stays? The one that doesn't migrate.

MR. ANDREW: When they migrate in the fall time, they're usually pretty close to the Kuskokwim. They're always using our village. As an example, back in Kwethluk, there'll be a -- they come really close to the village there, between 7 to 10 miles behind the village. It will be right -- roughly covering Zone 1 or 2. The boundary line between zone 1 or 2, that's where they migrate through. At the edge of that -- some of them would be edge of the hills. Some of them will be at the Tundra. (In Native) Yeah. Yeah. In between the area, in between there.

MS. MCDAVID: So, do they stay in the winter?

MR. PETER: Yeah. If there's a if there's adequate snow cover. This winter could have been perfect. Lot of snow everywhere. Because previous years it'd be hard. There was hardly any snow.

MS. MCDAVID: Thank you, John. Do you want to include anything in the annual report about the different stocks? Do you want to have that noted that it's not all just one Mulchatna?

MR. ANDREW: It will cover -- if you say Mulchatna Caribou Herd, it'll cover both of them in general.

MS. MCDAVID: Okay. Thank you very much. And we can continue that conversation about the potential hunting opportunity, maybe tomorrow. But just to wrap up for today, are there any other additions to the annual report?

MR. PETER: Madam Chair.

(Simultaneous speech)

MR. ANDREW: I think -- from the records -- both Fish and Wildlife and Fish and Game have -- they have the records of their permits in the hunting zone areas, too. Migratory routes. They know them fairly well.

CHAIRPERSON CLEVELAND: Was that good? And then Phillip.

MR. PETER: Yeah. On number two, I really support this one. I really support. Thank you.

MS. MCDAVID: Thank you. I wonder -- well, okay, two things we first, we'll need a motion to approve the annual report. And then I wonder about the working group, if it might be good to also send a letter to Togiak Refuge and Fish and Game. Cause sometimes the annual report can take a long time to get the replies so if you send a letter too, it might get a quicker response.

MR. PETER: Madam Chairman, I'd like to make a motion to accept this secretarial report.

MS. AGAYAR: As amended.

MS. MCDAVID: With the with the noted edits that you guys made.

CHAIRPERSON CLEVELAND: Okay. Quyana. Peter moves to support our -- sorry, Phillip. Phillip moves to support our FY 25 Annual Report with edits. Is there a second.

MS. AGAYAT: Second.

CHAIRPERSON CLEVELAND: Tiffany seconds. All in favor of supporting our annual report, say aye.

IN UNISON: Aye.

CHAIRPERSON CLEVELAND: All opposed, same sign.

(No response)

Motion carried. Quyana.

MS. MCDAVID: And then, did you guys want to send that letter to Togiak and Fish and Game about the working group? Okay, we'll just need one -- use your mic, please, John.

MR. ANDREW: Do the same with our local Fish and Wildlife and Fish and Game. We know the guy that -- we know the people over here.

MS. MCDAVID: Okay, so we should include the Yukon Delta Refuge. Togiak Refuge and local Fish and

Game. Okay.

MR. ANDREW: Fish and Game. Local Fish and Wildlife, too

MS. MCDAVID: Okay. Does anyone want to make.....

(Simultaneous speech)

MR. ANDREW: The other ones that they know who's got C&T history in each village.

MS. MCDAVID: Do I hear a motion, John?

CHAIRPERSON CLEVELAND: So, John moves to send a letter about the Mulchatna Caribou working group to Togiak National Wildlife Refuge. Our refuge here at the Yukon Delta Refuge and local Fish and Game offices from both sides. Oh, is there a second.

MR. PARKS: Madam Chair. I second. Henry.

CHAIRPERSON CLEVELAND: Henry Parks seconds. Is -- all in favor of sending that letter, say aye.

IN UNISON: Aye.

CHAIRPERSON CLEVELAND: All opposed, same sign.

(No response)

Motion carried. Quyana.

(Pause)

I call recess at 5:09 p.m., and we'll be back tomorrow at 9 a.m. We'll be here by 8:30, though, with coffee and snacks. And we'll try to get the coffee -- have the coffee be done by then. Okay.

MS. MCDAVID: Yeah. Sorry about the coffee this morning, guys. We had a little hiccup, but we'll try to do better tomorrow morning. Thanks.

(Off record)

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 110 contain a full, true and correct Transcript of the YUKON KUSKOKWIN DELTA SUBSISTENCE REGIONAL ADVISORY COUNCIL MEETING, VOLUME I recorded on the 17th day of March 2026;

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 14th day of April 2026.

_____
Rafael Morel
Chief Project Manager - Transcriptions