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1	NORTHWEST ARCTIC SUBSISTENCE
2 3	REGIONAL ADVISORY COUNCIL
4	PUBLIC MEETING
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7 8	VOLUME II
9	VOLOME 11
10	Nullagvik Hotel
11	November 1, 2022
12 13	Kotzebue, Alaska
13 14	8:31 a.m
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16	COUNCIL MEMBERS PRESENT:
17 18	Themes Delease Obsidering
19	Thomas Baker, Chairman Elmer Armstrong
	Vern Cleveland
21	Wilbur Howarth
	Michael Kramer
23 24	Enoch Shiedt
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PROCEEDINGS (Kotzebue, Alaska - 11/1/2022) (On record) CHAIRMAN BAKER: All right, good morning everyone. It is now 8:31 and we'll go ahead and come out of our recess from last night. Welcome everyone. My name is Thomas Baker, the Chair of the RAC. We will go ahead and do a roll call to establish our quorum. Lisa, would you please do that. MS. HUTCHINSON-SCARBROUGH: Good morning, Mr. Chair. Members of the Council. Attamuk Shiedt. MR. SHIEDT: Here. MS. HUTCHINSON-SCARBROUGH: Thomas Baker. CHAIRMAN BAKER: Here. MS. HUTCHINSON-SCARBROUGH: Wilbur Howarth. MR. HOWARTH: Here. MS. HUTCHINSON-SCARBROUGH: Elmer Armstrong. MR. ARMSTRONG: Here. MS. HUTCHINSON-SCARBROUGH: Michael Kramer. (No comments) MS. HUTCHINSON-SCARBROUGH: Michael Kramer. Are you on Michael? (No comments) MS. HUTCHINSON-SCARBROUGH: Calvin Moto. (No comments) 

0158 1 MS. HUTCHINSON-SCARBROUGH: Calvin 2 Moto. 3 4 (No comments) 5 6 MS. HUTCHINSON-SCARBROUGH: Vern 7 Cleveland. 8 9 (No comments) 10 11 MS. HUTCHINSON-SCARBROUGH: Mr. Chair. 12 Vern reported he'd be on just in a little bit. Right now we do not have a quorum, we have four members 13 14 present and eight -- and four not. 15 16 Thank you. 17 18 CHAIRMAN BAKER: Thank you, Lisa. So 19 with that if we come to any action items that require a vote we'll just have to wait until we have a fifth 20 21 person. Next, we'll go ahead and do introductions and 22 I will call agencies and if you're in the room please 23 come up and state your name and who you're with for the 24 record and then we'll do over the phone after that. 25 26 So first do we have any tribal 27 governments, or ANCSA Corporations in the room. 28 29 MR. KIRK: Good morning, Mr. Chair. 30 This is Robbie Kirk with NANA. 31 32 CHAIRMAN BAKER: Good morning. Any 33 tribal governments or ANCSA Corporations over the 34 phone. 35 36 (No comments) 37 38 CHAIRMAN BAKER: Hearing none, do we 39 have anyone from U.S. Fish and Wildlife in the room. 40 41 MR. WIESE: Good morning. Will Wiese, 42 Selawik National Wildlife Refuge. 43 44 MS. SWEENY: (In Native) Brittany 45 Sweeny, Selawik Wildlife Refuge. 46 47 MR. CARER: Bill Carter, Fish 48 Biologist, Selawik National Wildlife Refuge. 49 50

1 MS. BROWN: Melissa Brown, RIT, 2 Selawik. 3 4 CHAIRMAN BAKER: And anyone over the 5 phone for Fish and Wildlife. 6 7 MR. HANDER: Yes, good morning. Ray Hander. The Northern Alaska Field Office in Fairbanks, 8 9 Fish Biologist. Thank you. 10 11 MS. KLEIN: Good morning. This is Jill 12 Klein, Regional Subsistence Coordinator with U.S. Fish 13 and Wildlife Service and I am based in Anchorage. Good 14 morning. 15 16 CHAIRMAN BAKER: Thank you. And we'll 17 move on to the National Park Service folks in the room. 18 19 MR. YOUNG: Good morning. Justin 20 Young, Resource Program Manager at Western Arctic 21 National ParkLands here in Kotzebue. 22 23 MR. FRONSTIN: (In Native) Raime 24 Fronstin, Wildlife Biologist National Park Service, 25 WAR, Western Arctic, sorry. 26 27 MS. FLOREY: Good morning. Victoria 28 Florey, National Park Service, Regional Office. I'm a 29 Subsistence Program Analyst. 30 31 MCPADDEN: MR. Ray McPadden, 32 Superintendent Western Arctic National ParkLands based 33 here in Kotzebue. 34 35 MR. DALLE-MOLLE: Joe Dalle-Molle, 36 District Law Enforcement Ranger, based in Kotzebue. 37 38 CHAIRMAN BAKER: Thank you. And anyone 39 with the Park Service on the phone. 40 41 MS. FRONSTIN: Good morning. This is 42 Martha Fronstin for the National Park Service in 43 Kotzebue, Compliance and Research Permitting. 44 45 MS. PATTON: Good morning. Eva Patton, 46 Subsistence Program Manager with the National Park 47 Service in Anchorage. Good morning. 48 49 MR. DOWDLE: Good morning. Mark 50

0160 1 Dowdle, Superintendent, Gates of the Arctic National Park and Preserve. 2 3 4 MS. OKADA: Good morning. This is 5 Marcy Okada, Subsistence Coordinator for Gates of the 6 Arctic National Park and Preserve based out of 7 Fairbanks. Good morning. 8 9 MR. JOLY: Good morning everyone. This is Kyle Joly. I'm the Caribou Biologist with Gates of 10 11 the Arctic National Park and Preserve. 12 13 CHAIRMAN BAKER: Thank you. Do we have 14 anyone with the Bureau of..... 15 16 MR. ADKISSON: Good morning. Ken 17 Adkisson, National Park Service, Nome, Alaska. 18 19 CHAIRMAN BAKER: .....with the Bureau 20 of Land Management in the room. 21 22 (No comments) 23 24 CHAIRMAN BAKER: Anyone with BLM on the 25 phone. 26 27 MR. SPARKS: Good morning, Mr. Chair. 28 This is Tom Sparks, Anchorage Field Office stationed 29 here in Nome. 30 31 CHAIRMAN BAKER: Good morning. Do we 32 have anyone with the Alaska Department of Fish and Game 33 in the room. 34 35 MR. HANSON: Good morning. Alex Hanson 36 here, Kotzebue, Fish and Game, Caribou Biologist. 37 38 MR. SPENCER: Joe Spencer, Division of Sportfish Fairbanks. 39 40 Good morning. 41 MS. OSBURN: Christie 42 Osburn, Unit 23, Area Biologist here in Kotzebue. 43 44 CHAIRMAN BAKER: And anyone with Fish 45 and Game on the phone. 46 47 MR. BURCH: Hello. This is Mark Burch 48 in Palmer. Good morning. 49 50

0161 1 CHAIRMAN BAKER: Thank you. Next it will be the Office of Subsistence Management for those 2 3 in the room. 4 5 MS. HYER: Good morning. Karen Hyer, 6 Office of Subsistence Management. It's too early. 7 8 MS. VOORHEES: Good morning. Hannah 9 Voorhees, Anthropologist with Office of Subsistence 10 Management. 11 12 MS. GILL: Good morning. Jessica Gill, 13 Council Coordinator with the Office of Subsistence 14 Management. 15 16 MR. PLANK: Good morning. Tom Plank, 17 Wildlife Biologist, Office of Subsistence Management. 18 19 MR. KRON: Good morning. Tom Kron with 20 OSM. Glad to be here. 21 22 MS. PERRY: Good morning. I'm DeAnna 23 Perry, Council Coordinator for Southeast Subsistence Regional Advisory Council. I work with the Forest 24 25 Service working with OSM. Thank you. Good morning. 26 27 HUTCHINSON-SCARBROUGH: MS. Good 28 morning. This is Lisa Hutchinson-Scarbrough. I'm the 29 Council Coordinator. Good morning. 30 31 CHAIRMAN BAKER: And do we have anyone 32 with OSM over the phone. 33 34 (No comments) 35 36 CHAIRMAN BAKER: Anyone with the 37 National Weather Service. 38 39 MR. BRETTSCHNEIDER: Good morning. Mv name is Brian Brettschneider, I'm a Climate Scientist 40 41 with NOAA National Weather Service. 42 43 CHAIRMAN BAKER: Do we have any other 44 agencies present in the room, or over the phone. 45 46 (No comments) 47 48 CHAIRMAN BAKER: And if there's any 49 members of the public in the room, feel free to 50

0162 1 introduce yourself now. 2 3 MR. SAMPSON: (In Native) Kotzebue. 4 5 MS. LOON: (In Native) Hannah Loon 6 resident of Kotzebue. 7 8 Thank you. And any CHAIRMAN BAKER: 9 members of the public over the phone. 10 11 (No comments) 12 13 CHAIRMAN BAKER: So before we get 14 started, do we have any members of the RAC who have 15 called in since we've been doing introductions? 16 17 MR. KRAMER: Yeah, this is Michael. 18 19 CHAIRMAN BAKER: Good morning, Mike. 20 So just let it show for the record..... 21 MR. KRAMER: Good morning. 22 23 24 CHAIRMAN BAKER: .....that Mike is over 25 the phone so we now have a quorum. With that, do we 26 have any housekeeping announcements, Lisa. 27 28 MS. HUTCHINSON-SCARBROUGH: Yes, good 29 morning, Mr. Chair and members of the Council. Again, 30 this is the Northwest Advisory Council meeting and 31 anyway I just reminded those in the room, if you have 32 not signed the -- your sheet, please sign it so we know 33 who's here. Anyway just -- Jessica's back there 34 holding it up -- smile -- so thank you. 35 36 For those of you who are online you can 37 get access to our materials, our meeting materials by 38 either just Googling Office of Subsistence Management 39 and hitting the region area and then you'll find 40 Northwest Arctic and -- or you can qo to 41 www.doi.gov/govern -- subsistence/regions. 42 43 And that's all I have, thank you, Mr. 44 Chair. 45 46 CHAIRMAN BAKER: Thank you, Lisa. Just 47 to remind everyone the next thing on our agenda for the 48 morning will be the public and tribal comments on non-49 agenda items and for any members of the public that 50

1 were hoping to make any comments throughout the rest of the day there are blue forms back at the table when you 2 3 first walk in the room just so that we have your 4 contact information so that we can followup with you 5 depending on what your comments or questions are about. And I do have Hannah Paniyayluk Loon who wanted to 6 7 address the Council. If you could state your name for 8 the record, Paniyayluk, the floor is yours. 9

10 MS. LOON: (In Native) Hannah 11 I live in Kotzebue. Paniyayluk Loon. And I am 12 originally from Selawik. All of my resources like 13 pike, whitefish, berries, greens, everything comes from 14 Selawik, of which were sent to me by my daughter who 15 know which slough to get pike, which slough to get different kinds of fish like (In Native) from the Fish 16 17 River, or late fall, setting the net for (In Native) 18 the big fish with the roe so all of those that I'm --19 that I learn, she learn and Selawik young people learn 20 where to set their nets and where to get their berries 21 and greens each year.

23 And it's good that -- thank you for 24 allowing me to speak this morning. I would like to request for some kind of a large gathering by all 25 26 entities in the region to discuss caribou. As I heard 27 it is hard to try to sign on people into the Council 28 and also with Cape Krusenstern. I was the Lone Ranger 29 in Cape Krusenstern when they were having meeting. And 30 we need to -- Cape Krusenstern is a vast area to do --31 thanks to National Park Service we had a meeting and it 32 was a learning experience to learn about the status of 33 the caribou. It was difficult on calling in and losing 34 people. That's one of the reasons we're losing people 35 from the audio. So my concern is signing people on who 36 are users and know the local knowledge of this area and 37 to be engaging with sportshunters here in Kotzebue and learn about them and learn about the State and Federal 38 39 Thank you. Because when you're not -- when laws. you're old and you don't -- the only information you 40 can get is by visiting the village and introduce 41 42 yourself to elders, they're not iPhone, Samsung, they 43 learn by hearing what people are doing in the village. 44 45 Thank you, very much. 46

47 CHAIRMAN BAKER: Thank you, Paniyayluk.
48 Walter, did you want to make a comment.
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0164 1 MR. SAMPSON: Taikuu. 2 3 (In Native) 4 5 MR. SAMPSON: Any questions from the 6 agencies? 7 8 (Laughter) 9 10 MR. SAMPSON: I don't think it's a 11 laughing matter. I use that as a way for you to 12 understand exactly how people feel out in the villages. 13 When you come with documents in regards to how you do 14 things and what you do, people don't understand what it 15 is that they have. 16 17 First of all I want to thank you, my 18 name is Walter Sampson, I'm representing myself. This 19 morning is critical for people to understand. This 20 region has the highest cost of living but yet people 21 try to go out and subsist to make sure that they will 22 have food on the table for their family to eat. 23 Sometimes it's hard to understand exactly what the 24 agencies want and how they want it recognizing that 25 people in Bush Alaska have no way of receiving the 26 documents that you're sending; 2, no way of 27 understanding exactly what those documents are; 3, have way of connecting to people who are sending 28 no 29 documents, which would have an impact on their way of 30 life. And that is the way it is today. That's why I 31 said it's not a laughing matter when I asked that 32 question. I was trying to use that analogy to make you 33 understand that people in Bush Alaska who are trying to 34 make a living to support their family have a hardest 35 time getting documents like these to understand and the 36 impacts it has on their way of life. 37 38 Just imagine 20 years ago, 15 years 39 ago, 500,000 caribou down to 166,000 now with that number as low as it's getting, the impact that people 40 41 will have when they're only allowed to take so much. 42 43 Inupiaqs in the region, as I was 44 growing up never really talk about being controlled by agency besides BIA and I know what that is. 45 BIA is 46 Bureau of Indian Affairs. BIA had their function and 47 basically tried to control people in a way that they 48 wouldn't allow people in school to talk Inupiat. Т 49 grew up in that environment. I stood in the corner 50

1 many times looking at a dot saying I will not speak Inupiat. That started off in that way. Now today's 2 3 world we see the effects that it has on people, on 4 their livelihood and it's a livelihood that people 5 really never experienced 50 years ago. People went out, they trapped, fished, hunt and they know what to 6 7 take, how much to take, they bring in what they can use and shared that with their family and friends at the 8 community level. In today's world we're restricting 9 10 people from take and impact on their way of life. And 11 it's something that we need to consider. If the 12 agencies are going to be here in Kotzebue, I would 13 suggest that you go out to the villages to hold village 14 meetings so people can understand exactly what you're 15 doing and how you're doing things. State of Alaska is 16 good at what it does today, it don't ask the people how 17 hunting will be done, they have a board that controls 18 that segment. Once regulations are put in place 19 without any consultation of a 70 year old man it's hard 20 for those people. 21

## Periodically I'll use one example.

24 Back in the '50s, our people, when they 25 go out to hunt they say I'm going out to hunt, they 26 don't say I'm going to go out and catch a caribou. 27 They go out to hunt whatever they can catch to feed 28 their family. About 40 years ago a 70 year old man 29 left Kotzebue to hunt, he went up the Noatak River, 30 went up into the mountain, he hunted and he saw some 31 sheep so he got a sheep to bring home to his family, he 32 got caught catching that sheep so the Park Service 33 confiscated that sheep, they confiscated his implements 34 he uses to hunt with. Something wrong with that 35 picture. When you have an impact on a 70 year old man who don't understand how laws are written, and, yet, 36 37 expect people to live by the way our laws are written 38 today. And it's a problem today. That's why I ask, if you're going to come to Kotzebue and you're going to 39 talk about the way of life of people in this region I 40 41 would suggest that you go out to the communities so 42 that people have their input in regards to what you're 43 trying to do. But you also need to fully make it clear to them what it is that you're doing. 50 years ago 44 when the Park Service first came they bring in a four 45 46 inch document that's used somewhere down south for 47 Monuments and Parks and expect those documents to be 48 used as management scheme in this region and it's hard 49 for people to understand what those documents are. We 50

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1 a responsibility as leaders. have have We responsibility as managers in agencies, whether you're 2 Park Monument, Fish and Wildlife, State of Alaska, BLM, 3 4 remember we're part of the United States, we're 5 American citizens just like anywhere else and we need to understand clearly what it is that you're doing 6 7 today that will have an impact on people's life and their way of life and it's sad to see that we look down 8 9 on people from the top end. And I think that has got 10 to be taken away. We're taxpayers. You're using part 11 of our tax money to do these things. And I think it's 12 time that we change that scheme to make sure that we 13 help people on doing what they need to do to live as a 14 community, as a family. 15 16 I didn't mean to take too much time. I 17 just want to make sure that you understand how people 18 live in the region and what they need to do to be part 19 of a discussion because it has an impact on their way 20 of life. 21 22 Several of you came from Park Service, several of you from Fish and Wildlife and several of 23 24 you from the State of Alaska. If you can come to 25 Kotzebue, there's no reason why you can't go out to the 26 communities so the villages would participate in the 27 dialogue and discussions on how their lives and way are 28 being impacted by rules and regulations. And it's 29 something that I wanted to bring together. I will have 30 some questions or comments at the end of the session 31 and I thank you very much. 32 33 MR. SHIEDT: Thank you, Walter. 34 35 MR. ARMSTRONG: Thank you, Walter. 36 37 MR. HOWARTH: Thank you, Walter. 38 39 CHAIRMAN BAKER: Thank you, Walter for your comments. Do we have anybody over the phone that 40 41 was hoping to make a public or tribal comment on non-42 agenda items. 43 44 (No comments) 45 46 Hearing none we'll go CHAIRMAN BAKER: 47 ahead and get started. We left off yesterday, we were 48 going to do the priority information needs with Karen 49 and Hannah. 50

1 MS. VOORHEES: Good morning, Mr. Chair. Members of the Council. Yesterday we heard from 2 researchers who are currently working on projects 3 4 funded by the Fisheries Resource Monitoring Program. And those projects came from priority information needs 5 that this Council identified previously. Now we're at 6 7 a spot in the cycle where it's time to finalize -- it's 8 time to finalize the next round of priority information 9 needs. 10 11 The result of today's discussion, that 12 list of information needs will be combined with 13 information needs that the North Slope Regional 14 Advisory Council identified and the Seward Peninsula 15 Regional Advisory Council identified as the basis for 16 upcoming research in the next four years. 17 18 We can work through these one by one 19 and make any final edits as you see fit. Please see 20 the list of draft priority information needs on Page 38 of your meeting book. I'll recommend that after we've 21 reviewed these the Council put forward a motion to 22 23 approve the list and at that point it will be 24 finalized. 25 26 So first I'll read through the whole 27 list and then we can go back one by one and I'll pause and see if you would like to approve that one and move 28 29 on or add anything, make any edits. 30 31 The first priority information need on 32 your draft list is to inventory -- is inventory and baseline data of fish in major rivers tied to 33 34 subsistence use in Northwest Alaska. When possible 35 applicants are encouraged to include fisheries close to 36 the communities of Buckland, Deering, Kivalina and 37 villages along Kobuk and Noatak Rivers. 38 39 Second. Evaluate changes in water 40 temperature and resulting low oxygen in major river 41 systems associated with subsistence fisheries in the 42 Northwest Arctic region and how these changes will 43 affect fish vital for subsistence. 44 Third. The effects of expanding beaver 45 subsistence 46 populations and range on fisheries 47 including whitefish in the Northwest Arctic region. 48 Include effects of dams on fish migration and effects 49 of changes to water quality on fish health. I'll note 50

0168 1 with this priority information need there may be some research that has recently begun that would cover this 2 and I think Karen will be able to speak to that more as 3 4 we're reviewing these individually. 5 6 The next PIN is to document herring 7 abundance, seasonal movements and health and 8 investigate causes of herring die-off events in the 9 Northwest Arctic region. 10 11 Next. Document the effects of changing 12 river and tributary conditions on salmon spawning in 13 the Noatak and Kobuk River drainages with focus on the 14 potential effects of increased rain on spawning 15 viability. 16 17 Next. Changes in species composition, 18 abundance and migration timing especially of Dolly 19 Varden, lake trout and whitefish species in the 20 Northwest Arctic to address changing availability of 21 subsistence fishery resources. 22 23 And, finally, identify the spawning 24 areas, critical habitat and range expansion in major 25 rivers tied to subsistence for broad whitefish, least 26 cisco, northern pike, salmon, grayling and Dolly Varden 27 in the Northwest Arctic region. 28 29 I will note that when finalizing your 30 PINS there's always a balancing act in which if there 31 are information needs that you'd like to prioritize you 32 may want to think about shortening your list a bit so 33 that the focus of any applicants will fall on those 34 most important PINs to the Council. 35 36 Thank you. 37 38 So next I will go through each one 39 individually and we can -- Karen will join me -- my Fisheries Biology colleague from OSM will join in me 40 41 and see if there are any edits you'd like to make. 42 43 So, again, the first PIN, and PIN 44 stands for priority information need is to -- inventory and baseline data of fish in major rivers tied to 45 46 subsistence use in Northwest Alaska. When possible 47 applicants are encouraged to include fisheries close to 48 the communities of Buckland, Deering, Kivalina and 49 villages along Kobuk and Noatak Rivers. 50

1 MS. HYER: Mr. Chairman. Council members. One thing I'd add to this PIN is you notice 2 Selawik isn't in this PIN and I think that should be 3 4 added to the PIN. It's up to you but I would recommend 5 adding it. 6 7 MR. SHIEDT: So you're asking us to 8 request that you put the Selawik report in this? 9 10 MS. HYER: So, yeah, the communities 11 that are listed are in this area except Selawik's not 12 there and so it seems like it also should be on the 13 list. 14 15 CHAIRMAN BAKER: Yeah, thank you, Karen. I think one thing that I have about this first 16 PIN is it's very broad and pretty open-ended. 17 And 18 while getting that inventory and baseline data would be 19 good and if it were to be kept, yes, include Selawik, 20 my issue is it's so broad it takes away from the more 21 specific PINs that potentially we might want to 22 emphasize more. So I would just say if we do keep this 23 PIN to go ahead and add Selawik to it. 24 25 MS. HYER: Mr. Chairman. I just want 26 to make a couple comments for your consideration. 27 Sometimes we write these PINs broad so we can attract 28 more investigators because sometimes if things are so 29 specific we can't get investigators because they might 30 have a little bit different expertise or a little bit 31 different of an idea. So as we go through this list 32 you'll see things, especially when we get down a couple 33 PINs and I'd like to bring up the whole idea of the 34 pretty water we talked about yesterday, you'll see the 35 PIN I think it will fit in is pretty general. So I 36 just want to communicate that as an idea. 37 38 But I also think it is important if 39 there are areas that you think the research is more 40 important than others you may want to narrow your PIN 41 list because that also helps guides the investigators. 42 Because when they look at this list and there are 10 43 PINs on it there's no way for them to understand what's 44 most important to the Council but if there are five PINs on it. So, you know, it's the same thing, so 45 46 you're telling them these five are the most important 47 so I also just wanted to bring that up for your 48 consideration. 49

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0170 1 So we could go through them all and then we could go back and revisit and you could take 2 3 out ones, I don't know how you feel is best to work 4 through them. 5 6 CHAIRMAN BAKER: Any thoughts from 7 members of the RAC. 8 9 (Teleconference interference 10 participants not muted) 11 12 I'm trying to understand MR. SHIEDT: 13 what you're saying is this and we all know -- we all 14 know this, that abundance needs is different, the temp 15 of the water in the rivers and the drainages affect the fish and the way I'm trying -- I'm trying to translate 16 17 what you're saying to something I could understand. If 18 the numbers are low in fish you might want to close it, 19 but you got to understand if the water cool off the 20 fish will come. And what I'm trying to say is this, there's no fish in this drainage, you'll say that, 21 22 let's close it, but later on, a week later when the 23 temp get cold, because the weather in the land, sea and 24 air affects our resources completely. The water controls the fish a lot. The air controls the geese 25 26 and others. And it's really hard for me to say your 27 abundance of certain species and timing and you're somebody in the office that don't know what they're 28 29 doing and is trying to say well there's no fish let's 30 close that area. But we need to keep our fish open at 31 times and I'm trying to understand what you're saying. 32 But that's what I'm getting so far from you, your abundance, different timing, if they're not there at 33 34 certain times. Correct me if I'm wrong. And I hope --35 I'm trying to understand what you are saying. 36 37 (Teleconference interference 38 participants not muted) 39 40 CHAIRMAN BAKER: So.... 41 42 MR. SHIEDT: Rephrase it in my language 43 may be better. 44 45 CHAIRMAN BAKER: So I think for this first one, Attamuk, and correct me if I'm wrong, what 46 47 they're looking for is having this as an option so that 48 someone can spend the whole season out in a creek or in 49 the Delta, so it's not everything everywhere all at 50

0171 1 once, it's narrowing it down so that they can get the baseline information needed to know what's at the creek 2 on the other side of Kivalina, to know what's in the 3 4 Buckland River, what the baseline is so that it's open 5 for people to do these investigations and research 6 where they need to. 7 8 Is that accurate ladies? 9 10 MS. VOORHEES: Through the Chair. Yes. 11 Thank you. And I also wanted to add that the Fisheries 12 Resource Monitoring Program is -- it's designed and 13 founded on the idea that we need to draw on traditional 14 ecological knowledge and harvest monitoring, it's 15 designed to be inter-disciplinary that's why we have anthropologists and biologists working on it and -- and 16 17 any project that draws those two knowledge systems 18 together would most likely do very well in the way it's 19 reviewed by the Technical Review Committee. If there's 20 any priority information need where we need to add 21 greater emphasis to integrate traditional ecological 22 knowledge about the variability throughout the year 23 then we could certainly do that in the wording. 24 25 I think the intent of this one, and I 26 do want to mention that these priority information 27 developed in conversation with Bobby needs were 28 Schaeffer over the summer and they're certainly 29 supposed to come from the Council so if there's 30 anything that you disagree with we can remove that, but 31 the intent of this one is really to create a baseline 32 so that if development impacts, climate change are concerns in the future that you have that snapshot, 33 34 that baseline knowledge of a system. 35 36 Thank you. 37 38 CHAIRMAN BAKER: Any thoughts for this 39 first one. Wilbur. 40 41 MR. HOWARTH: Mr. Chair, thank you. We 42 are in a time right now that this weather, the climate 43 change and when we're out in the springtime waiting for the whitefish to come out of the lakes and we're trying 44 to put away and dry whitefish and it's cold. We don't 45 46 have -- maybe some days we'd have two to three warm 47 days that would help dry our fish and stuff but with 48 this climate change and stuff now we're missing the 49 spawning whitefish and stuff going up the river. 50

1 They're going up early and the water is so high all summer, all fall so most of us really didn't get a 2 3 chance to get our whitefish and stuff. Usually we 4 would get them first part of October when it freezes. That was usually, that was maybe five or six years ago, 5 we'd be setting nets already under the ice for the 6 7 spawning whitefish because they're full of eggs and that's what we really live on is the nice big (In 8 And now 9 Native) they are called, the whitefish. 10 everybody's having a hard time and it's continuing 11 every year. We don't know when the fish are going to 12 move. Springtime we usually have a -- we know when 13 they're supposed to be coming out. 14

15 I missed pike, most of us did because 16 we didn't even know when they came out of the lakes or 17 anything. I didn't really get any pike to dry this 18 spring. We didn't know what happened, the weather is 19 so warm now days. I was happy to set net just a few 20 days ago under the ice and that's really late. But you 21 could see salmon in November and they're black, I mean 22 they're just black salmon in the net underneath the ice 23 in November. And usually I don't fish up to November. 24 When we catch the fish we just do maybe two days of 25 fishing. I do anyway, that's enough to put away for 26 the winter. But right now we're all -- most fishermen 27 and springtime when we need to dry and put away our 28 fish, we just don't know when the fish move so the 29 weather, it's just a real confusing -- and we can't be 30 out there all the time, we have to work sometimes, you 31 know.

Thank you, Mr. Chair.

35 CHAIRMAN BAKER: Thank you, Wilbur. So 36 I think with that for this first PIN we could do a 37 couple things. Add in Selawik to the list of 38 communities, and add in some kind of wording to where 39 traditional knowledge must be referred to and work with local folks. Just because as it seems it's kind of a 40 41 detached statement but putting some kind of emphasis on 42 working with local, traditional subsistence users and 43 learning traditional methods and when they're going for 44 certain types of fish and that kind of thing, it would 45 make it a little more specific to what folks in the 46 region would want to see I think. 47

48 MS. VOORHEES: Thank you, Mr. Chair. 49 And thank you for your comments. I -- yes, we can 50

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1 certainly do that. And I think that some of the wordsmithing to get that in there exactly how we want 2 it -- how you want it, doesn't need to be done right 3 4 here, right now, but we can certainly capture that 5 central idea. And I think that would really improve this PIN because it sounds like -- like what I'm 6 7 hearing is that, you know, the baseline has already shifted and we need that traditional knowledge to make 8 9 that clear. It's fundamentally a hybrid project so 10 thank you for that. 11 12 MR. ARMSTRONG: I know a bunch of years 13 ago there was a study done that gathered information 14 from traditional users around this region to determine 15 what was caught, how it was caught, the timeline of when they set their nets or fish traps. It was done by 16 the Northwest Arctic Borough. They have information on 17 the type of fish, the area where it was caught but not 18 19 pinpointed to make it a hotspot of information to 20 people that are non-subsistence users. But they do 21 have information. Like I'm assuming that this is 22 trying to get, the same information, they already have 23 it at the Northwest Arctic Borough. Is that the point 24 of this PIN, to have that information for the Federal 25 side? 26 27 MS. VOORHEES: Through the Chair. 28 Thank you, Council Member Armstrong. What I'm hearing 29 is that there's been extensive documentation of 30 traditional knowledge about fish in this region 31 previously and certainly I'm also aware of some of that 32 literature and we wouldn't want to reinvent the wheel. 33 That knowledge was documented at an earlier time that 34 might more accurately reflect baseline conditions so we 35 may just want to also add a couple words emphasizing, 36 you know, inclusion of previous literature and 37 documentation of traditional knowledge so we're not 38 reinventing the wheel there. Does that accurately 39 reflect your concerns? 40 41 MR. ARMSTRONG: All right, thank you. 42 43 MS. VOORHEES: So, Mr. Chair, if we're 44 agreed I could move on to the next priority information 45 need. 46 47 CHAIRMAN BAKER: Mike, do you have any 48 comments on this first one on Page 38 that you'd like 49 to make. 50

0174 1 MR. KRAMER: No, I don't see anything. 2 3 CHAIRMAN BAKER: Thank you, Mike. Have 4 any other members of the RAC, Vern or Calvin or Bobby 5 called in since we've gotten started. 6 7 (No comments) 8 9 CHAIRMAN BAKER: So hearing..... 10 11 MR. CLEVELAND: Yeah, I'm on but I 12 don't have anything, thank you, Mr. Chair. 13 14 CHAIRMAN BAKER: All right, thank you. 15 For the record can we please note that Vern Cleveland is on the phone. So if there's no other comments or 16 17 discussions for this one we can move forward Hannah. 18 19 MR. ARMSTRONG: Real guick, I just 20 wanted to ask, is there language in there to identify 21 if there's brown (ph) water existing or not in that, or 22 not? 23 24 MS. HYER: Mr. Chairman. Council 25 There's not in the first PIN. I think the members. 26 second PIN is where we might want to work that in so we 27 address it in that PIN and then if we're not can 28 satisfied we can go back but we can also work through 29 and then take a look at the whole and if there's things 30 you want to change we can revisit. That's why last 31 night when we said we thought it'd take a while, it has 32 with our other Councils taken a while to work through 33 these so. 34 35 MR. ARMSTRONG: All right, thank you. 36 37 MS. VOORHEES: I'd also like to note that we have -- if we look down the list there are a 38 39 couple PIN -- other PINs that are influenced by 40 concerns related to climate change and so we may 41 integrate some of the concerns that we're hearing at 42 those PINs. And also I've got a note from one of our 43 colleagues who's in the audience here and she's 44 suggesting that based on the conversation and comments 45 from Council Member Howarth and Armstrong that with the 46 first priority information need, you know, it would be 47 possible to add something about changes in timing and 48 access for subsistence fisheries with an emphasis on 49 pike and whitefish and particularly changes in timing 50

0175 and access that are influenced by climate. So I'm not 1 sure if that would be -- I'll leave it up to the 2 Council to think about those suggestions so I'll turn 3 4 it over to you, Mr. Chair. 5 6 CHAIRMAN BAKER: Thank you, Hannah. Т 7 think what would be best at this time is if we make the additions that have been brought up so far prior to 8 that and then kind of as you mentioned, leave it open-9 10 ended just since there's other PINs that talk about 11 pike and whitefish and this and that. So for this one 12 we can leave it to the inventory and baseline and leave 13 it kind of what it started as rather than changing it 14 to reflect ultimately what's already in a different 15 PIN. So I think with that we could just move on to the 16 next one. 17 18 MS. VOORHEES: Thank you. The next PIN 19 is -- deals with concerns about water temperature. It 20 reads: Evaluate changes in water temperature and resulting low oxygen in major river systems associated 21 22 with subsistence fisheries in the Northwest Arctic 23 region and how these changes will affect fish vital for 24 subsistence. 25 26 (Teleconference interference 27 participants not muted - on hold) 28 29 MS. VOORHEES: It does read currently 30 salmon, whitefish, northern pike and other fish vital 31 for subsistence. 32 33 Mr. Chairman. Council MS. HYER: 34 I'm going to jump in here and just say a members. 35 couple things and then just listen to your discussion. But it does have salmon, whitefish and northern pike 36 37 and then we had other fish vital for subsistence so 38 you're welcome to leave those or it can be fish vital 39 for subsistence. Because when our investigators submit 40 proposal and it goes to the Technical Review а 41 Committee, they're looking for what's vital to 42 subsistence and the statistics that go along with that 43 because we monitor harvest and so we have a general 44 And that's part of submitting a good proposal, idea. is, doing the research and knowing what's going on and 45 46 then building upon that and that's what we rely on our 47 Technical Review Committee to kind of filter. Because 48 if we get a proposal that hasn't done the research then 49 it's not a good proposal but you're welcome to put 50

0176 1 specifics in or make it more general. That would be the wish of the Council. 2 3 4 I do think this is the PIN where we can 5 talk about fish habitat and water quality and maybe 6 even relate it to climate in the rivers and bring in --7 because then that would allow the investigators to go and look for the issues we're seeing with the pretty 8 water. And I'd make it general because of that. 9 One 10 thing I do is when investigators call me I always refer 11 them to the transcripts because these discussions are 12 very valuable and so I leave it up to you. We can be 13 way more specific about the mineral deposits if you 14 want, we can be more general because I feel like in 15 these rivers there may be even more. While the mineral deposits are very visible to us, there may be more 16 17 things that we need to understand about what's 18 happening there for the health of our fisheries. So 19 those are just a couple comments for you to consider. 20 21 MR. HOWARTH: Mr. Chair. Is Bob 22 Schaeffer on because lots of this, the temperature 23 change and stuff, the people ask me, what's going on, 24 why are the fish dying and bellying up on the Kobuk 25 Lake and stuff. 26 27 (Teleconference interference 28 participants not muted - on hold) 29 30 MR. HOWARTH: Because they got into 31 cold water -- from warm to cold and they just go into a 32 shock. I mean water temperature in areas -- if a fish 33 hit from warm to cold they'll just belly up and -- they 34 just go into a shock and they'll be moving, I mean I've 35 seen them struggling and poor fish, but this water 36 temperature that comes out of nowhere and a couple 37 days, it'll shock the fish -- I mean we see -- I've 38 seen lots of fish that are 39 -- you know because of the change of the weather in two or three days it'll shock the fish and stuff. Because 40 I grew up along all these drainages and I do a lot of 41 42 subsistence so -- and I've seen all this. And Bobby 43 Schaeffer would have a real good, clear say about water 44 temperature and what the fish are doing right now and probably know where they're going. 45 46 47 Thank you, Mr. Chair, and Karen. 48 49 CHAIRMAN BAKER: Thank you, Wilbur. 50

0177 1 Any other comments or questions from members of the 2 RAC. 3 4 MR. ARMSTRONG: I think it'll be 5 important to understand the water temperature because I 6 probably seen or heard some talk about the temperature 7 of the ocean determining arrival of salmon into the 8 rivers. 9 10 (Teleconference interference 11 participants not muted - on hold) 12 13 MR. ARMSTRONG: So I think this would 14 be good to study and discuss the changes that are 15 happening that way it'll be documented for other generations of people that are going to be sitting in 16 17 my seat some day. 18 19 Thank you. 20 21 CHAIRMAN BAKER: So with that, how do we feel about adding in some of the language regarding 22 23 mineral deposits to this one. This is really the only 24 PIN out of the list we have that kind of deals with 25 that kind of stuff, so that they can get the language 26 in so that we can learn more about the water changing 27 colors and stuff. Do we want to have that added in? 28 29 MR. ARMSTRONG: Yes, I believe that 30 would be good information to have documented because 31 this region is very important to our subsistence uses 32 and to have it documented would be good. Thank you. 33 34 CHAIRMAN BAKER: Thank you, Elmer. Go 35 ahead, Attamuk. 36 37 MR. SHIEDT: The other effect, I think, 38 is happening to our fish, in our drainages, we get so 39 much less snow now and less rain, and low in the water will shock our fish, there's so many fish and the water 40 41 is lower than the regular high water we used to have. 42 Normal water just go down, and I think that's what's 43 affecting our fish dying off, they have to have to have so much water to have oxygen, and the other effect will 44 45 be, like I say, we have just low water, not enough 46 snow. 47 48 CHAIRMAN BAKER: So if we could add in 49 something along the effect of over time water levels 50

0178 1 and changes in the amount of water in the streams, creeks, rivers. 2 3 4 MS. HYER: Mr. Chairman. Council 5 I think that's a great idea. And I think I members. put in something because of the changing climate, kind 6 7 of roll that whole -- in because there are water levels there might be other things that we're not 8 but 9 realizing yet that could be affecting climate, so water 10 levels and other changes because of the climate. 11 12 MR. SHIEDT: Because when we had a big 13 die-ff about 25 years ago a couple of elders when I was 14 at Maniilaq told me that, from by Adams' house down 15 there all the way I hired -- when I was with Maniilaq I hired a couple people, we went all the way to Little 16 17 Noatak and there was a lot of dead fish. And the guy 18 that -- an elder that lived at Little Noatak tell them 19 the reason why they're dying off Attamuk, Kobuk Lake, 20 the water level is low, there's so much fish, and that's why they're dying off. That's why I'm saying. 21 22 23 And another elder from Kot -- two of them tell me that, the same thing, here, the water level in Kotzebue is low, that's why they're dying off, 24 25 26 so water level affects our fish completely. And if 27 there's so much -- just like -- they need that oxygen. 28 IF there's too many fish in a confined area they will 29 run out of oxygen, that's what they were telling me. 30 31 Mr. Chairman. MS. HYER: Council 32 members. I also have a question about -- so right now we have salmon, whitefish, northern pike and then other 33 34 fish vital for subsistence, do you feel like we should 35 leave it with those specific fish species in there, is 36 that how you'd like it worded or do you want it more 37 general? 38 39 CHAIRMAN BAKER: I think given our 40 conversations from yesterday regarding whitefish, using 41 the term, whitefish, it's still fairly broad as well as 42 salmon and northern pike and other fish vital for 43 subsistence so I don't think we would need to change 44 that. 45 46 Any other comments or questions for 47 this second PIN or do we feel ready to move forward. 48 49 (No comments) 50

0179 1 CHAIRMAN BAKER: We can go ahead and 2 move to No. 3. 3 4 MS. VOORHEES: The next PIN is: The 5 effects of expanding beaver populations and range on subsistence fisheries including whitefish 6 in the 7 Northwest Arctic region. Include effects of dams on fish migration and effects of changes to water quality 8 9 on fish health. 10 11 MS. HYER: And, Mr. Chairman and 12 Council members. I do have one comment to make on this 13 PIN and then I'll be here to hear what you have to say. 14 But we've heard about an investigator working in the 15 area and I'm wondering if this is a PIN we maybe want to put on hold until we see what research is done so we 16 17 can better tailor this pin moving forward. 18 19 It's just a comment. 20 21 CHAIRMAN BAKER: I think for sure 22 there's a lot of people wanting to know more about the 23 effects of beaver now that we have rising numbers of 24 beaver in the area. Given if there's somebody working 25 on something right now, it might be good to hold off so 26 that we can, as Karen mentioned, kind of tailor this 27 one a little better once we know a bit of baseline 28 information on the effects of beaver. What do the 29 other RAC members think? 30 31 (No comments) 32 33 CHAIRMAN BAKER: Mike or Vern do you 34 have any questions or comments for this one. 35 36 MR. HOWARTH: Mr. Chair. The beaver is 37 so abundant right now. A lot of our year-round campers 38 are fishermen that live off whitefish and stuff. The 39 beaver is really a big problem right now in the Lower 40 Kobuk, the drainages, even over here toward -- we call 41 Feed Our Creek Area, Oogrukvik, which is right there at 42 the (In Native) area. So there's so much beaver right 43 they're really damming up the lakes and the now 44 whitefish and stuff has to come out. I mean the beaver are so many that I'm hoping that we have a lot of 45 46 trappers. I know Lance show his boys how to trap and stuff, you got to send all your boys and his buddies 47 48 over that way, get rid of some of these beavers. And 49 they are huge houses now. I mean these beaver are real 50

0180 1 serious when they build dams and their igloos are huge. You could go stand on top of them and it's just a huge 2 big -- there's so many beaver right now we need to do 3 4 something. I know Selawik did go 30 beaver per person and that was in the '80s, maybe 1984/85, they put, 5 because of the beaver, there is so much beaver we had 6 7 to do something. And the Fish and Game was -- I'm glad they did that and it helped the fish, the whitefish, 8 9 because they need to come out of those lakes and if you 10 fly from Noorvik to Kotzebue you could see how much 11 lakes and how much fish are there. I mean it's just 12 beautiful for fish but there's so much beaver now, we 13 need to work on trying to eliminate some of the beaver. 14 Because it never used to be -- they never used to be 15 down here in the lower Kobuk River area. We never really had beaver but now they're here. 16 There are so 17 much. Attamuk probably knows about beaver now, too, 18 although he's been right at the coast but they're 19 around. 20 21 Thank you. 22 23 CHAIRMAN BAKER: I don't know which mic 24 you'll use but Brittany, do you have something you want 25 to add? 26 27 MS. SWEENY: Yeah, thank you, Mr. Chair 28 and members of the Council. As someone who has sat in these meetings for a lot of years and I've heard 29 30 concerns about beavers shared for a lot of years, when 31 I read this draft priority information need, it talks 32 about beavers and the effects on the fish but one thing 33 I don't see included is the effects on the people that 34 are trying to harvest the fish, right. So I think if 35 you talk to fish scientists they often say, oh, the fish can adapt, they can move around from the beaver 36 37 dams but there's -- I think it would also be 38 interesting to document or talk about the effects on 39 people and subsistence fisheries, you know, access to traditional fishing areas that's harder to come by and 40 41 fish net setting and so on. And so possibly if you do 42 choose to keep this PIN, you could add some language 43 that, you know, documenting the effects on subsistence 44 use and access. 45 46 Just a thought. Thank you. 47 48 And for the record this is Brittany 49 Sweeny speaking. 50

0181 1 CHAIRMAN BAKER: Thank you for that 2 Brittany. Any questions or comments following up on 3 that. 4 5 Attamuk. 6 7 MR. SHIEDT: Yeah, beaver affects the 8 fish two ways. As a Native we know it. When the fish 9 going to leave the drainage and if the beaver block the 10 creek he can't go out to do what he usually do to 11 survive for the next year. And the other way that they affect it is when they block the creeks they can't go 12 13 into the lakes to spawn. So beavers are affecting us 14 twice, our fish twice, going out and going back into 15 the lakes. I know it's a thing, something we talk about but, really, we can't do anything about it. But 16 17 when they first started coming I remember Fish and Game 18 said they're good for the environment, they're good for 19 Before they say anything they should have moose. 20 investigated and talked to the Natives and say what would the effects have been on so if they keep damming 21 22 those creeks we're going to run out of fish of any 23 species, not just whitefish, all the four different 24 kinds, the herring and everything else. 25 26 CHAIRMAN BAKER: So with all of these 27 PINs that we have based on what we're hearing, there should be something in each one regarding working with 28 29 traditional subsistence users and if you look at some 30 of the North Slope PINs, like the very first one says, 31 using traditional ecological knowledge and harvest 32 monitoring, so if we could just add similar language in 33 to all of these PINs because I think that's going to be 34 the big thing with all of them since it's been the big 35 thing with each of them, is including that whoever is research that they consult with local 36 doing the 37 subsistence users on what the effects of each thing in 38 the research is aimed at. 39 40 MS. VOORHEES: I think that would be an 41 excellent addition. Thank you for that feedback and 42 we'll do that. 43 44 MS. HYER: And during the evaluation process of the Fisheries Resource Monitoring Plan, one 45 46 of the five criteria is partnerships and capacity 47 building and consultation comes in there and so we 48 actually require our investigators to consult because 49 that's part -- that's what makes our funding source 50

0182 1 unique is it's just not to do the science, it's to also engage the local users too. 2 3 4 MR. ARMSTRONG: Yeah, we have so many 5 subsistence users that go to camp and when I think about beavers I'm thinking about the subsistence users 6 7 water supply being affected by giardia because there's so much beaver and we have so much users that go to 8 9 camp to catch whitefish, pike to make a supply of 10 winter food and just having the beaver in thearea is --11 I worry about their safety on drinking water. 12 13 Thank you. 14 15 CHAIRMAN BAKER: Any other questions or 16 comments for this third PIN regarding beaver 17 populations. 18 19 (No comments) 20 21 CHAIRMAN BAKER: So with that I think 22 we can move on to No. 4. 23 24 MS. VOORHEES: Mr. Chair. You would 25 like to keep this PIN on the list this cycle or would 26 you like to pause it, it sounds like there's a lot of 27 interest in it. I will note that I, along with my 28 other colleagues at OSM, can reach out to Ken Tape, who 29 I believe is the investigator working on the beaver 30 research and ask that he present to the Council at a 31 future meeting. That might be useful. 32 33 CHAIRMAN BAKER: So do we want to keep 34 this one in or kind of table it so that this current 35 study can be completed so that information can be used 36 for future studies and expedite the process. 37 38 MR. ARMSTRONG: Real quick. Is the 39 investigator doing it in this area? 40 Mr. Chairman. 41 MS. HYER: Council 42 members. Yes, I believe so. 43 44 MR. ARMSTRONG: Thank you. 45 46 MS. HYER: And I'd like to add, whether 47 you table it or not we've heard some really good 48 comments here so we will be reworking the PIN and it 49 will either stay or it will sit and come back maybe in 50

0183 1 two years but we will include your comments. 2 3 MS. HUTCHINSON-SCARBROUGH: Mr. Chair. 4 Council. This is Lisa, the Council Coordinator. Just annual report replies from the Federal 5 in the Subsistence Board, just a little bit of information. 6 7 Ken Tape, he's with the University of Alaska-Fairbanks and he's been -- just started a five year project 8 studying beaver range expansion in the Arctic Alaska 9 10 [sic] and the impacts it will have. So I know it's in 11 this region but not specifically in the Northwest, it kind of covers the whole Arctic it sounds like. But we 12 13 could reach -- I'm happy to reach out and have him give 14 a report to you this next meeting. I'm sure he'd be 15 happy to present. That doesn't mean that you can't still put out a proposal if you would like to do more 16 17 research on them as well. 18 19 Thank you. 20 21 CHAIRMAN BAKER: Thank you, Lisa. Ι 22 think if we could have Ken present on what he's got so 23 far at our next meeting that we'd be good and given 24 that it's more of a big picture Arctic expansion rather 25 than Northwest Alaska specific, I think with that I 26 think it'd be best that we keep this one in, so that 27 something specific to this region can get rolling. 28 29 What does the Council think of that? 30 31 MR. HOWARTH: Mr. Chair, this is 32 This information and stuff is -- see we --Wilbur. 33 when we hold an IRA meeting with the public I would --34 Brittany would be a good one, if she had this 35 information to bring up where I probably could already 36 have gathered a bunch of the subsistence users --37 because camp next to a whole bunch other people that 38 fish during the spring and we dry whitefish and stuff 39 and they always say there is so much beaver, what could 40 I mean beaver now is a big problem for us we do. 41 subsistence people staying out at camps and trying to 42 dry fish and put away for the winter. And I think this 43 one, we should get more information, keep it open I would say and get more information from the users. 44 45 Because I mean the lower Kobuk, the Delta area is so 46 wide-spread that we have camps all over the place and 47 they're always talking about beaver. So I think we 48 should have more -- I mean your investigators will know 49 exactly where to go if we tell them. 50

0184 1 Thank you. 2 3 CHAIRMAN BAKER: Mr. Ologist, if you'd 4 like to come up. 5 6 (Laughter) 7 8 MR. CARTER: Hi, this is Bill Carter, 9 the Fish Biologist at Selawik National Wildlife Refuge. I had to look it up to make sure that I was correct in 10 11 this but Ken's work was -- there was work done on the 12 Refuge itself, he did mostly satellite imagery to count 13 the prevalence of dams mostly, not necessarily lodges 14 and lakes and things, but dams especially in the higher 15 mount -- or higher elevation streams, but his five year study is in this region, including some stuff in the 16 Noatak Preserve, I believe, with some USGS people so he 17 would be a really good person to have talk at the next 18 19 meeting on beaver because it is -- his interest is in 20 the entire Arctic, but he's done -- his most recent stuff has been done here in the Northwest Arctic 21 22 Borough, especially on the Refuge so. 23 24 CHAIRMAN BAKER: Thank you, Bill. 25 Justin. 26 27 MR. YOUNG: Justin Young with the Park 28 Service here in Kotzebue. Later in the agenda we have 29 a Kobuk Valley SRC update. As part of that I was going 30 to bring up the SRC's concerns about beaver and that 31 I've already reached out to NPS and USGS Staff who have 32 been doing the research in this region and they are 33 going to be giving a presentation and they can give a 34 presentation here as well. 35 36 CHAIRMAN BAKER: Thank you for that. 37 So I think for the purposes of this agenda item I think we all agree that we should keep this one on but just 38 39 in the meantime have Ken Tape come and speak at our next meeting and look at different organizations that 40 41 have some information on this just because it is kind 42 of a hot topic. 43 44 MS. VOORHEES: So we'll keep this priority information need and as I understand it, we 45 46 will add a clause about consulting with local knowledge 47 holders about where the beavers and the impacts are 48 most noticeable and we'll -- the nuances of the effects 49 they're having might be. And then we also need to 50

0185 1 include documentation of the affects on subsistence users. Does that sound accurate? 2 3 4 CHAIRMAN BAKER: Yes. 5 6 MS. VOORHEES: Thank you. With that we 7 can move on to the next PIN, which is: document herring abundance, seasonal movements and health and 8 9 investigate causes of herring mortality events in the 10 Northwest Arctic. 11 12 MR. HOWARTH: Yeah, Mr. Chair, I wish 13 Bobby was here. He knows and do well the studies and 14 stuff that he does with the University of Fairbanks I 15 believe. And these herring are really being pushed into Yorks Bay now. I mean I never heard so much seals 16 17 and oogruk growling over a little space right at the 18 mouth of Theodore Creek and hear they're chasing in the 19 herring. The herring are really going to be -- we're 20 going to have seals and stuff all the way up our 21 rivers, we already seen them as far as above Kiana. So 22 you know herring is going to be a big challenge now to 23 monitor I would say. 24 25 Thank you. 26 27 MS. HYER: Mr. Chairman. Council 28 I just want to remind the Council of where members. 29 our jurisdiction is. So our Federal lands are the Park 30 and the Refuges and we have no jurisdiction in the 31 marine environment except for a few areas around 32 Kodiak. So if you left this PIN on this list it would 33 be somewhat limited as to where our jurisdiction is and 34 what our researchers could do with our funding, given 35 that we can't do research in the marine environment 36 just because that jurisdiction does not belong to us. 37 38 CHAIRMAN BAKER: Any questions or 39 comments. I see Brittany has her hand up. 40 41 MS. SWEENY: Thank you, Mr. Chair. Т 42 guess I would comment that, you know, at Selawik Refuge 43 we -- one of our purposes is protection of sheefish but 44 we also know that sheefish, which are real important, feed on herring and other small fish. And so while 45 46 we've worked to understand the sheefish population, we 47 don't understand the whole food web that supports the 48 sheefish so I don't know, this is a Karen maybe too, 49 but the herring are coming in to spawn in this area, 50

1 right, so if we understand where their spawning grounds are, it's not the marine environment, is that true? 2 I'm just thinking about the -- you know 3 115 4 understanding the whole system. 5 6 Thank you. 7 8 MS. HYER: Mr. Chairman. Council Yeah, I do agree with that Brittany, it's 9 members. just somewhat limited because herring are a marine --10 11 are in the marine world, too. And so certainly you 12 could pair with an investigator it's just the amount we 13 can do with our resources is somewhat limited. 14 15 CHAIRMAN BAKER: So I think with that 16 said this kind of falls along the same lines as the beaver PIN that this would be good to have so that if 17 18 there's any future studies done from a different 19 funding source, they would have this as a baseline 20 where they could use it to help further their 21 investigations. Do we want any changes or any comments or questions about this one for herring. 22 23 24 (No comments) 25 26 CHAIRMAN BAKER: If there's nothing 27 else I believe we can move on. 28 29 MS. VOORHEES: The next priority 30 information need: Document the effects of changing 31 river and tributary conditions on salmon spawning in 32 the Noatak and Kobuk River drainages with focus on the potential effects of increased rain on spawning 33 34 viability. 35 36 And we've heard some concerns about 37 I don't know if you'd want to say water levels. 38 something about changing water levels in there as well. 39 40 CHAIRMAN BAKER: I think based on 41 previous conversation it'd be good to add that language 42 in. Any other questions, comments, changes for this 43 salmon spawning. 44 45 MR. CLEVELAND: Hello, this is Vern. 46 CHAIRMAN BAKER: Go ahead, Vern. 47 48 49 MR. CLEVELAND: Yeah, my comment 50

1 earlier but right now with the salmon spawning on the river we got so much erosion going on with our river 2 3 it's making new channels every year and we're losing a 4 lot of ground, some guys are even losing some Native 5 allotments because of erosion. And it's changing quite 6 a bit, the river, the way I went up this fall, the 7 river changes every year, different routes it's because of erosion. You can tell when you're traveling the 8 river that a lot of erosion is happening. 9 10 11 And same thing with the beaver, if the 12 beaver puts a dam and the fish don't come out -- I've 13 been a dam buster since I was a kid for my mom, been 14 busting beaver dams ever since I was a kid to let the 15 fish out from the creek for our lakes. And now it's --16 I think some of them creeks are dammed up, pretty much 17 dammed with the beaver and that's one thing that's 18 causing the fish not to come out, and no air and stuff 19 like that happening statewide, it's not just happening 20 here. But salmon spawning, man, I tell you the erosion 21 that's happening and it's turning the river shallower, seems like, and I haven't gone up river for quite 22 23 awhile it seems like the river's changed above -- above 24 Kobuk it's really changing. I mean that Maniilag once 25 said that the river's going to become straight. Ι 26 believe that, I mean I went up there and gee some of 27 the -- a lot of short cuts being cut through and it's 28 Everything is changing. changing. Global warming. 29 Fish. Caribou. You know it's going to change if this 30 global warming keeps getting warm we're not going to 31 get anything and it's not our fault, we can't stop it, 32 we can't do anything about it. 33 34 But salmon spawning, oh, man, they're 35 going to be lower and lower down this way for salmon spawning because getting pretty -- a lot of dead salmon 36 37 on the sides after spawning. But I tried to get you 38 guys about the whitefish area but I couldn't get out. 39 40 Thank you. 41 42 CHAIRMAN BAKER: Thank you, Vern. So 43 with that I think for this one, if we could update the 44 language to something along the lines of the potential such 45 effects of climate change as increased 46 precipitation, such as erosion, such as temperature 47 change just to be a little more inclusive for the 48 different factors going on. 49 50

0188 1 MS. VOORHEES: Thank you, Mr. Chair. We've noted that. And in keeping with your earlier 2 comments we will also, with all of these, have a clause 3 about consulting local knowledge holders as well. 4 5 6 CHAIRMAN BAKER: Thank you, Hannah. 7 Any other comments or questions for this one. 8 MR. HOWARTH: Mr. Chair, Wilbur. 9 When 10 I went by the Salmon River just maybe three weeks ago 11 and why I said that there is pretty water. I mean 12 there's -- it's beautiful blue and then yellow and then 13 we have the green Kobuk River. People at home, that's 14 Noorvik, you know the salmon goes into the Salmon 15 River. I mean I've seen them by the hundreds and 16 thousands going into the salmon river and I take a lot 17 of pictures. I like to take pictures when I'm out. 18 And they are wondering what, and why is the colors of 19 the Salmon River draining out into the Kobuk, why is it 20 that color? So -- and this is -- this year is the 21 first time I ever seen such pretty water coming out of the Salmon River and so -- and I really don't have an 22 23 answer for them. I would like to see some kind of 24 study being done or somebody give me an answer so I 25 could pass it on. 26 27 Thank you, Mr. Chair. 28 29 MS. VOORHEES: Thank you for those 30 comments, Member Howarth. And I hope that we do get a 31 good proposal for you. I think that the earlier PIN 32 that we discussed about changes in water quality, including those mineral 33 incursions -mineral 34 incursions [sic] hopefully we'll get a project under 35 that PIN. And it's interesting to hear your comments 36 and concerns about salmon in particular related to 37 that. 38 39 Thank you. 40 41 That'll be on the record. 42 43 MR. HOWARTH: Thank you. 44 45 CHAIRMAN BAKER: Thank you for that 46 Hannah and thank you, Wilbur, for your comments. Do we 47 want to add anything else or do we have any more 48 comments for this PIN. 49 50

0189 1 (Teleconference interference 2 participants not muted) 3 4 CHAIRMAN BAKER: If not I believe we 5 can move forward to No. 6. 6 7 MS. VOORHEES: The sixth PIN reads: 8 Changes in species composition, abundance and migration timing especially of Dolly Varden, lake trout and 9 whitefish species in the Northwest Arctic to address 10 11 changing availability of subsistence fishery resources. 12 13 CHAIRMAN BAKER: Any questions or 14 comments from members of the RAC. 15 16 MR. CLEVELAND: Could you please note 17 what page you're at? Thank you. 18 19 CHAIRMAN BAKER: Yes, Vern, we're on 20 Any questions, comments, Page 38 at the bottom. 21 concerns. 22 23 (No comments) 24 25 CHAIRMAN BAKER: I think given the 26 conversations we've had on earlier PINs this one is 27 pretty in-line with a lot of us are hoping to see from these kinds of studies so there doesn't seem like there 28 29 will be any need to change anything besides the TEK 30 inclusion. 31 32 Attamuk. 33 34 SHIEDT: MR. On the trout, as a 35 commercial fisherman, before we used to get trout when 36 we were commercial fishing pretty much late in the 37 season but last two years our trout been coming in 38 early to the Noatak River. And I notice that we get 39 more right at first setting in July, we used to get more in August, but the later part of the year we get a 40 41 lot of trout that come in, that's going back to the 42 normal cycle. But what I'm trying to say a lot of our 43 trout are coming earlier than before for some reason, I 44 don't know why. 45 46 CHAIRMAN BAKER: Thank you, Attamuk. 47 48 MS. HYER: Mr. Chairman. Council 49 members. I have a note and I was going to bring this 50

1 up at the end but since Attamuk was talking about trout on the Noatak, we heard an investigator yesterday and 2 they talked about an abundance estimate also on the 3 Noatak with the trout and so we're seeing changes and 4 then they don't really know the abundance either so I'm 5 wondering if we want to add something about that into 6 7 the PINs also to get a better handle on the abundance 8 of the trout on the Noatak. 9 10 CHAIRMAN BAKER: I think adding that 11 language in would be good for this one. Any other 12 questions, comments. 13 14 MR. HOWARTH: Mr. Chair. The migration 15 timing, like Enoch said, they are coming in early up the Kobuk they usually come in right ahead of the 16 17 salmon and I missed the trout this year because they 18 did come in early. At least they went up the Kobuk 19 River early this year. And usually it's mid-July or 20 almost into August but, yeah, thetiming migration is -there's a lot of changes in all these fish that we are 21 22 missing our timing on gathering. So -- and these 23 studies, thank you all so much for doing this so the 24 people's know -- all the subsistence users at home, 25 it's just hard to get out there to your campsites and 26 try to gather when we don't know what's going on with 27 the fish so thanks. 28 29 Thank you. 30 31 CHAIRMAN BAKER: Thank you for that 32 Wilbur. If there's no objection we can move on to the 33 last PIN in this list. 34 35 MS. VOORHEES: The final PIN reads: 36 identify the spawning areas, critical habitat and range 37 expansion in major rivers tied to subsistence for broad 38 whitefish, least cisco, northern pike, salmon, grayling 39 and Dolly Varden in the Northwest Arctic region. 40 41 UNIDENTIFIED VOICE: Hello. 42 43 CHAIRMAN BAKER: Yes, Vern. 44 45 UNIDENTIFIED VOICE: Hello. 46 47 CHAIRMAN BAKER: Go ahead, Vern 48 Cleveland. 49 50

0191 1 MR. CLEVELAND: It's not me, it's 2 somebody else. 3 4 CHAIRMAN BAKER: Oh. 5 6 REPORTER: It's just another unmuted 7 person on the phone. 8 9 CHAIRMAN BAKER: Yes. Do we want to 10 add lake trout or just trout to this one. 11 12 MR. HOWARTH: Mr. Chair. When you say 13 lake trout, what kind of trout is that besides Dolly 14 Varden because the only lake trout that I know of is 15 coming out of the Baker which is way above Kobuk and this kind of trout is something that people ask what is 16 17 this because, you know, they haven't seen this type of trout and it looks like it's part salmon and part pike. 18 19 It's -- to them it's a scary looking fish. And what we 20 -- what I found out is it came from the lake that never 21 really comes out into the Kobuk unless the water gets 22 high and we had crazy high water in the past couple 23 years during the falltime and it stays high. So 24 there's studies that when you say lake trout, I believe 25 they really are coming out of the lakes now. 26 27 CHAIRMAN BAKER: I believe Brittany has 28 an illustration. 29 30 MR. HOWARTH: Oh, yea. 31 32 CHAIRMAN BAKER: So for those that have 33 a copy of the book, Fish That We Eat, it's on Page 126 34 and we're getting a look at it now. 35 36 MR. HOWARTH: Yeah, I think adding lake 37 trout to this would be good because when I was showing 38 my kids doing sportfishing, trying to fish for salmon I 39 caught a lake trout and it was the first time seeing 40 that type of fish but going home I looked it up and 41 found out that it was a lake trout and it was about 42 almost three feet long but I think it would be good to 43 add it to this PIN. 44 45 Thank you. 46 47 MS. HYER: Mr. Chairman. Council 48 I also want to point out that in this members. 49 particular PIN it says broad whitefish, least cisco and 50

0192 1 in the other PINs we've been working with it's more general, whitefish, so I just wanted to point that out 2 3 to you and make sure that that's the wording the 4 Council wants. 5 6 CHAIRMAN BAKER: So with that do we 7 want to change the language a little bit and keep it more general and just say trout and whitefish. 8 9 10 MR. HOWARTH: Yes, I think that'll be 11 good. Thank you. 12 13 CHAIRMAN BAKER: Yes, Mr. Carter. 14 15 MR. CLEVELAND: Abundance of broad whitefish right now. Some guys are fishing down here, 16 17 I know they spawned already because I had some last 18 night, whitefish -- broad whitefish, it tasted pretty 19 good. But I think they must have spawned early but I'm 20 not sure. But they're putting nets in front of Noorvik 21 here for (In Native) and they're getting abundant (In 22 Native) right now and for the lake trout, up river that 23 comes out, they come pretty huge, the lake trout. Ι 24 don't know what we do about the lake trout but they're 25 pretty huge. 26 27 CHAIRMAN BAKER: Thank you for your 28 comments Vern. Go ahead, Bill. 29 30 MR. CARTER: Yeah, this is Bill Carter 31 So if you change this to trout, most fish again. 32 biologists will not consider Dolly Varden because in 33 the fish science world Dolly Varden are not trout, 34 they're considered Dolly Varden or Arctic Char. So I 35 would urge you to keep them as separate, if you want to 36 include lake trout, to include them specifically and 37 say Dolly Varden rather than trout. And I know the common thing around here is to call Dolly Varden trout 38 39 but fish scientists won't necessarily look at them that 40 way. So that's one thing. 41 42 And then as far as whitefish are 43 concerned, you are missing humpback whitefish which is 44 kind of the largest group. 45 46 And, quickly, to address what Vern just 47 said, broad whitefish do spawn later than all the other 48 whitefish so that's why you're usually catching them 49 under the ice, they're moving up the river much later 50

0193 1 than the humpbacks and the ciscos. 2 3 Thank you. 4 5 CHAIRMAN BAKER: Thank you for that 6 Bill. 7 8 Attamuk. 9 10 MR. SHIEDT: Yeah, you're right. 11 There's a big difference in the lake trout versus Dolly 12 They are different, you could tell easily. Varden. 13 Growing up in Noatak I grew up with a lot of Dolly 14 Varden, a lot of -- to me they're trout. Your 15 language, that's what I'm saying, our trout is trout if you're talking Northwest Alaska. Yet we know there's a 16 17 big difference, they are -- they're scary, when you're 18 not used to seeing them they're completely different. 19 They even taste different than our Dolly Varden. I'd 20 rather have Ms. Dolly than Ms..... 21 22 (Laughter) 23 24 MR. SHIEDT: I mean there's a big difference I've seen them. They're up in Noatak River 25 26 too, the lake trouts. But they do get huge. There's a 27 lot of it in Kougerok (ph). 28 29 MS. HYER: Mr. Chairman. Council 30 members. I appreciate that. Because the first time I 31 came up here and they started talking about trout, and 32 I'm like trout, but we understand what you're saying 33 and -- and we do write this for the scientists because 34 they're the ones that are applying but, yeah, we do 35 understand that when you say, trout, we understand what 36 you mean. And we will adjust the wording to be more 37 general with whitefish. 38 39 MS. HUTCHINSON-SCARBROUGH: Thank you, 40 Mr. Council [sic] and Chair. I was wondering, Attamuk, 41 would you mind providing the Inupiaq names for trout 42 and for lake trout and for Dollies and for whitefish 43 for the record, please. 44 45 Yeah, to us they're all MR. SHIEDT: (In Native), they're trout. And the smaller ones are 46 47 (In Native). That's all I could really say, (In 48 Native) are the small ones, they're in abundance right 49 now but those are char. Lake trout, completely 50

0194 1 different skin, and I'll tell you that right now, they're darker in color. Our trout, the one we call 2 3 trout, the Dollys are more silver. 4 5 MS. HUTCHINSON-SCARBROUGH: Thank you. 6 7 CHAIRMAN BAKER: Any other questions or 8 comments on this one. 9 10 (No comments) 11 12 CHAIRMAN BAKER: So if we could make 13 those language changes I think that will suffice, and I 14 believe we've gone through all seven of our PINs. How 15 would we like to proceed. 16 17 MS. VOORHEES: Mr. Chair and members of 18 the Council. The next step would be to make a motion 19 to approve your priority information needs for the 2024 20 Fisheries Resource Monitoring Program cycle and then 21 this item will be complete. 22 23 CHAIRMAN BAKER: Would we like to 24 approve these as a block or individually. 25 26 MR. SHIEDT: As a block. 27 28 CHAIRMAN BAKER: Is that a motion? 29 30 MR. SHIEDT: Yes, sir. 31 32 MR. HOWARTH: And I'll second that 33 motion. 34 35 CHAIRMAN BAKER: Moved by Attamuk..... 36 37 MR. CLEVELAND: Second. 38 39 CHAIRMAN BAKER: ....seconded by Vern 40 with the delay, is this appropriate for a roll call 41 vote or can we do a majority. 42 43 MS. HUTCHINSON-SCARBROUGH: I believe 44 either is fine, whatever you want, Mr. Chair. Thanks. 45 46 CHAIRMAN BAKER: All right. Well, all 47 those in favor of approving these PINs as a block 48 please say aye. 49 50

0195 1 IN UNISON: Ave. 2 3 CHAIRMAN BAKER: And those opposed same 4 sign. 5 6 (No opposing votes) 7 8 CHAIRMAN BAKER: And with that, we 9 approved, as a block all seven. 10 11 MS. HYER: Mr. Chairman. Council 12 We really appreciate your help on this, thank members. 13 you. 14 15 CHAIRMAN BAKER: Thank you, ladies. At 16 this time..... 17 18 MR. SHIEDT: Are we on the radio? 19 20 CHAIRMAN BAKER: I'm not too sure, are 21 we on the radio today? 22 23 MS. HUTCHINSON-SCARBROUGH: I asked the 24 radio to be but I'm not sure if somebody else 25 could.... 26 27 MR. CLEVELAND: Yeah you are. 28 29 CHAIRMAN BAKER: So right now it is 30 10:22. I'd like to propose we take a 15 minute break 31 and be back in about 15 minutes. Thanks everyone. 32 33 (Off record) 34 35 (On record) 36 37 CHAIRMAN BAKER: So it's now 10:43 and one of the things that we had to push to today from 38 39 yesterday morning was identifying issues for the fiscal year 2022 annual report. We had a brief discussion on 40 it yesterday but we were hoping to get some more 41 42 conversation going over the last day or so. Lisa, 43 would you please take the reins. 44 45 MS. HUTCHINSON-SCARBROUGH: Yes, thank 46 Members of the Council. you, Mr. Chairman. I'm just 47 going to read this again. We mentioned it yesterday 48 but we didn't talk a lot about it so we kind of 49 deferred this towards later in the meeting to give you 50

1 a chance to think about it. 2 3 So what we're asking for you at this 4 point is to -- it's an action item so you guys are 5 going to come up -- need to come up with some ideas if you have some concerns. So ANILCA established the 6 7 annual report as a way to inform the Federal Subsistence Board of regional subsistence uses and 8 9 needs and to provide recommendations for regional fish 10 and wildlife management strategies, policies, 11 standards, guidelines and proposed regulations. So I'd like to emphasize that your annual report ensures that 12 the Board, your Federal Subsistence Board, has the most 13 14 up to date awareness of issues concerns and current 15 events that impact your subsistence way of life. So with this report and recommendations the Board can make 16 17 informed decisions on regulatory and policy actions. 18 19 And just for some guidelines of what to 20 think about, the -- ANILCA established the annual 21 reports as a way to bring the regional subsistence uses and needs to the attention of the directors of the --22 23 of also the four -- Department of Interior agencies and 24 the Department of Agriculture, Forest Service and the 25 capacity of the members of the Federal Subsistence 26 Board, so those guys make up the Federal Subsistence 27 So anyway that's -- your concerns will Board. go to the Federal Subsistence Board and to the head of 28 29 those -- the agencies. 30 31 So some guidelines, you can find them 32 on Page 43 of your meeting book if you want to kind of 33 follow along. 34 35 Is you identify the current and 1. 36 anticipated subsistence uses of fish and wildlife 37 populations. 38 39 2. You can identify current and 40 anticipated subsistence needs. 41 42 3. You can recommend strategies for 43 the management of fish and wildlife populations to 44 accommodate subsistence uses and needs. 45 46 4. And you can make recommendations on 47 policies, standards, guidelines and regulations to 48 implement such a strategy. 49 50

1 I know that's all kind of not very well summarized but I mean it's summarized but anyway it's 2 just -- these are kind of guidelines you can use in 3 4 thinking about issues of concerns that you would like the Federal Subsistence Board to address. And some of 5 them, the Federal Subsistence Board, is able to -- to 6 7 follow action and sometimes they will not be able to but they will still provide you support and some 8 9 mechanisms to -- so like getting other speakers to come 10 to meetings or giving you more information on topics 11 and things like that. 12 13 So what I heard so far in this meeting 14 and these don't necessarily mean that that's what you 15 want to address but these are some things you might 16 want to think about. 17 18 One was just your following up on the 19 special action -- Wildlife Special Action 21-01, Unit 20 23 caribou that we had the closure for two years and it 21 seemed like that you wanted maybe some -- perhaps some 22 more followup on that, or continuing concerns about the 23 caribou declining, which was a huge issue that seemed 24 to be over -- the issue I heard in this meeting, that 25 that's the -- or the herd is the lowest you ever recall 26 in your lives and it's -- and so those are concerns you 27 might want to continue to address to the Board. 28 29 Also I related to that I heard outside hunters flying in to drop off their -- their clients 30 31 and then they're disturbing the migration patterns of 32 caribou that boat traffic -- local boat traffic doesn't 33 seem to disturb the migration of the caribou but having 34 people fly in and drop off and just the airplane 35 disturbance is one thing that I heard you say. 36 37 another Let's see was regional 38 involvement with agencies and working more with the communities and communication in the -- in providing 39 information to the communities directly with -- with 40 what the agencies regulations are and what our rules 41 42 are so people understand more what -- better understand 43 within the community level what the -- what they're 44 being asked to do or not -- what they can or can't do 45 and -- and how they can get more involved in this 46 process and how do we go about doing that so we can get 47 into the communities better. 48 49 I also heard about the hunter reporting 50

0198 1 on caribou harvest, the local subsistence hunts are not -- currently there's not a lot of reporting of how many 2 caribou are harvested and so it's hard for the wildlife 3 4 biologists to manage and -- or even know how many --5 what's going on with the herd if we don't know how many 6 are harvested. 7 8 And then climate change on subsistence 9 is an issue that was also of major concern. Just 10 climate change, water levels. 11 12 And then we did talk about beaver. 13 Beaver was one of your -- your questions from before 14 that the Board -- the Board reported on and gave you 15 some recommendations. I don't know if you want to continue to show that as another concern or not. 16 17 18 Anyway those were the main things I 19 wrote down but it's just to kind of give you some 20 thinking points and see if you want to establish any of 21 those and -- Attamuk, did you have a question? 22 23 MR. SHIEDT: I have a -- yeah, you 24 commented about the harvest report. I think what you 25 need to do is talk to Maniilaq and the village IRAs 26 because when they get fuel through Maniilag for 27 harvesting they're required to report what they get and 28 who they give to. I think that's where you need to 29 reach out, I think you'd be better off reaching to 30 them, how much caribou or other resources they get. 31 32 MR. HOWARTH: Mr. Chair. Yeah, Enoch, 33 he was just telling me about this hunter report and 34 stuff and I really don't want to say but I do get 35 elders gas so to me I always think I'm not an elder yet 36 but I'll be 65 in a few more months and we look at the 37 reports and stuff. This fall was such a late caribou 38 harvest and going up all the way to above Onion 39 Portage, which is right below Ambler area and maybe the Noorvik community probably harvest about 30-something 40 41 caribou because there was about six, seven boats from 42 Noorvik up there and the gas is 9-dollars-something in 43 Noorvik so it was hard for many of the hunters to go up 44 and I would say in the 30s is what's been harvested on 45 caribou this fall. 46 47 Thank you. 48 49 CHAIRMAN BAKER: Thank you for that 50

0199 1 Wilbur. 2 3 (Teleconference interference 4 participants not muted) 5 6 CHAIRMAN BAKER: So I think going with 7 -- if you could all please mute your phones, there's 8 somebody shuffling some papers around. 9 10 For in the report, going with the 11 language of following up locally, if different agencies 12 could reach out to Maniilaq, to the IRAs in each village and just see what communication gaps are and 13 14 what can be bridged because that's something that was 15 brought up at our last meeting in February of we need to hear from Maniilag and we need to hear from these 16 17 agencies because there are reporting measures in place. 18 away to remind all those involved that So if there's 19 there are local entities working towards trying to get 20 these numbers recorded that would probably be the 21 biggest thing for this report. 22 23 MR. SHIEDT: Attamuk here again. For 24 your information, Susan Georgette and I did a lot of 25 caribou surveys for years and we established numbers 26 and our local biologists, when caribou start going 27 down, at the meeting he put himself on the line and 28 say, when you do the survey, Attamuk, I will say that's 29 how much -- if they're going to take a reduction, he 30 told us that through the surveys that's how much 31 caribou should be taken for the villages and it was 32 about 14 per family for a year take and he said that's 33 the number they could have used. And what I'm trying 34 to say is this, if you guys want another survey, you 35 got money, give me some money I'll do the surveys in 36 the village because I'll pay the villages -- what I do 37 is I pay the villages to answer the questionnaires I 38 got, how many they get and I pay per house but make it 39 interesting I let it -- I get a drawing for gas to help them on the side, that way they have interest in the 40 41 surveys. So you guys really want the survey call me. 42 43 (Teleconference interference 44 participants not muted) 45 46 CHAIRMAN BAKER: Anything else to add 47 for this caribou issue for the annual report. 48 49 (No comments) 50

0200 1 CHAIRMAN BAKER: Vern or Mike, you have 2 anything you'd like to add. 3 4 MR. KRAMER: This is Mike, no, nothing. 5 6 CHAIRMAN BAKER: Thank you, Mike. 7 Vern, do you have anything. 8 9 MR. CLEVELAND: Not at the moment, Mr. 10 Chair, thank you. 11 12 CHAIRMAN BAKER: Thank you, Vern. So 13 with that I think if we can review the language after 14 the meeting and touch up the official thing via email 15 this, for sure, will be in the annual report. Do we have any other issues that we talked about. I know 16 17 some of the big things we talked about is effects of 18 climate change, trying to get more studies done so we 19 can figure out why certain things are happening, 20 mineral deposits and such. Is there anything 21 specifically we'd like to add in for the report? 22 23 MR. HOWARTH: Mr. Chair, Wilbur. This 24 climate change in the past maybe five, six years and 25 knowing the caribou and stuff, after it snows in 26 November we usually get rain and when it snows, that 27 rain it'll freeze on top of the tundra and the caribou are having hard time feeding so -- and we lose a lot of 28 29 caribou due to starvation due to this climate change, 30 so people out there need to be aware of that because a 31 lot of people will wonder why are we losing so much 32 caribou. So this climate change did lots of damage on 33 our subsistence take on caribou. The moose are --34 they're big powerful and they're -- they are eventually 35 -- me, being out there and stuff, they're population is, I think is increasing I would say. I haven't seen 36 37 so much in one little pile during the fall and that's 38 before rutting so I think the moose is good but the 39 caribou is -- we need a lot of studies but I know the 40 climate change is the big thing on the caribou. And 41 the people should know that it affects the herd. And 42 when I walk during berrypicking and that's late July, I 43 could see the lichen that the caribou feed on and they 44 are coming back and in those areas where the caribou migrates, they'll go through there and they'll just eat 45 46 all that lichen and then it takes about eight years for 47 lichen to regrow, or they grow again. They're slow 48 growing food for the caribou. But when you walk and 49 see this, I always think, oh, boy, the caribou are 50

0201 1 going to come through here this time, you know, instead of another migration route so they have to move and 2 migrate not only in one area every year, they have to 3 4 move and keep moving so sometimes they get farther, farther away. So this younger generation needs to be 5 6 educated on something like this. 7 8 And I am glad to see all of you here with the information, your guys' reports and stuff, 9 10 thank you. 11 12 Thank you, Mr. Chair. 13 14 CHAIRMAN BAKER: Thank you, Wilbur. Ι 15 think with that that's a good seqway into there's multiple issues going on with the caribou and as was 16 17 stated yesterday we have some pretty rough metrics for what's actually happening with the herd. So I think if 18 19 we could keep the first issue, which focuses more 20 towards harvest and human interaction with the animals, 21 and make a separate issue specifically about the 22 effects of climate change and natural causes on the 23 herd, so that we can kind of differentiate what's going 24 on with some of the numbers that get passed around if 25 one community gets only about 30 animals each fall and 26 there's 10 communities, 11 communities in this region 27 how are we taking 14,000 animals a year. So it's things along those lines of creating a separate issue 28 29 for the report focusing on the natural causes such as 30 those related to climate change on what the herd is 31 doing. 32 33 Anything else to add to that, or any 34 separate issues that we'd like to bring up in the 35 report. 36 37 Yes, Brittany. 38 39 MS. SWEENY: Thank you, Mr. Chair. This is Brittany Sweeny. Just looking back at my notes 40 from yesterday we did have some good discussion about 41 42 getting full Council membership, the application 43 process and the geographic distribution. So just 44 something from my notes, I didn't know if the Council 45 may wish to comment to the Board on that, or even the 46 inclusion of alternates perhaps. 47 48 CHAIRMAN BAKER: Thank you, Brittany. 49 I think that would be a good thing to add in for the 50

1 report just so that we can once, again, have a full Council and be represented from across the entire 2 region. There's been times where people say we need 3 4 someone from Noatak, we need someone from the upper Kobuk, just so we get a better understanding at each 5 meeting what's going on around the region. So if we 6 7 could add in an issue regarding that membership, and if there is a way for OSM or whichever other entities 8 involved may be able to do outreach specifically to 9 10 those communities that are under-represented. 11 12 MR. ARMSTRONG: So I just wanted to say 13 that are we reaching out enough to the tribes to get 14 the applicants because I know when the issue does come 15 up to the tribe they ask a tribal council member that is on the Council to see if they want to become a 16 17 Council member on the Federal Subsistence, are we 18 I know it comes up, when I go to the reaching out? 19 meetings to Noorvik, the tribe is aware. 20 Thank you. 21 22 23 MS. HUTCHINSON-SCARBROUGH: Yes, thank 24 Through the Chair. I'm a new Coordinator and you. 25 that's my plan to try to -- I just started a few -- a 26 couple months -- a few months ago, but that's my plan 27 is to reach out more to individual tribes and 28 Brittany's been really good about getting me all the 29 names and contacts and I have been emailing them but, 30 you know, it's not -- that's not an ideal way of 31 communicating, I understand. So as I'm getting more 32 familiar with this area I definitely will be reaching 33 out and I'll probably be also talking to you as well as 34 Council members to provide names of people who might be 35 -- you know that I can reach out to as well. So does 36 that answer your question? 37 38 MR. ARMSTRONG: Yeah, thank you. 39 40 MS. HUTCHINSON-SCARBROUGH: Thank you, 41 Mr. Chair. 42 43 MR. ARMSTRONG: I know we always reach 44 out too because one of the Councilmen -- Council members reaches out through FaceBook trying to invite 45 the public to at least apply because it's so vital to 46 47 have a full Council to where the agencies can get 48 reports, that way we could make better decisions on --49 better decisions on the people we represent, even 50

0203 1 making suggestions for changes in regulations. 2 3 Thank you. 4 5 MR. KRAMER: Mr. Chairman, this is 6 Mike. 7 8 CHAIRMAN BAKER: Yes, go ahead, Mike. 9 10 MR. KRAMER: Yeah, over the years that 11 I've served I've always wondered how many seats are we 12 allowed, you know, for our RAC Council? I've tried and 13 I've gotten a hold of so many people to try and get 14 them to come in. There's some people that think it's a 15 joke and I'm like, no, man, this is a serious matter. This Council means a lot to our subsistence resources 16 17 and our lives and they're kind of -- they kind of think 18 it's a joke but, you know, I try to pass it out there a 19 lot. Any time I go anywhere, travel, whatever, you 20 know, and I see local people I try to pass it on to 21 them that they should at least try to see if they can 22 get on. And, you know, I give them Lisa's information 23 so they could get applications. You know it's kind of 24 a long process so I mean like right now if any of your 25 guys seats are coming up, you should be filling out an 26 incumbent application right now. I'd rather get mine 27 nine months early than nine months too late and I am 28 not on the RAC at the next meeting. So, you know, 29 there's always that overlap so, you know, it's to 30 prevent any gaps in having a Council quorum, you know, 31 just try to make sure we're way ahead of schedule, 32 those incumbent ones -- the incumbent apply, 33 application makes it easier on us that are already 34 there. The regular application is kind of a long 35 process also but, you know, once you get your foot in the door, man, you're serving your community, you're 36 37 serving the region, you're serving the people, you 38 know, you're serving the subsistence users in a big 39 manner. And one of the biggest things that I've seen 40 in the last however many how years I've been with them, 41 you know, I'm one of the ones that said we need to have 42 it on the KOTZ radio because we need to have these 43 people out there informed of the regulations because if 44 they go out and harvest caribou and they get arrested or a lot of their things taken away for just trying to 45 46 do a simple thing and that's putting food on the table 47 when the grocery stores are very minimal, you know, they have to buy gas, they have to buy shells, you 48 49 know, and they have to spend time out there in the 50

1 country in order to fill their freezers but if we get them busted because we're not informing them of the new 2 3 regulations, you know, there's got to be a constant 4 communications throughout all the villages here in Northwest Alaska, about the regulations, there needs to 5 be people present to be able to tag wolves, wolverines, 6 7 you know, not these little temporary tags but when they go to get them sealed there needs to be someone in the 8 9 villages, you know, on a regular basis flying out to the villages constantly, coming back and, you know, 10 11 going up there to seal animals, you know, such as bears, wolverines, wolves, beavers, you know. 12 13 14 But when you're on the RAC you're 15 serving a very, very, very important seat within the You know we're making decisions that impact 16 region. 17 the rest of our future and we're still fighting. We're 18 fighting hard for our people. Some people think we 19 don't, I'm like, uh, you should come to a Council 20 meeting then and they're kind of like, yeah, yeah, 21 yeah, well, they don't realize how hard we fight just 22 to keep our subsistence rights and to make sure that, 23 you know, regulations are upheld and if there's any 24 other new regulations we put forth that, you know, the 25 Board of -- Subsistence Board of Directors get things 26 passed, we're looking out for everybody's future, you 27 know, especially for the subsistence, our children and 28 grandchildren. Yeah, it's very important. 29 30 So if any of you guys there that are at 31 the meeting, I'm sorry I couldn't be there both me and 32 my son are not feeling good still but, yeah, get your incumbent applications done even if it's a year in 33 34 advance, get your incumbent applications -- you got all 35 the people there to sign your -- you know, to sign your 36 -- I can't think of it right off the top of my head, 37 but your witnesses or whatever they're called -- but, 38 you know, my main concern is I know we're having a hard 39 time filling seats but we need to have more applicants 40 and using these incumbent applications makes it much 41 more simpler to be on the RAC and stay on the RAC. 42 43 But I was just curious as to how many 44 seats are we -- available to have, you know, is it 15, 45 is it 9, or -- Lisa, if you have any answers to that. 46 47 Thank you. 48 49 MS. HUTCHINSON-SCARBROUGH: Yes, Mr. 50

1 Chair. Mr. Kramer. Thank you for saying that, I really appreciate it. It's important to be reaching 2 3 out to anybody that's interested and we particularly 4 need members from the upper Kobuk areas -- communities, 5 if possible. Your answer to your question, is 10 6 members is the number of Council members that you can 7 have. It is supposed to be composed of representative 8 members as follows: 9 10 this is under And it's -the 11 Subsistence Regional Advisory Council charter for this 12 So 10 members who are knowledgeable and region. experienced in matters relating to subsistence uses of 13 14 fish and wildlife and who are residents of the region 15 represented by the Council. 16 17 So they -- to -- and also the Secretary 18 of Interior is who appoints the members. But you can 19 also provide an alternative -- alternate members may be 20 appointed to the Council to fill vacancies if they 21 occur out of cycle. 22 23 So right now we currently have an 24 opening for membership application. It opened in 25 September and it closes February 21st and you can find 26 the application, for those of you online, on our 27 Just, again, Google -- sorry, I'm not website. 28 promoting Google but anyway, Google the Federal -- the 29 Office of Subsistence Management and you will find it 30 in there but also it's -- we have brochures here for 31 everybody and you can -- that you can -- there's 32 applications and there's a couple of the Council members from the Kodiak/Aleutian region on the cover 33 34 but we just encourage you to do it. And we can -- I 35 can help you. Just -- you can contact me or somebody at OSM if I'm not available to help you fill out the 36 37 form if you're interested. But just because you -- you 38 know, just put it in and right now we had seven for 39 this last cycle -- this Council had apparently seven --40 seven applicants -- new applicants that are now being considered to be on the Council. So the Secretary of 41 42 Interior should be getting back with us pretty soon on 43 that but right now there's eight sitting members and 44 there's two vacancies, and then three of you need to reapply so -- and so I need to be getting some 45 46 reapplications for you too. 47 48 But I hope that answered your question, 49 thanks. Back to you, Mr. Chair. 50

0206 1 MR. KRAMER: Mr. Chairman, this is 2 Mike. 3 CHAIRMAN BAKER: 4 Did you say something 5 Mike. 6 7 MR. KRAMER: Mr. Chairman, this is 8 Michael. 9 10 CHAIRMAN BAKER: Yes, go ahead, Mike. 11 12 MR. KRAMER: Yeah, like for our -- the people who will be covering for us, like if I'm out 13 14 sick and I'm unable to attend the meeting, does this 15 person have to be from the same community or can I, you know, have someone to take over -- or cover for me from 16 17 a different village? You know that would be one good 18 way, too, is , you know, I could have someone from 19 Noatak, like if I can't make it to a meeting, he comes 20 in and he could take my seat for, you know, that 21 meeting, that would be another good thing too, is if we 22 could get alternates from different villages. You know 23 like Kiana would have -- Ambler, Shungnak, whatever. 24 But I know I've asked a person from Ambler, from Noatak 25 and, you know, they just wanted to come in or listen in 26 and see what kind of a meeting it is that we have. And 27 I hope they applied and I sure would like to see a lot 28 more come in and apply. The more the merrier. You 29 know the best thing to do is fill out that application, 30 don't sign it, make yourself another copy, if it has 31 any changes leave some room to make any changes but 32 don't sign it so what you do is you sign one and you 33 send it to them. Let's just say all the seats are 34 filled and you get your letter that says, sorry the 35 seats are filled, then the next time you hear that 36 there's going to be some more seats you just sign and 37 date that one after you make another copy and just keep 38 submitting it. I kind of wish that the timeframe for 39 these applications to get approved would be a lot quicker, you know, because I'm sure these people from 40 41 Noatak, Kiana, Ambler, Shungnak, Buckland, Kobuk, 42 Kivalina -- you know, Noatak is a high conflict area, that's the Noatak River, you know, is a pretty high 43 conflict area all because of the air traffic going up 44 that way and up there in the Kivalina, Wulik area, you 45 46 know, that's State lands. We sure need, you know, a lot 47 of good members from different places. You know 48 there's 11 villages I don't understand why we don't 49 have, you know, at least 12 or 15 seats available. 50

0207 1 But that's all I have for right now, 2 thank you. 3 4 CHAIRMAN BAKER: Thank you, Mike. 5 Anybody else have any questions or comments regarding 6 RAC membership for the annual report. 7 8 MR. SHIEDT: Yeah, for years we've been 9 requesting..... 10 11 (Teleconference interference 12 participants not muted - echo) 13 14 MR. SHIEDT: Thank you. That we change 15 the term from three years to five years because the cycle takes forever. So we need to increase -- it's 16 17 three years, every three years, we need to do it, the 18 Federal is so slow approving..... 19 20 CHAIRMAN BAKER: Can you hold on one 21 second, Attamuk, he's going to try to fix it. 22 23 So if everyone listening in on the 24 phone could please mute your phones we're getting a lot 25 of feedback in the room. 26 27 MR. SHIEDT: It's somebody on the line. 28 29 CHAIRMAN BAKER: Attamuk. 30 31 MR. SHIEDT: Yeah, all I'm saying is 32 let us increase it to five years instead of three years because it takes forever just to get it approved 33 34 through Congress, and we've been doing it for years and 35 year, we're trying to change it, but the Federal, you 36 guys are so slow approving and taking forever. I think 37 the time is changed where we need to change it. 38 39 CHAIRMAN BAKER: So maybe under the issue of membership we could put in considerations for 40 41 changing the length of terms and looking into the 42 possibility of alternate Council members. 43 44 MR. KRAMER: Yeah, I think that alternates would be a good thing. It would help a lot, 45 46 you know, and at our meetings it would be also awesome 47 to have our alternates there at times, the ones who 48 could make it in or make it to wherever we plan on 49 having meetings. 50

0208 1 CHAIRMAN BAKER: Anything else for RAC 2 membership for the report. 3 4 (No comments) 5 6 (Teleconference interference 7 participants not muted - echo) 8 9 CHAIRMAN BAKER: Let's please remember 10 to mute our phones if we're listening in. 11 Mike, you bring up a -- in the first 12 13 half of what you said you brought up something from 14 yesterday that we talked about, that I think is a great 15 idea that you've had and have been a big advocate for 16 and I think needs to be a separate issue in the report 17 is predator surveys. Studies, wherever they may apply, 18 towards bears, wolves and predation on caribou and 19 moose. It's something that comes up every year and has 20 been increasingly parts of our discussion of what's 21 happening with the caribou and moose populations insofar as predation from wolves and bears. 22 23 24 (Teleconference interference 25 participants not muted) 26 27 CHAIRMAN BAKER: So if we could mute 28 our phones that would be cool. 29 30 And having that stated as one of our 31 issues that we'd really like to push for more in the 32 coming year, coming out of the agencies and seeing 33 what's available so that we can work with the different agencies to see what's happening, where the people 34 35 aren't, and it's a wildlife issue. 36 37 MR. KRAMER: Yeah, it'd be great to put 38 that in there. You know there's got to be something 39 they can do. I mean we're not trying to be mean to the animals, there's got to be a way to be able to 40 41 sterilize an animal, a bear or a wolf, so they can't 42 have pups or they can't have pups. I figure if you get 43 40 a day, 20 a day, go out there with a helicopter, fly 44 up by them, pop them with a dart, you know, within two 45 months they're sterile, you know, they can't make 46 babies. You know if they get 20 a year, next year it'd 47 be 40, the year after that it'd be 60 and then try that 48 with bears to see and, you know, in different areas not 49 just one target area. You know get some out of 50

1 Selawik, get some out of Noorvik, get some out of Kiana, Buckland, Ambler, Shungnak, Kobuk, you know, 2 3 Noatak, Kivalina, try to get some in different areas I 4 mean you never know in three years you'll have 60 animals that are sterilized and can't have cubs or 5 pups. And it's not -- I mean it's just a way of being 6 7 able to control predators, you know, in kind of a light I mean I don't think it's cruel, I think it 8 manner. 9 would be great. At least we're not out there aerial 10 hunting them and, you know, putting bounties on their 11 heads but this would be a pretty interesting way to be 12 able to take care of, you know, a predator problem. 13 14 But that's my thought on that one. 15 16 Thank you. 17 18 CHAIRMAN BAKER: Thank you, Mike. Т 19 think that's a good one to add in, is not only predator 20 studies but looking into predator management procedures 21 and what can be done by the different agencies involved 22 as well as what local folks can do to help with the 23 predator situation. 24 25 Any other questions or comments on this 26 one. 27 28 (No comments) 29 30 CHAIRMAN BAKER: Any other issues to 31 bring up. 32 33 MR. ARMSTRONG: I think we just need to 34 find out the mortality of the caribou. That way we can 35 give suggestions on other issues that affect the caribou too. And I think it'll be best for making good 36 37 decisions on regulations or that way it will help 38 improve the subsistence user, if we find out what's --39 why there was such a big number decline in caribou. I 40 know we've been talking about this for how meetings 41 already, ever since the first numbers were given out. 42 We've been giving a lot of suggestions, which is good, 43 but I think we need to make it more broad to where it's 44 just not one area. I know predators, we've been talking about predators. We've been talking about the 45 calving grounds. The climate. So I think if we really 46 47 find out the decline in numbers, our suggestions would 48 be more broad across the board. 49 50

0210 1 Thank you. 2 3 CHAIRMAN BAKER: Thank you, Elmer. If 4 we could add that to, I don't remember if it was the 5 first or the second specific issue that we talked about regarding studies on the caribou, 6 and try to keep that 7 separate from the predator issue. 8 9 Any other issues that we'd like to 10 bring up for the annual report. 11 12 MR. HOWARTH: Mr. Chair. I tried to 13 get ahold of this -- one of our members from Noorvik 14 that were up above Onion Portage hunting caribou and 15 there was a few, maybe four or five of those hunters up 16 there asking me what's wrong with this caribou. Why is there puss coming out the back of the tongue. 17 Why is 18 the caribou all green between the flesh and the skin 19 with little pusses, and they're sick. I just said 20 that's a sick caribou. I wouldn't want to take it home. 21 So what they do and learning from my dad is we drag 22 them up into the willows, away from the river. So --23 and out of Noorvik, speaking to hunters that came in 24 this past couple weeks ago, before freeze-up, it was 25 just two days maybe before the ice or the river started 26 freezing up and maybe three of the hunters had that 27 type of caribou that was sick. So -- and they don't 28 know what it is, I mean what kind, what is making them 29 And I should have took the pictures that they sick. 30 showed me on their phone here so I could show it to our 31 biologists or somebody who can explain what kind of 32 sickness the caribou had. So that's been sitting in my 33 head and everything for the past few days. And I 34 should have took those pictures from them. 35 36 So thank you, Mr. Chair. 37 38 CHAIRMAN BAKER: Thank you, Wilbur. 39 I'm not sure if it's a separate issue for the report 40 but is there a way that working with Fish and Game, 41 Fish and Wildlife, the different agencies as far as 42 community and hunter outreach, just letting them know 43 say if you do find another caribou that's clearly to sick and not in a normal way, this is who you could 44 45 email, this is who you could call, whether it's just 46 reaching out to the IRAs and giving them that information and say you can contact Alex Hanson in 47 48 Kotzebue with Fish and Game, or Kyle Joly, whoever it 49 might be. But just identifying those different people 50

1 to let people out in the villages in know this is where you can send this information. Even if an answer isn't 2 3 readily available, that way it kind of gets the ball 4 rolling and there's a track of these things that may 5 get lost in the cracks if somebody loses the pictures 6 on their phone or whatever. 7 8 MR. SHIEDT: I think what need to be 9 done here since Wilbur brought it up, the Park Service 10 should work with the village IRAs to say if they see 11 any kind of caribou, put a little pamphlet out, what 12 kind of samples should be taken that way if they have 13 to freeze it right away or try not to put it in a 14 plastic bag or somehow preserve it until they get to 15 the village to have it -- to send out to have it sampled, what's wrong with the animals. I think that's 16 17 what need to be done. 18 19 I hear about this, too, because my boy 20 was there when they saw it and he told me about it and 21 he said, dad, it was sick, the animal so every caribou 22 he get we ask the people to check on them. Like I told you what he give away here. And I think what the Park

22 The get we ask the people to check on them. Like I told 23 you what he give away here. And I think what the Park 24 Service to work with the villages, something like this, 25 we need to take samples and you guys need to tell them 26 where to send it, Fairbanks or Anchorage. 27

CHAIRMAN BAKER: Adding on to this, not to put Mr. Hanson on the spot, but are there any kind of sample kits that if Fish and Game doesn't have that you could put a paper together to send to the IRA and say this is the best way to preserve something to get it to a biologist.

35 MR. HANSON: Thank you. Through the 36 Chair, this is Alex Hanson, Alaska Department of Fish 37 and Game. So we're interested in all of these reports different ways 38 and there's to deal with them. 39 Generally speaking, anything that's going to Fairbanks or another lab could come through Kotzebue. 40 So just 41 contact us directly and you can send that through, you 42 know, we'll pay the fare on that, happy to cover the 43 cost of the shipping and then we can deal with it. 44 contact us prior just to make sure it's However, something we're interested in and somebody's available 45 46 to take care of the sample. I will say that we do have 47 a pocket guide of health information. A lot of that 48 stuff, common diseases and stuff are in that. I can 49 get those out to the communities. We have -- I was 50

1 around several communities this summer and saw IRAs had them out so they've been distributed pretty widely and 2 if you need those let us know. It's also available 3 4 online, you can pull up the PDF real quick through our website. But it covers a lot of that, you know, normal 5 stuff that we see in the field. So if there's 6 7 something abnormal we're very interested in that as well. But just contact us. 8 9 10 And be aware that -- I mean make sure 11 that you cover your bases, if you're leaving something in the field make sure that you contact us and let us 12 13 know so it doesn't look like a waste or a poaching 14 incident or something like that. We don't expect you 15 to take home and consume bad meat but we want to make 16 sure we understand what happened there. 17 18 CHAIRMAN BAKER: Great, thank you, 19 Alex. 20 21 Brittany. 22 23 MS. SWEENY: Hello, Mr. Chair, this is Brittany Sweeny. Another mechanism that's available to 24 25 the public and to members of the Council, for those who 26 are on FaceBook. I know a lot of photos and 27 information are shared through FaceBook and we often hear of them in meetings but if we're not FaceBook 28 29 friends with the person we may not be aware of it, 30 right, so the Selawik National Wildlife Refuge has a 31 FaceBook page and people can message us through there. 32 It's one way to get the information where we can see 33 it. And then, you know, I can send it on to Alex or 34 others who are knowledgeable, so I'm willing to be that 35 intermediary from the social media world to putting 36 them in touch with the experts. 37 38 I want to thank the members who have 39 sent, like unusual bird sightings, they've tagged us. We really appreciate receiving that information. 40 So, again, it's on FaceBook, Selawik National Wildlife 41 42 Refuge, you can -- it's open to post on our wall or to 43 message us. 44 45 Thank you. 46 47 CHAIRMAN BAKER: Great, thank you, Brittany. Any other issues that we would like to put 48 49 into the annual report. 50

0213 1 MR. ARMSTRONG: I would just like to --I think it was the Fish and Game that go to the 2 3 villages each year during the early spring and they hold meetings at the school where community members can 4 attend and ask questions on how caribou can get sick or 5 the signs of sickness, that way the member -- community 6 7 members know what to expect when they get caribou and I think they need to keep that up, going to the villages. 8 9 I think they used to come in early part of the year and 10 hold meetings. That way we could ask questions about 11 sick caribou, the signs and I think we need to keep 12 that going. 13 14 Thank you. 15 16 CHAIRMAN BAKER: Thank you, Elmer. Any 17 other issues that we'd like to bring up or would we 18 like to finish the discussion on the annual report 19 issues. 20 21 (No comments) 22 23 CHAIRMAN BAKER: And remind me, Lisa, 24 is this an action item..... 25 26 27 (Teleconference interference 28 participants not muted) 29 30 CHAIRMAN BAKER: If we could please 31 mute our phones. 32 33 MS. HUTCHINSON-SCARBROUGH: You could 34 hear yourself repeating yourself. 35 36 CHAIRMAN BAKER: So is this an action 37 item that we need to vote on to approve the list for 38 the annual report. 39 40 MS. HUTCHINSON-SCARBROUGH: Yes. Yes, 41 Mr. Chair. Members of the Council. Yes, this is an 42 action item. We need to come up with a list and so 43 what I'm suggesting is that I have been taking some 44 notes that I might want to kind of reorganize during our lunch break and I could come back with you right 45 46 after and we could just vote on -- and see if that's --47 if you concur with what I said and then we can vote on 48 it, would that be acceptable. 49 50

0214 1 CHAIRMAN BAKER: It looks like that would be acceptable. So with that, we do have one 2 3 request to address the Council from Mr. Willy 4 (Indiscernible) regarding fishing trawlers. So right now we're wrapping up identifying issues for the annual 5 6 report and next on the agenda would be agency reports. 7 Given that we have a little time before lunch, Mr. 8 (Indiscernible) would you like to address the Council. 9 10 WILLY: Good morning. 11 12 CHAIRMAN BAKER: Good morning. 13 14 WILLY: Or Good afternoon. 15 16 CHAIRMAN BAKER: Good afternoon. 17 18 WILLY: My name is Willy 19 (Indiscernible), I was born here in town in 1948 and 20 I've seen a lot of fishing and hunting. And I used to 21 go hunt caribou, too. But now days it's hard for me to I ran a lot of dogs. I never had no dog 22 get around. 23 teams no more because it's hard to feed my dogs. I 24 used to go hunt caribou, go feed my dogs too with bones 25 and they sure like it. 26 27 But to come to fact is my name is Willy 28 (Indiscernible) and I was born in Kotzebue and we used 29 to have lots of fishing nets in the front beach. From 30 airport to down there. People used to come down from 31 Kivalina, Noatak, Selawik and come down and go fish but 32 now days they don't because they put cement on the 33 beach now. They used to come down and go fish, now 34 they don't. But the thing is this, I've been listening 35 to radio and I've been to school and what caught me in 36 my mind is I went to school in sixth grade and there's 37 a blue book, that whole blue book was fishing trawler 38 book. I read about that trawler, it say it could catch 39 fish and box it and ship it out. I read that book and it got on my mind yesterday when you fellows talk about 40 41 hunting and fishing. The problem I need to know is how 42 far is the salmon go from Alaska down to -- down, down 43 to the state side, how far does the fish go and when it 44 comes back, it comes back to the same river. But what really bothers me at all is when I watch TV, just about 45 46 a week ago, the fishing trawlers, they got big nets, 47 they catch lots of fish. I don't know what kind but 48 maybe they get a lot of fish and drag the net, on the 49 bottom, I read it, no more -- no more fishing Japanese 50

1 and no more fishing America because of those fishing trawlers. Those Japanese are coming up this way to go 2 get some salmon. Is it true? Yeah. We see them on 3 TV. 4 I don't know what my situation is that how far does the salmon goes when it spawns. How far out of 5 6 Alaska does the salmon go then come back and come back 7 to the rivers. But I need to know to correct my mind, is does the fishing trawlers in the other countries 8 9 have their -- are they allowed to come up here and 10 fish. Are they stopping them from coming up here 11 because pretty soon there'll be no more fish up here. 12 Are they allowed that they are going to come up here and do whatever they want with all kinds of fish, 13 14 pretty soon we will run out of salmon because that's 15 where all the salmon goes, down there, to get fish, fill their bodies with fish but I don't know. 16 17 18 My complication is do those fish 19 trawlers, are the -- are the problems of fishing around 20 Alaska because they drain a lot of fish from down 21 there. Try and tell me something true, how far can 22 those fish trawlers go? 23 24 Okay. 25 26 (Pause) 27 28 WILLY: I can't hear too good but if you 29 good me a good voice and talk about it I'll be happy. 30 31 CHAIRMAN BAKER: Do we have any fish 32 biologists that might be able to speak to this? 33 34 MR. CARTER: So this is Bill Carter, 35 the Fish Biologist at Selawik National Wildlife Refuge. 36 37 So as far as factory trawlers are 38 concerned, foreign trawlers aren't allowed within 39 what's called the EEZ, the Exclusive Economic Zone, which goes 200 miles off our shore. Here in Kotzebue, 40 41 because Russia is not 200 miles from us in certain 42 places, it's equal distance between the two so it's an 43 equal distance between Russia and the U.S. The 44 majority of what they're talking about on the news it actually American factory trawlers that are fishing for 45 46 pollock. And the State and the Federal agencies are in 47 the process of looking at bycatch and how that is 48 affecting the salmon. Salmon from this area don't 49 leave the Bering Sea for the most part so -- but salmon 50

0216 1 from the Yukon and the Kuskokwim and Bristol Bay do travel into the North Pacific. 2 3 4 WILLY: You told me they got no fish 5 down there. 6 7 MR. CARTER: Right. 8 9 WILLY: Right there when they have AFN 10 they say they got no fish down there, that's where all 11 the problems with big boats happen. 12 13 MR. CARTER: Yeah. 14 15 WILLY: Yeah, I sure am happy now. 16 17 MR. CARTER: Okay. 18 19 WILLY: I wish everybody know what's 20 going on. 21 22 MR. CARTER: We had record catch here 23 this year so, yeah, the chum salmon from here don't 24 leave the Bering Sea for the most part. 25 26 WILLY: Uh-huh. 27 28 MR. CARTER: So it's hard to track them 29 once they get to the sea because they go out as very 30 young and very small fish. So, okay, any other 31 question. 32 33 WILLY: Do they have those fishing have 34 a law to tell them to stay away from Alaska or what? 35 36 MR. CARTER: There is -- there is a 37 rule that says that foreign trawlers can't come into 38 the U.S. Zone but there are a lot of trawlers that are 39 American flagged ships. 40 41 WILLY: Yeah, okay. That ease my mind. 42 43 MR. CARTER: Okay. 44 45 WILLY: Very happy, thank you. 46 47 MR. ARMSTRONG: While we have you on 48 the mic, talk about the moratorium line between Wales and Little Diaomede area, do you know about that one? 49 50

0217 1 MR. CARTER: So that's part of what I would expect would be part of the EEZ, the Exclusive 2 Economic Zone and that divides Russia from the U.S. as 3 4 far as the territorial waters and where they're allowed to fish depending on what -- where they're -- how their 5 vessel is flagged. So if it's a Russian flagged ship 6 7 they shouldn't be crossing that line and if it's an American flagged ship they shouldn't be going the other 8 direction. For the most part, as far as fishing's 9 10 concerned, in the Straits there, the Bering Straits, 11 there's probably not a whole lot of fishing actually 12 going on because of the currents in there and stuff, 13 it's more of a transit zone. 14 15 Did that answer your question? 16 17 MR. ARMSTRONG: That's good enough, 18 thank you. 19 20 CHAIRMAN BAKER: Thank you, Willy and 21 thank you, Bill. So at this time it's just about 22 11:45, I'd like to propose that we break for lunch 23 until 1:00 p.m., unless we have anything else we'd like 24 to discuss before we get into agency reports this 25 afternoon. 26 27 (No comments) 28 29 CHAIRMAN BAKER: Sound like a plan. 30 31 MR. ARMSTRONG: Yep. 32 MR. HOWARTH: Yes. 33 34 35 MR. SHIEDT: Yes. 36 37 CHAIRMAN BAKER: All right, so we will 38 go ahead and break until 1:00 p.m., at which time we 39 will reconvene. 40 41 Thank you everyone. 42 43 (Off record) 44 45 (On record) 46 47 CHAIRMAN BAKER: All right. The local 48 time is now 1:02 p.m., if we could make our way back to our seats. Mike Kramer, Vern Cleveland, are you folks 49 50

0218 1 back online with us. 2 3 (No comments) 4 5 CHAIRMAN BAKER: Mike or Vern, are you 6 on the phone. 7 8 (No comments) 9 10 CHAIRMAN BAKER: So we'll go ahead and 11 get started. And I believe Lisa will be projecting up 12 the list of issues for the annual report. 13 14 (Teleconference interference 15 participants not muted) 16 17 CHAIRMAN BAKER: If whoever's shuffling 18 papers could please mute their phone. 19 20 (Pause) 21 22 CHAIRMAN BAKER: For those on the 23 we're just getting things ready here in the phone, 24 room. 25 26 (Pause) 27 28 CHAIRMAN BAKER: Lisa, the floor is 29 yours. 30 31 MS. HUTCHINSON-SCARBROUGH: Thank you, 32 Mr. Chair and members of the Council. So these are --33 these are the topics that I believe we came up with so 34 please feel free to add to or change or take out or add 35 something new. 36 37 So Topic -- one of the topics, I just 38 No. 1, is to have understandable as Topic put 39 information reaching the village level. So part of the 40 kind of sub-categories would be that agencies travel to 41 communities to meet and distribute information that is 42 understandable for local communities. So that's not 43 only paper copies, but, you know, more meetings in 44 and explaining things to people in the person communities regarding regulations or what's going on. 45 46 Just some -- you know that is being done but it needs 47 to be improved. And also publications also need to be 48 understandable primarily -- possibly in the Native 49 language, if possible, particularly with the elders 50

0219 1 that Inupiat's their first language. 2 3 Topic 1 would be Federal/State regional 4 coordination of caribou management that engages tribes So, you know, one would be like 5 and communities. 6 example was brought up to talk to Maniilag to get the 7 designated hunter harvest information, that they 8 provide a rec -- apparently they do that. 9 10 Yes, Mr. Howard -- Howarth. 11 12 MR. HOWARTH: Lisa. Mr. Chair. These 13 will be available to us to bring back, this information 14 that you're showing? 15 16 MS. HUTCHINSON-SCARBROUGH: Yes, Mr. H 17 -- through the Chair. Mr. Howarth. You may bring this back to your community and so the -- the point of what 18 19 we're going to do with this is I'll be -- I'll be 20 clarifying -- verifying this with your Chair and he can 21 verify with it you before we send it on, but we will --22 OSM will be typing up your different concerns then they 23 will brought to the Federal Subsistence Board. 24 25 MR. HOWARTH: Okay. 26 27 MS. HUTCHINSON-SCARBROUGH: And so 28 these are topics that the Federal Subsistence -- you're 29 asking the Federal Subsistence Board to look at and to 30 just show that it's concerns that you have in your 31 But these are definitely things that it would region. 32 be -- we can change this. It's not -- I mean if there's other things you want to add after this 33 34 meeting, please let me know, and we can modify the 35 list. And so if you go back to your communities and 36 find out some additional topics that we can add to the 37 list, so this isn't -- this isn't final, final, but we 38 want to get a pretty solid list at this point. 39 40 Thank you, Mr. Howard [sic]. 41 42 Okay, anyway, so Topic 2 is just to --43 to talk to more like cross central -- cross regional 44 coordination of caribou management and engage tribes. So one to be to talk to Maniilaq and also the local 45 46 tribes to see -- just in terms of trying to get the 47 numbers of caribou that are harvested by subsistence 48 users. And that information that has come up at this 49 meeting is out there, we just need to kind of reach out 50

1 a little bit more and get some of that as well. There's also permits, as has been discussed that has --2 3 we gather information from any of the permit returns. 4 In addition we could incorporate surveys in communities 5 through the tribes, ADF&G, Subsistence Division does this statewide and it would be -- might nice to be -- I 6 7 just added that, it would be nice to incorporate them in the process because they know how to do the surveys 8 9 and they could work with the -- like Attamuk had said 10 that he had worked with them in the past, and -- and to 11 work -- and they work a lot with tribes to gather this information. We could also, you know, incorporate the 12 13 local Refuge and National Park Service that also is --14 understands the regional issues and -- and what's going 15 on as well especially with the caribou biologists. 16 17 Topic 3 was disease and other causes of 18 mortality of caribou. Wrangell-St. Elias National Park 19 and Preserve I just -- this is item -- find out more 20 about what's causing the huge decline on caribou. We 21 had a report on -- on different things that are happening but we -- you know it would be nice to 22 23 continue to support those studies and understand it 24 And also investigate more the sick and better. 25 abscessed animals particularly -- it was brought up at 26 this meeting, you know, caribou puss finding -- like in 27 the tongues of caribou and when it being -- and to 28 support more of what the -- submitting samples for the 29 National Park Service or the Refuge, to submit to --30 for testing to determine the cause. 31 32 Yes. 33 34 CHAIRMAN BAKER: Can we just add in 35 there on the last one, Fish and Game.

MS. HUTCHINSON-SCARBROUGH: Oh, yes, let's do that. So we're going to add in the Alaska Department of Fish and Game as well as National Park Service. Okay.

42 Topic 4. Climate change. Effects on 43 local resources used for subsistence. So that's --44 there's a bunch of different causes but anyway, you know, some of the things that were brought up is just 45 46 your access for subsistence, you know, is the -- is --47 you know, the river's not freezing up as quickly. Like 48 our -- one of our Board members wasn't able to make the 49 meeting because the river hadn't froze up enough in the 50

0220

1 creeks for him to make it to the meeting. I mean that's just one example of impact for this meeting, for 2 example. But that happ -- that's happening more and 3 more and -- and, you know, the weather's becoming 4 5 unpredictable. The cost of living increase is also caused by climate change and there's other things that 6 7 we could add to that, for sure, and just also how -how it's affecting, you know, salmon runs and how it's 8 9 affecting your local whitefish runs and caribou 10 migrations and all that. I didn't have enough time to 11 add all the details but we can add that in our topic. 12 13 Topic 5 would be full Council 14 membership, including alternates with better geographic 15 distribution. So we had some good conversations on how to do that. It started with this meeting and hopefully 16 17 those of you listening on the radio are becoming 18 interested in applying but we're -- you know, we need 19 to have this a group effort between OSM and agencies, 20 tribes and the local Native organizations to try to get 21 more membership and participating in the RAC. 22 23 Topic 6 increase the term limit of 24 Council members from three to five years. I believe 25 that's what we were suggesting. Is that kind of what 26 you were thinking Mr..... 27 28 CHAIRMAN BAKER: It was to explore the 29 possibility of doing that. 30 31 MS. HUTCHINSON-SCARBROUGH: So Topic 6 32 would be to explore the possibility of increasing the 33 term limit of Council members. 34 35 And I believe that the justifi -- the 36 reason for that, and, Attamuk, I believe you were the 37 one that mentioned that, it's just to kind of -- I don't know if I phrased that right but really to 38 maintain your experienced Council members, but also to 39 40 be good mentors for your younger ones. Was that part 41 of your reason to give more term. 42 43 MR. SHIEDT: No, the reason why I 44 brought that up is that to increase our term limits is a few years ago we had a hard time because none of us 45 46 were never approved by Congress to keep serving and by 47 the time my three year term expire, we were expired, we 48 were no longer in there and that's why, it takes them 49 so long just to say you are on the Federal Advisory 50

0222 1 Board, that is why. And for years we've been pushing this to five years. Even before Thomas' time I've been 2 3 pushing it for years, we need to increase it, serving 4 time from three to five years. That was my reason. 5 Because a couple times, a few of my fellow Council members -- that's why a lot of them quit because they 6 7 were never renewed on time due to management turnover 8 in Congress. 9 10 MS. HUTCHINSON-SCARBROUGH: Thank you, 11 Mr. -- thank you, Attamuk, through the Chair, for 12 clarifying that on the record and we'll make sure that 13 that gets in -- is a reason. 14 15 So the topic that I have there, important to maintain experienced Council members and 16 17 to mentor new Council members, would that be a reason 18 as well or should we just take that off? 19 20 MR. SHIEDT: Could you go through the 21 Topic 1 please. Okay, that one here, Topic 1, agency 22 travel -- when we travel to the communities, if you 23 have -- I know you guys got money it's just you guys 24 don't like to spend it. Take it to the topic -- if 25 there's a concern in the village, like our caribou, or 26 whatever, that they migrate through, that's where the 27 meeting should be at. If there's a problem at Kiana, 28 that should be at the Kiana meeting. That's what we used to do when we -- when I was with the Western 29 30 Arctic Caribou Herd management planning, we even had 31 one in Point Hope because they have problems, we had 32 one in Kiana, and we had one in Selawik, that's the way 33 it usually migrates, and I think that's the best way we 34 could -- that the people could hear us. And always 35 invite the radio station when we're going to travel to 36 the villages. 37 38 And if you go back to Topic 3, what you 39 need to do, if you're going to take samples of the sick caribou or any fish or whatever, I think the people 40 that take the samples need to tell us how is the best 41 42 way to take a sample without contaminating the piece 43 you're getting. If they're going to send out a sample, 44 make sure they're knife is clean, or what's the best way to do it, put it on Ziplock or what before they 45 46 send it out that way it won't get contaminated from the 47 knife. 48 49 UNIDENTIFIED VOICE: And, Mr. Chair, 50

0223 1 COD. 2 3 MR. SHIEDT: I had -- I used to send 4 out samples a lot when I was at Maniilaq, the reason 5 why that's important because one time -- a couple times 6 when I sent it out they said it was contaminated, 7 probably from the knife itself because it already had 8 blood from another caribou. 9 10 And the other one, it's not up there 11 but I think what we need to do -- in order for us to get our people more involved, we need to start inviting 12 13 more of the high school students to attend the meeting, 14 invite them. They'll be glad to get out of school just 15 to be here. That way hopefully one of them decide to 16 join us in the future. 17 18 MS. HUTCHINSON-SCARBROUGH: Mr. Chair. 19 I don't know if this is appropriate for me to say this 20 but when I worked -- worked for Fish and Game back when 21 the harbor seals and sea lion populations were crashing 22 we had a program for bio-sampling for the -- the 23 hunters for the sea lions and Fish and Game was able to 24 get money for a bio-sampling program, I think actually 25 NMFS helped as well, National Marine Fisheries Service 26 to train -- have some agency person go to the community 27 and train a couple of the hunters in the community how 28 to gather samples and then there were kits that were 29 provided for them so any time a hunter went and got a 30 sea lion, for example, they -- this person would come 31 and take a sample and do it appropriately and then 32 there was money provided to send the sample in. I mean 33 that's something that maybe, you know, could -- we 34 could talk about, or be a concern, or it could be done. 35 I don't know if it's an FRMP funded project but maybe 36 the National Park Service funds something like that or 37 Fish and Game or OSM could come up with that. It's 38 just an idea. 39 40 Thank you, Mr. Chair. 41 42 CHAIRMAN BAKER: Thank you, Lisa, you 43 have the floor. 44 45 HUTCHINSON-SCARBROUGH: MS. Okav. 46 Okay, so should we maybe just kind of go through all of 47 these and then we'll go back up to the top and then 48 just kind of make sure we clarify everything. 49 50

0224 CHAIRMAN BAKER: Yes, I believe we're 1 2 back down to.... 3 4 MS. HUTCHINSON-SCARBROUGH: So topic --5 did we talk about the one above six. 6 7 CHAIRMAN BAKER: Yes. 8 9 MS. HUTCHINSON-SCARBROUGH: Okay. So 10 Topic 7 was -- I had predator concerns, interfering 11 with subsistence activities and, you know, safety of 12 the community. And that's -- okay, so..... 13 14 CHAIRMAN BAKER: So the key takeaway 15 from that topic is increasing studies -studv opportunities for managing predators and seeing how 16 they affect the animals that we're focusing on, 17 18 subsisting on. 19 20 KRAMER: MR. Please use your 21 microphone, can't hear you. 22 23 CHAIRMAN BAKER: Thank you, Mike. So 24 what I just said is the important part about this Topic 25 7 is increasing study opportunities for managing predators and how they affect the subsistence resources 26 27 that we're relying on, such as the caribou and moose as 28 well as best management practices. 29 30 UNIDENTIFIED VOICE: Hello. 31 32 MS. HUTCHINSON-SCARBROUGH: Mr. Kramer, 33 were you able to hear that? 34 35 MR. KRAMER: Yes, I was, thank you. 36 37 MS. HUTCHINSON-SCARBROUGH: Okay. So 38 why don't we just go back up to No. 1 and just sort 39 of.... 40 41 UNIDENTIFIED VOICE: Hello. 42 43 MS. HUTCHINSON-SCARBROUGH: .....refine 44 it a little bit. And if there's anything in addition 45 that you wanted -- that I missed, please..... 46 47 UNIDENTIFIED VOICE: Hello. 48 49 CHAIRMAN BAKER: Hi, can you please 50

0225 1 identify yourself? 2 3 (No comments) 4 5 CHAIRMAN BAKER: So if someone's 6 attempting to speak right now please unmute yourself so 7 that we can know who we are speaking with and if it's 8 appropriate to make a comment at this time. 9 10 (No comments) 11 12 Lisa, if you would CHAIRMAN BAKER: 13 please start with Topic No. 1. 14 MS. HUTCHINSON-SCARBROUGH: 15 Okay. Mr. 16 Chair. Council. So Topic 1, again, was just to have 17 understandable information reaching the village level. So is this a topic that we want to kind of refine and 18 19 pass on to the Board as a concern for this region? 20 21 CHAIRMAN BAKER: Yeah, Lisa, so I think 22 with this one it's pretty imperative that we include 23 this in the report just because it kind of touches on 24 everything else that we're discussing with the other 25 topics for the report. The most important thing being 26 that it's coming from the villages, it's coming from 27 the subsistence users in the region. 28 29 MS. HUTCHINSON-SCARBROUGH: Do other 30 Council members agree. 31 32 (Council nods affirmatively) 33 34 MS. HUTCHINSON-SCARBROUGH: I'm getting 35 some nods, yes, so we'll go with that. 36 37 MR. ARMSTRONG: Yes. 38 39 MR. HOWARTH: Yes. 40 41 MS. HUTCHINSON-SCARBROUGH: And if 42 there's any other sort of points -- bullet points you'd 43 want to address at this point you could just please let 44 me know. 45 46 Federal/State cross regional Topic 2. 47 coordination of caribou management that engaged tribes 48 -- engages tribes and communities. So is this a topic 49 that you find important for the region that we would 50

0226 1 like the Federal Board to know? 2 3 CHAIRMAN BAKER: Yes. 4 5 MS. HUTCHINSON-SCARBROUGH: Other Council members do you agree that it's important? 6 7 8 MR. HOWARTH: Yes. 9 10 MS. HUTCHINSON-SCARBROUGH: Thank you, 11 Mr. Howarth. And if any of you have questions about 12 this along the way, it's -- you know, while we're trying to accomplish it's -- Topic 3, disease and other 13 14 causes of mortality of caribou. So you want to --15 basically want to continue studies to find out really 16 what is causing the huge decline in caribou since this is a major concern that has been brought up at this 17 18 meeting and for your region you rely heavily on caribou 19 and with the numbers going down there's -- there's --20 I'm taking as your biggest concern for your communities 21 regarding subsistence and sustaining yourself. 22 23 And then I -- I -- we just kind of -- I 24 combined the diseases and causes of mortality just sort 25 of together because it's related, I believe, so if that 26 sounds good to you we can just keep them together. 27 28 (Council nods affirmatively) 29 30 MS. HUTCHINSON-SCARBROUGH: i'm getting 31 And Topic 4, climate change. Effects on nods yes. 32 local resources used for subsistence. We can also --33 we might want to expand on this, effects on not only 34 local resources but subsistence users, I mean it's 35 integrated related but we should probably say that. Because you're -- and then migration I -- we thought 36 37 about migration patterns and salmon and whitefish runs 38 and things. 39 40 Mr. Shiedt. 41 42 MR. SHIEDT: Well, on this Topic 4, for 43 harvest for the sporthunters that -- I think what we need to do is due to the warmer and they coming in 44 later and later and, you know, just before they -- we 45 46 need to change our opening and closing at certain times 47 and where the sporthunters were dropped off -- hunters 48 could go -- and we need to look at the regulations 49 better, and together and maybe make some changes to the 50

0227 1 dates. Because at the times -- at certain area at Noatak on that controlled area you could -- it's closed 2 until a certain time but the caribou are coming in 3 4 later so I think the date need to change with the -due to global warming. Do you hear what I'm saying, we 5 need to change that, to help the people, that way they 6 7 are able to harvest their food for the winter. 8 9 HUTCHINSON-SCARBROUGH: MS. Okav. 10 Within -- within that then I think could we add work 11 more with both State and Federal regulations and like 12 during their cycle on -- when the regulatory cycles to 13 change the regulation so that would be an approach that 14 we -- that, you know, is -- it's usually -- it's really 15 the only approach to get regulations changed so the Federal -- your Council we -- for the State we could 16 write a letter on behalf of your Council for certain 17 18 proposals for the State, and the same for the Federal, 19 so you guys can submit a proposal -- the -- who can 20 speak when the next wildlife meeting is? Because we 21 can submit a proposal with the Federal Board as well as 22 the State or the fisheries to work on changing the 23 regulation times. Because climate is an issue, not 24 just for subsistence but for other resources too, and 25 it just doesn't make sense to have an open season if 26 there isn't any resources in your area so. 27 28 This is just me talking. 29 30 Does that make sense to you Council? 31 32 CHAIRMAN BAKER: Ray, do you have something you'd like to add or are you just scratching? 33 34 35 (Laughter) 36 37 MR. MCPADDEN: In response. On the 38 Federal side, I believe January is the call for 39 proposals opens in January and then I think it goes through June for the wildlife cycle, 40 that's my 41 understanding. yeah. So this coming January and then 42 it goes through June for essentially the next kind of 43 normal regulatory round. That's for FSB. 44 45 MS. HUTCHINSON-SCARBROUGH: That's 46 Federal? 47 48 MR. MCPADDEN: Yes, that's Federal. 49 50

0228 1 CHAIRMAN BAKER: Thank you Ray McPadden 2 with the Park Service. 3 4 MR. MCPADDEN: Yeah, Pardon me. 5 6 (Laughter) 7 8 CHAIRMAN BAKER: So with that, I think not only for the regulations is it important that we 9 10 try to update what we can because of climate change but 11 also put in there the need for more studies because we 12 do have baseline data on a lot of this stuff but as has 13 been brought up, with climate change, things are 14 changing, things are altering, so seeing what changes 15 have taken place over the last X amount of years due to 16 climate change when it comes down to caribou migration, 17 when the first snow falls, when this, when that, just 18 so that we have a better understanding of what's going 19 on in these natural habitats as time moves forward. 20 21 MS. HUTCHINSON-SCARBROUGH: And we're 22 going to have a climate report here in a little bit so 23 Brian's going to be giving us -- National Weather 24 Service so maybe he'll give us a little background on 25 that and give us some more thought. 26 27 Topic 5. Full Council membership 28 including alternates with better geographic 29 distribution. I think that was pretty clear but 30 everybody -- we all believe that that's important. 31 32 And, again, it's a group effort for 33 outreach to -- to try to get more applicants, particularly in the -- in all of the communities, that 34 35 would be ideal. 36 37 Nobody can -- they cannot -- nobody can 38 be -- by the way nobody can be appointed to this 39 Council if you haven't applied so that's kind of the 40 bottom line. 41 42 Topic 6. Explore possibility of 43 increasing the term limit of Council members and so we wanted to, you know, maybe three to five years. So 44 that's something we can -- it's pretty kind of straight 45 And then we need to change the reason for 46 forward. 47 that, Jessica -- or who's writing that up -- mostly 48 because the process of getting -- once you fill out an 49 application and actually getting your appointment 50

0229 1 letter is delayed and sometimes people -- the Council is empty and we don't have seats filled. 2 3 4 And Topic 7. Predator concerns. 5 Again, interfering with subsistence activities and 6 safety of community. I think we already talked about 7 that. 8 9 CHAIRMAN BAKER: Well, I 10 think.... 11 12 MS. HUTCHINSON-SCARBROUGH: So anyway 13 Council was there anything else. 14 15 CHAIRMAN BAKER: I think that given how 16 closely related they are, Topics 5 and 6 can be combined so that we have, as Topic 6, can just be some 17 points under 5 since they're regarding 18 bullet 19 membership, and then the predator concerns topic can 20 become the new Topic 6 unless there's any objections 21 from the rest of the Council. 22 23 (Teleconference interference 24 participants not muted) 25 26 MR. ARMSTRONG: On No. 6, I think we 27 could work with the State and change the Federal instate regulations on bag limit and on the language 28 29 concerning taking of bears. 30 31 CHAIRMAN BAKER: So whoever's typing, 32 yeah, what is right now Topic 7, that is going to be 33 changed to No. 6. 34 35 MR. ARMSTRONG: Bears and wolves. And 36 then the National Park Service, I think if we get a 37 bear there we have to take the bear home for 38 consumption. 39 40 MR. DALLE-MOLLE: Yes. Joe Dalle-Molle with the National Park Service. 41 That's correct. 42 Essentially if you're hunting under the Federal 43 subsistence regulations..... 44 45 UNIDENTIFIED VOICE: Eat the bear. 46 MR. DALLE-MOLLE: ....and if you're 47 48 hunting under State regulations in the Preserve you don't necessarily have to take the meat but you would 49 50

have to take the hide and the skull and potentially get 1 that sealed. There's a few more details to go into on 2 But if you're specifically hunting under 3 that. 4 subsistence practices in Cape Krusenstern National Monument or Kobuk Valley National Park the meat would 5 have to be salvageable. We are just kind of the 6 7 opposite from the State regulations so you would not 8 have to harvest the skull or the hide. 9 10 MR. ARMSTRONG: All right. Then maybe 11 we could do a proposal on a regulation just stating --12 because we talk about predator control and through all 13 the talks we've had, there's a lot of bears, there's a 14 lot of wolves, and it's affecting caribou migration and 15 affecting the numbers so I think we need to come up with a proposal to change the language and to predator 16 control. Because I know that just what he was saying 17 18 about hunting for subsistence use you'd have to take 19 the bear home with you. 20 So I think, 21 CHAIRMAN BAKER: Elmer, 22 with what Ray said a little bit ago about how the next 23 round for proposals starts in January this might be 24 something we can work out at our next meeting, this 25 winter, so that that way this will go in with the 26 annual report that it is an issue and then at our next 27 meeting we'll have the whole time to say this is what we want, this is the proposal we'd like to send so that 28 29 we can have everything prepared for it. 30 31 MR. ARMSTRONG: All right, thank you. 32 33 MR. CLEVELAND: Hello. 34 35 CHAIRMAN BAKER: Hi. 36 37 (Laughter) 38 39 MR. CLEVELAND: Hello. Can you guys 40 hear me? 41 42 CHAIRMAN BAKER: Please identify 43 yourself. 44 45 MR. CLEVELAND: Vern Cleveland, 46 Noorvik. 47 48 CHAIRMAN BAKER: Hi Vern. Do you have 49 anything you'd want to add? 50

0231 1 MR. CLEVELAND: Yeah, I just heard about bears, were you -- what's about just taking the 2 3 skin and leaving the meat, that's unheard of. If you 4 shoot a bear you take it home for consumption, you don't leave the meat out there. This is wrong. I mean 5 6 if you're going to shoot a bear and you take it home 7 and you have subsistence food. If I'm hearing wrong, this is -- wow, just outrageous, just shoot the bear 8 and leave the meat out there and take the skin, that's 9 10 unheard of. I do eat bears. I eat brown bears and 11 black bears. I don't know what this is about, but 12 don't get me wrong, we got some people that eat bears 13 and live off bears. And you might be sending a wrong 14 message just shooting a bear and just take the hide, if 15 you don't get me wrong. 16 17 Thank you. 18 19 MR. ARMSTRONG: Yeah, this is Elmer. I 20 was talking about that and it was concerning National 21 ParkLands. 22 23 CHAIRMAN BAKER: So any other comments. 24 25 MR. CLEVELAND: No matter where I get a 26 bear I would always bring it home, not just leave it 27 out there. 28 29 CHAIRMAN BAKER: Thank you, Vern and 30 Elmer. 31 32 MR. CLEVELAND: On any land. You just don't go out there and shoot an animal and take the 33 34 I think you're sending a wrong message right skin. 35 there. 36 37 Thank you. 38 39 CHAIRMAN BAKER: Thank you, Vern for 40 your comments. Do we have anything else that we like 41 to amend or change with the issues brought up for the 42 annual report. 43 44 MR. CLEVELAND: Being on the phone, 45 could you please address what page you're on and what subject you're on because it's pretty hard for me to go 46 through this book. 47 48 49 Thank you. 50

1 CHAIRMAN BAKER: So, Vern, right now, we would be on Page 42, identifying issues for FY22 2 annual report but what we're doing in the room is we're 3 4 typing everything up that we're talking about so that 5 we can write it down and then we're going to email it 6 out, once we have it written up, so that we can approve 7 it approve it. 8 9 MR. CLEVELAND: Taikuu, Mr. Chair. 10 11 MS. HUTCHINSON-SCARBROUGH: Yeah, and 12 -- through the Chair. Yes, I -- if you would like me to reread these, I'm sorry that you can't see them 13 14 visually, it must be hard for you, but I can reread the 15 topics if that's important. 16 17 CHAIRMAN BAKER: Yeah, Lisa, if you can 18 just read off the topics one through six so that we 19 have an overview of what we've been discussing. 20 21 MS. HUTCHINSON-SCARBROUGH: Okay. So, 22 again, Topic -- Topic -- these are items that we're 23 going -- for -- issues of the annual -- we call it just 24 the annual report that we're going to be submitting to 25 the Federal Subsistence Board of concerns for your 26 region. 27 28 Topic 1. Understandable information reaching the village level. Just to make it so people 29 understand more of what it is that -- communicate 30 31 better between the agencies and the communities. 32 33 Topic 2 is Federal/State cross regional 34 coordination of caribou management that engages tribes 35 and communities. 36 37 Topic 3. Diseases and other causes of 38 mortality of caribou. So increase the -- increase 39 studies to find out about that. 40 Climate change. 41 Topic 4. Effect on 42 local resources used for subsistence including on your 43 communities. 44 45 Topic 5. Full Council membership 46 including alternates with better qeographic 47 distributions. Sowe want to get moreCouncil members --48 a full Council and also distributed throughout your 49 region better. 50

0233 1 And Topic 6. Predator concerns 2 interfering with subsistence activities as well as 3 safety for the community. 4 5 So those are the three [sic] topics 6 we've come up with ..... 7 8 CHAIRMAN BAKER: Six. 9 10 MS. HUTCHINSON-SCARBROUGH: .....six --11 I guess it's six topics, yes. Thank you. 12 13 CHAIRMAN BAKER: So with that do we 14 have any more questions or comments for these issues 15 and this is an action item, correct? 16 17 MS. HUTCHINSON-SCARBROUGH: Yes, this is an action item. And I will be -- we'll be -- I'll 18 19 be fine tuning this but if you agree on the general 20 topics we need to vote and support that today and then 21 I will be sending it -- the first draft to your Chair 22 and then he will -- we will kind of work it through and 23 then you all will get a copy of that before it gets 24 sent to the Federal Board. So thank you. 25 26 CHAIRMAN BAKER: So with that do I hear 27 a motion to approve these six topics as the general 28 topics for the annual report that will be fine tuned. 29 30 MR. ARMSTRONG: Mr. Chair. I make a 31 motion to adopt the topics. 32 33 MR. SHIEDT: I'll second it. 34 CHAIRMAN BAKER: 35 Thank you. Moved by 36 Elmer, seconded by Attamuk. All those in favor of 37 adopting the six topics please say aye. 38 39 IN UNISON: Aye. 40 41 CHAIRMAN BAKER: And those opposed same 42 sign. 43 44 (No opposing votes) 45 46 CHAIRMAN BAKER: It appears we have a 47 majority and we will go ahead and adopt these topics 48 for the annual report. 49 50

1 So with that we will go ahead and move on to agency reports. At this time do we have any 2 tribal governments that would like to make an agency 3 4 report. 5 6 (No comments) 7 8 CHAIRMAN BAKER: Hearing and seeing 9 none we will go on the National Weather Service. Dr. 10 Brian Brettschneider, if you could introduce yourself 11 for the record, the floor is yours. 12 13 MR. BRETTSCHNEIDER: Thank you, Mr. 14 My name is Brian Brettschneider. Chair. I am a 15 Physical Scientist and a Climate Scientist with the National Weather Service, NOAA, with the Alaska region. 16 17 So I'm here today to talk about the winter outlook but 18 with that said I'm also happy to -- I know practically 19 every topic that's been discussed for the last two days 20 since I've been here has had a climate change nexus so 21 I'm happy to address that to the extent that I can. My 22 email address is up on this introductory slide, it's 23 also in the packet here and also is, I believe Tab 5 in 24 the supplemental materials. So I welcome anybody to 25 send me an email at any time with any kind of question 26 and I will do my best to answer it or find someone who 27 can answer. 28 29 So this winter, this late fall and this 30 winter, you know, we here with NOAA, the National 31 Weather Service, you know, we have a couple of things 32 we're looking at for estimating what the upcoming winter conditions are going to be like. And there's 33 34 really three things that we're kind of focused in on. 35 36 The first is LaNina, and some of you 37 may have heard of this before. But LaNina is a cooling 38 of the waters in the Central Pacific Ocean and that 39 actually has a global effect on the weather. So this is year three of a LaNina and typically in LaNina 40 41 winters in Alaska it's colder than normal. So if we 42 had ElNino, which is a warm part of the tropical 43 Pacific it's almost always a warm winter in Alaska. 44 When it's a LaNina winter, like this upcoming winter is forecast to be, and the last two winters, it's more 45 46 likely than not that it'll be a little cooler than 47 normal, and sometimes a lot cooler than normal. A lot 48 of variability. But more times than not it's cooler. 49 50

1 Now, like with everything in Alaska, everything is -- we're warming with time. 2 So even 3 though this LaNina, probably, but not guaranteed, would 4 lead us to believe it's going to be a cooler than LaNina's are getting warmer so, you 5 normal winter. know, what used to be a good cold winter 50 years ago, 6 you know, is not as cold as that anymore, and the same 7 holds through with LaNina's [sic]. So kind of keep 8 9 that in the back of your mind. And so then the -- so 10 LaNina's one of the three things driving our winter 11 outlook. 12

13 The second thing is the sea ice and, 14 more specifically, the lack of sea ice. This chart was 15 generated about 10 days ago. With the numbers I just finished up, that were computed yesterday, that the 16 Chuckchi Sea had its seventh lowest sea ice on record 17 18 and that's not as bad as some of the other years in the 19 last decade but seventh, you know, as far back as 20 records go is not very good, of course. And with all that open water it justkeeps things warmer when it's --21 22 when the water is ice covered it keeps a lid on those 23 warm temperatures. This is a chart I made, I made this 24 yesterday, it kind of shows -- a lot of times I get 25 asked, well, okay, this is what the sea ice this year, 26 what was it like last year or the year before and 27 people want to kind of make a comparison, so here's 20 28 years of sea ice for October 31st and, you know, we're 29 just starting to get a little bit of sea ice, some 30 shore fast ice along many of the coastal areas from the 31 lower Kuskokwim Delta, you know, all the way up along 32 the coast through the Bering and Chuckchi Seas. In 33 general the Chuckchi Sea is about where it's been in 34 the last 20 years and the same with the Beaufort Sea. 35 So, you know, historically, say more than 20, 30 years 36 ago, this would be a very poor to the start to the sea 37 ice year but for the last 20 years it's fairly typical. 38 So again it may seem okay but by historical standards 39 it's not.

41 Okay. So let's get into some of the 42 numbers here. So this is official NOAA climate 43 prediction center temperature forecast for the month of 44 November, of course today is November 1st. This was 11 days ago, or 12 days ago now. 45 issued about 46 Yesterday afternoon, I didn't have a chance to get it 47 in here but they did an update for this, but basically, 48 you know, it's showing warm in this part of the state 49 and kind of near normal in the rest of the state. Now, 50

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1 the update that came up yesterday for Northwest Alaska looks the same but then for Southeast Alaska they 2 colored in some blue for some below normal. And really 3 4 what you're seeing in this is a combination of, again, LaNina, the reduction in sea ice, but then the third 5 thing is trend, or climate change. You know if you 6 7 know nothing else, if you had no information, no tools, no internet, no nothing and you were just going to say 8 well what is this winter going to be like, it would be 9 10 reasonable to say, well, it's probably going to be 11 warmer than winters used to be. So we do factor that 12 We have a trend, basically a global warming in. 13 adjustment that we make. And so here in the northern 14 part of the state, these kind of above normal shades, 15 that's basically the global warming signal, that's the trend signal. So, again, this is just for November. 16 17

18 Now, if we look at the early -- this is 19 a three month seasonal outlook, so this is November, 20 December, January. Again, you see kind of a pretty 21 similar pattern where we've got above normal for the entire west coast, and it's that second tier of 22 23 shading, so that's the trend but also the reduction in 24 sea ice, and those are kind of overwhelming, even the 25 LaNina signal. So now these -- by the way these 26 forecasts, these are our best tools -- this isn't a 27 quarantee, that doesn't mean this is what it's going to 28 be. You know last winter, in the southern half of the 29 state we were supposed to have a pretty cold winter and 30 we had, I think, an above normal, warmer than average 31 winter, and, in fact, the very warmest winter on record 32 in Alaska was a LaNina winter in 2001. So, again, 33 these are guides, and these represent our best estimate 34 but they're not a guarantee.

36 And then precipitation for the 37 November, December, January period. It looks a lot 38 like that temperature map except for we swapped out shades of orange for shades of green. So, you know, 39 with all that open water in the Bering and Chuckchi 40 41 Seas that really allows more moisture to come in and 42 produce more precipitation and even with those above 43 normal temperatures we would expect most of this to be 44 snow. So this early indication for the early part of 45 the winter looks by all accounts to be fairly snowy. 46

47 Now this is the core winter, so this 48 would be December, January, February. Again, a very 49 similar map with the above normal on the west coast, 50

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1 near normal for the center part of the state and below normal for Southeast. Again, reflecting -- this is 2 3 very -- and if you look at the Lower 48, too, this is a 4 very classic LaNina map. If you were to say give me a 5 LaNina winter outlook map, it would look exactly like this, so that's our best guess for what it's going to 6 7 look like. And same with precipitation, again, we're in that second year of above normal precipitation which 8 9 would indicate a snowier than normal winter. And, 10 again, that's reflective of a lot of the open water in 11 the Bering Sea. And also kind of a more typical storm 12 track. So in addition to that extra moisture we expect 13 a slight increase in frequency of storms coming through 14 to enhance the precipitation.

16 This is a -- so those are official 17 outlooks. Those are the ones that we put in like press 18 releases and, you know, that NOAA got interviewed on 19 CNN and all that kind of stuff. We have tons and tons 20 of computer models and all kinds of internal guidance 21 and tools and this is kind of one of our most important ones and this is a -- called an NMME, North American 22 23 Multi-Model Ensemble. This is basically like a -- we 24 take like seven of the main computer models and we just 25 through them all together and say, well, what's kind of 26 the average of those, and the average of those is --27 will look like this, a very kind of typical LaNina 28 which doesn't look quite as warm here in Northwest 29 Alaska. We're kind of, you know, very close to that --30 the no shading, the kind of white. So a little bit 31 less of a warm signal for this cluster of models from 32 the U.S. and Canada. And if we look at the -- and I 33 don't know why we do this but we do, if we look at this 34 cluster of European models which actually do better 35 than the North American models, so this is the France, Great Britain and the European Union, if you look at 36 37 all their models it kind of has Northwest Alaska, this is for the core winter months, right on that same, kind 38 39 of right on the edge of just above normal to near 40 normal. So not a strong signal either way, very much 41 still looks like a LaNina except for not quite as warm 42 as a LaNina so that's what the Europeans think. And, 43 again, the European models tend to do better than the 44 North American models and that's been the case for at 45 least the last decade. 46 47 But, of course, trends are not our

47 But, of course, 48 friend. 49

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1 So these are the four season trends. You know it shows how much over the last 50 years, how 2 3 much we've warmed in each of the four seasons and 4 there's a whole lot of orange and red on that map, and 5 particularly in the fall months, which is the bottom 6 right and the winter months, which is the top left. So 7 there's -- so, you know, as everyone has alluded to in the talks the last two days and has everyone has 8 9 experienced, it's just warmer than it used to be and 10 there's just no way around that. 11

12 I have a couple of trend maps so I'll 13 just jump through them real quick -- and actually I'm 14 going to skip over a lot of these. But this is kind of 15 the fall trend, which shows for high temperatures which 16 shows warming along the entire West Coast -- and these 17 are all in the packet so I'm going to jump through them 18 real quick but you can refer to the hard copy or the 19 electronic versions. Low temperatures in the fall have 20 warmed more than the high temperatures. So in a lot of 21 ways that's probably more cloud cover which is keeping 22 the lows a lot warmer and also the open water hanging 23 out longer into the fall. Precipitation for this data 24 set, you know, for this region, it's just slightly 25 increased but then if you go, south towards Nome, it 26 shows a very slight decrease. So for fall not a really 27 strong signal. But for the winter, the core winter 28 months, just an incredibly strong signal for much much 29 warmer temperatures for all the northern half of Alaska 30 and Northwestern part of the state, you know, over 31 basically over five degrees -- this is for the high 32 temperatures, and the low temperatures are even more extreme, more than five and a half degrees fahrenheit, 33 34 or, you know, about three degree celsius for half of 35 the state. In some cases it's more like 8 degree 36 fahrenheit up along the North Slope. A largely result 37 of the reduction in sea ice and the later forming of the sea ice in the fall and the early part of the 38 39 And, again, the core winter month trend in winter. 40 precipitation, a slight tilt toward increase here in 41 Northwestern Alaska but we've really had a problem, 42 it's really difficult to measure winter precipitation in tundra areas where it's windy. 43 The equipment is 44 better than it used to be but it's not -- it's still not great. And unfortunately for reasons that are 45 46 outside of my control we've actually reduced -- you 47 know we don't measure snow in Kotzebue, I'm sorry about 48 that, we don't measure it in Nome anymore. We do have 49 some readings here and there but we basically have less 50

0239 1 information than we used to and I wish I had better news on that front. 2 3 4 And I'm just going to skip over that. 5 But the last couple of charts I'm going to show is kind 6 of some long-term trends that are centered right here 7 over Kotzebue. So the nearshore sea surface temperatures, if you average it out over the course of 8 9 whole year, you know, massive increase in the 10 temperatures the last 25 years. Largely -- not just a 11 result of having sea ice, you know, covering the sound 12 for fewer days of the year but when it is open water, 13 that open water is warmer just like it is right now. 14 And then the concentration of sea ice near Kotzebue, 15 again, this is going to be the opposite. So average 16 over the course of the whole year, you know, we're having ice over the water for, you know, 15 percent 17 18 less time in the year. 19 20 And long-term trends of temperatures, 21 you know, last year was kind of a cool year here, most 22 of the state was warmer compared to normal but just an 23 incredibly strong upward trend in annual temperatures, 24 shouldn't be a surprise to anybody. I think someone had 25 requested something about cloud cover and maybe even 26 wind. Cloud cover is extremely difficult to measure, 27 you know, if you have just a few little wispy clouds in 28 the air it gets recorded as overcast, that's the same 29 as heavy clouds that's -- or heavy snowfalling, they 30 get treated the same way so clouds are really, really 31 difficult to assess trends on. But to the extent that 32 we can do that we see a slight increase in cloud cover 33 over time here in Northwestern Alaska. And finally 34 wind speeds and not much of a trend although for a 35 couple of years here it's been pretty windy compared to the long-term. But I'd say over the last 25 years 36 37 there's an upward trend in wind speeds, not broken down 38 by direction or season but with -- well, a bit tick 39 upward a few years ago but generally a trend upward and 40 maybe not quite as variable as it had been in years 41 past. 42 43 So that is my presentation. I'm happy 44 to take any questions about this or anything about 45 climate, climate change and I'll do my best to answer. 46 47 Thank you. 48 49 CHAIRMAN BAKER: Thank you, Brian. Do 50

0240 1 we have any questions or comments from the RAC. 2 3 MR. HOWARTH: Mr. Chair, Wilbur. 4 Brian, thank you. Is it going to -- these high temperatures is it going to -- do you think it's going 5 6 to continue like this or is it going to start getting 7 any colder, or our sea ice because we depend on sea 8 ice? 9 10 MR. BRETTSCHNEIDER: Yeah, you know, 11 through the Chair. You know it's expected to be warmer 12 this winter than probably last winter. I assume you 13 meant this winter or did you mean moving forward in the 14 years to come? 15 16 MR. HOWARTH: Moving forward, yes. 17 18 MR. BRETTSCHNEIDER: Yeah, you know, so 19 we really had a regime change with much less ice in the 20 fall and to that extent you can't get less ice in the fall than no ice, which in many respects we're now a no 21 22 ice regime in the fall so we wouldn't expect that the 23 dramatic acceleration that we've had to continue, we 24 would expect though it to increase but at a more gradual slope. There's really nothing in the entire 25 26 climate system that we can look at and say, well, this 27 will end, or this will change, or this will cool things 28 off. So we should expect it to be on average, in any 29 given year there's lots of ups and downs but basically 30 over the rest of your life I would expect it to be 31 warmer, all things being equal. 32 33 MR. HOWARTH: Thank you, Brian. 34 35 CHAIRMAN BAKER: Any other questions or 36 comments from members of the RAC. 37 38 MR. CLEVELAND: Vern, Mr. Chair. 39 40 CHAIRMAN BAKER: Yes, go ahead. 41 42 MR. CLEVELAND: The weather is changing 43 so in 20 years from now, from what you're saying, the 44 water is warming up and in 20 years we're not going to see no ice, is that true? I mean I heard it from 45 46 another guy that said in 20 years that it's going to be 47 like Homer, no ice, it's going to be year-round warm, I 48 mean it's going to happen here in the Northwest. 49 50

0241 1 MR. BRETTSCHNEIDER: Thank you for the 2 question, Vern. Through the Chair. 3 4 MR. CLEVELAND: In 20 years it's going 5 to be.... 6 7 MR. BRETTSCHNEIDER: I'm sorry, I 8 interrupted you, please continue. 9 10 MR. CLEVELAND: Go ahead. 11 12 MR. BRETTSCHNEIDER: So through the 13 We do not expect ice to go away here in Chair. 14 Northwest Alaska, you know, it's always going to be 15 cold in the winter, it's always going to be dark in the 16 winter and that's going to promote sea ice growth, it's just going to be harder for it to get started in the 17 18 fall and it'll be easier for it to start melting away 19 in the spring and early summer. There are no computer 20 models that predict an ice free Chuckchi Sea, Northwest 21 You know we basically expect it to be ice Alaska. 22 covered, you know, for generations. Now, in the 23 summer, you know, it's possible that there may be 24 little to no sea ice in the high Arctic, you know, in 25 the summer but we would always expect it to form back 26 in the winter, again, maybe not as far, maybe not as 27 thick, you know, it might not be safe for traveling but 28 we do expect for there to be Arctic ice in the cold 29 season for the foreseeable future. 30 31 Thank you. 32 33 MR. CLEVELAND: I just suggesting that 34 what if, in 20 years, there's no sea ice, most of us 35 are not going to be here in 20 years, maybe, you never know, I might give you call in 20 years and tell you, 36 37 hey, I was right, and then what, you know. 38 39 MR. BRETTSCHNEIDER: Well, I mean you 40 have to look at it from..... 41 42 MR. CLEVELAND: 20 years is a long 43 ways, with this global warmer it's going to be warmer and warmer every year and it's going to happen in 44 45 Northwest. 46 47 Thank you. 48 49 MR. BRETTSCHNEIDER: Yes. And, again, 50

1 through the Chair, you know, if we look at it as an exercise and, you know, thermodynamics, even the most 2 3 -- even the worst case scenario warmings projections 4 would still leave us with ice in Northwest Alaska in the cold season for the foreseeable future. 5 Again, less -- fewer number of 6 days and not as thick 7 concentrations, lower, but, again, there's no scenario where the, you know, the equations of heat transfer 8 would mean that there would not be any ice here so you 9 can pretty much count on that. 10 11 12 MR. CLEVELAND: Thank you. 13 14 CHAIRMAN BAKER: Thank you. 15 16 MR. HOWARTH: 25 years from now, Vern, 17 you will be using your bathing suit. 18 19 (Laughter) 20 CHAIRMAN BAKER: One thing that you 21 22 mentioned, Brian, that stuck out to my ear was that you 23 don't -- the National Weather Service doesn't measure 24 snowfall in Kotzebue anymore, is that a lack of 25 funding, is that an administrative change due to 26 Staffing, what's the story behind that? 27 28 MR. BRETTSCHNEIDER: Thank you, Mr. 29 Chair. So, you know, we have, I believe 12 locations 30 around the state where we launch weather balloons and 31 we do it right here in Kotzebue, just on the other side 32 of the end of the runway, the west end of the runway. 33 And a few years ago we installed what's called an AROS, 34 an automated roiswand observation system, basically 35 it's a robot, it launches the balloons by itself. We 36 used to have at all these locations around the state 37 three Staff members in what's we call the WSO, the 38 Weather Service Office, and every night at midnight one 39 of those Staff members went out with a ruler and 40 measured the snow and the snow depth. But with the 41 automated stations now those WSO sites, including 42 Kotzebue has one Staff person and that one Staff person 43 works during the days and does all they can during the 44 day and works hard, but they're not there to measure the snow at midnight when it has to be measured, they 45 46 just can't do that. And so if you look around we no 47 longer get snow measured at Nome, Kotzebue, Bethel, 48 McGrath, Cold Bay, King Salmon, Yakutat, Annette 49 Island, no more snow depth at any of those locations. 50

0243 1 Now we do have others, we have snow tell stations and we have cooperative observers but those kind of long-2 term snow climatologies unfortunately have all been 3 4 broken now. 5 6 CHAIRMAN BAKER: So is there not a 7 robot that can measure the snow? 8 9 (Laughter) 10 11 MR. BRETTSCHNEIDER: You know measuring 12 snow is really hard, especially in the tundra with --13 you know, you might have a drift where it's 12 inches 14 deep and then the next day in your measurement 15 location, you know, where you have your snow stake maybe it's all blown away so -- and then you report 16 17 that there's only a trace of snow or one inch of snow 18 and then the computer's say well that's not right so we 19 got to throw out the observation so it's actually 20 pretty tricky. And even in non-windy places, you see 21 this in the Lower 48..... 22 23 (Teleconference interference 24 participants not muted) 25 26 MR. BRETTSCHNEIDER: .....where they 27 have lots of problems measuring snow. We do have automated stations, we're testing equipment to do that, 28 29 but there's really no substitute for a person sticking 30 a ruler in the ground. It's really the best way to do 31 it. 32 33 CHAIRMAN BAKER: Understood. Thank 34 you. Any other questions or comments for Brian. 35 36 (No comments) 37 38 CHAIRMAN BAKER: Hearing none, thank 39 you for your presentation. And if we have any follow 40 up questions we'll be sure to move them your way 41 through Lisa. 42 43 MR. BRETTSCHNEIDER: Absolutely. And, thank you, again, for having me out here. This is my 44 first time to Kotzebue, it's a beautiful place. And I 45 46 would also like to add, I give a lot of talks to 47 various groups, I've spoken to the Legislature and a 48 number of groups about climate and climate change and I 49 try to incorporate traditional ecological knowledge 50

0244 1 whenever I can and I feel like I've heard a lot the last two days about what's going on on the ground here 2 and so I appreciate that information and I'll be taking 3 4 that back with me and communicating that. 5 6 So, thank you. 7 8 CHAIRMAN BAKER: Yes, thank you. 9 10 MR. ARMSTRONG: Is the effects coming 11 in from the hurricanes that are happening down south. 12 13 CHAIRMAN BAKER: So for the record 14 there is a question regarding effects from hurricanes 15 and typhoons happening down south. 16 17 BRETTSCHNEIDER: MR. Thank vou. 18 Through the Chair. There was a -- as everyone knows a 19 big storm that was the remnants of Typhoon Merbok in 20 the third week of September -- second or third week of 21 September that caused tremendous damage from, you know, 22 the Seward Peninsula southward and we think that 23 there's more -- that it's more likely that the typhoons 24 in the western Pacific, they seem to be curving, you 25 know, taking a clockwise turn and entering the North 26 Pacific and everything has to go just right for it to 27 kind of explosively strengthen like the former Merbok Storm did but there is an indication that that -- those 28 29 scenarios will be more likely than not. And also the 30 Merbok Storm formed in an area where typhoons didn't 31 form before because the water -- you have to have water 32 that's at least 70 degrees fahrenheit for a typhoon or 33 a hurricane to form, and where it formed, the water is 34 typically a few degrees too cool but right now it's 35 extremely warm, it's warm enough that a typhoon was able to form there. So we're also going to expect more 36 37 of that, more of the area where typhoons can form now 38 is a little bit bigger and so it gives even more of an 39 opportunity for those storms to head north into the 40 North Pacific and potentially impact Alaska. 41 42 CHAIRMAN BAKER: Thank you for that 43 And welcome to Kotzebue and thank you for Brian. 44 joining us the last couple days. 45 46 MR. BRETTSCHNEIDER: My pleasure, thank 47 you. 48 49 CHAIRMAN BAKER: So with that we'll 50

1 move on. And I don't believe I mentioned it, it's traditional with the agency reports for a 15 minute 2 3 time limit per agency so just keep that in mind. Next 4 we'll move on to the U.S. Fish and Wildlife Service 5 with Selawik National Wildlife Refuge activity report. 6 7 MR. WIESE: Thank you, Mr. Chair. This 8 is Will Wiese with the Selawik National Wildlife Refuge, I'm the Assistant Manager for Selawik. 9 We 10 currently don't have a manager and that's why I'm 11 sitting in front of you. I'll get to that in a second. 12 13 So this is going to be just a verbal 14 report, although I did type up notes of what I'm going 15 to say and hand them out so you can refer back to them There's copies on the back table 16 later if you'd like. 17 in case anybody in the room wants them and I believe 18 Lisa emailed them out for folks. 19 20 So Selawik Refuge, just a reminder 21 east of here. Selawik Refuqe where we're at, 22 encompasses the whole Kobuk River Delta, south of the 23 river going up past Kiana about 10 miles, the Waring Mountains, and, of course, the whole Selawik Refuge 24 25 Valley, Tag River, Kougerok River, down towards the 26 Selawik Hills. As a wildlife Refuge we were 27 established under ANILCA with three main purposes. 28 29 The first purpose being conserve fish 30 and wildlife, including Western Arctic Caribou Herd, 31 sheefish, migratory birds, salmon. 32 33 A second really important purpose to us 34 is to provide for subsistence opportunity. 35 36 The third main purpose was to maintain 37 quality and quantity of waters. 38 39 So, of course, I talked a little bit 40 about the land that Selawik Refuge encompasses. Of 41 course it also surrounds the village of Noorvik, the 42 village of Selawik, and there's a lot of the people in 43 the region from those villages but also from Kotzebue, 44 Buckland, up river that use the resources on Selawik Refuge, and in our management, we think about that 45 46 every day and it's kind of our focus in all of the 47 decisions we make on Selawik. 48 49 When I say, we, our Staff is myself as 50

1 the assistant manager. Brittany Sweeny next to me, our outreach specialist, you've heard from her quite a bit, 2 she's got a lot of knowledge of the area and a really 3 4 good communicator and gets out to the communities as 5 much as she can. Also, of course, our ologists, Bill We also have Christina Nelson who was here 6 Carter. 7 yesterday, she's sort of the face of our Refuge if you walk in through our office door, she also heads up a 8 9 lot of our environmental education programs. Melissa 10 Brown, who's in the back. Melissa is our newest Refuge 11 employee, she's in Selawik. She's our information 12 technician. She's really, really important for getting 13 information out to the community and bringing 14 information back to us on what's going on. 15 16 MS. SWEENY: Yeah, thank you, Will. 17 This is Brittany. I just wanted to mention for those 18 that Melissa will be -- will have listening, 19 applications for the Council, if anybody wants to 20 apply, and she'll have copies of the presentations from 21 attending these meetings. So for folks out there that are listening if you have questions to followup Melissa 22 23 is one contact person that will be in Selawik but also 24 knows a lot of folks in Noorvik and the upper Kobuk to 25 help with that communication. 26 27 Thank you. 28 29 MR. WIESE: Thanks, Brittany. And 30 folks we haven't heard from or seen yet this meeting. Sean Nelson is our maintenance professional here in 31 32 Kotzebue, has been keeping us warm for almost 20 years. 33 Frank Berry, Jr., who is our maintenance person in 34 Selawik village and also our expert in getting us 35 around out on the country and showing us the lands and 36 waters, having grown up being out there. 37 38 So management updates from Selawik 39 The first thing I want to hit on is the OTZ Refuge. telecom broadband project. What this is is OTZ 40

41 Telecommunications right over here is proposing to 42 build a system of microwave repeater towers to bring 43 broadband internet capability or expand broadband internet capability to the villages in this region. 44 Basically the project will be 30 towers starting at the 45 46 Dalton Highway. A tower approximately every 25 miles 47 and a tower in each one of the communities. The reason 48 Selawik Refuge is involved is the current plan is to 49 have one tower placed in the middle of Selawik Refuge 50

1 on Refuge lands. In addition to that there'll be a couple other towers within the Refuge borders in 2 villages and on NANA lands. So Selawik Refuge, we're 3 4 working with the Bureau of Land Management on permitting this project. The Bureau of Land Management 5 is the lead because they'll have several towers on 6 7 their lands. One important component of this is also understanding what impacts to subsistence there might 8 9 be from having these towers. This is sort of a 10 preliminary chance for you to provide input if you have 11 any right now. But we're just kind of starting this 12 process and I think at the winter meeting we'll more formally be asking for input as to what 13 impacts on 14 subsistence the tower could have. But I want to put it 15 out there now so that folks are thinking about it for the next meeting and if you do have comments now we'd 16 17 take those. 18

19 MS. SWEENY: So on the second page of 20 our Refuge report there's a map there and the one tower that's on Refuge lands is the red dot. 21 It's located 22 right along the main winter trail route between Selawik 23 and Ambler before the trail branches, you know, between 24 the Shungnak trail and the Ambler trail so it will be 25 in a location that will be visible to winter users just 26 for your information as to where we're talking about. 27 The other dots that are shown on the map are other tower locations in communities but not on Refuge lands. 28 29 So we only have, you know, say so or any input on the 30 tower that's on the Refuge lands.

And I wanted to mention that according to the information we have received from OTZ, these towers will have broadband capability so they would improve internet speed in communities, they won't have cell phone capability that we know of so it's not going to improve like village cell service is what we're aware of at this time.

40 MR. WIESE: Thank you, Brittany. So 41 I'll move on from that one. Now and, again, welcome to 42 take comments at the end of at any time. 43

The next thing I wanted to mention was hunting guides and transporters on the Refuge. As far as hunting guides go, the Refuge has one permitted guides to take hunters out on the Refuge. That guide hasn't operated on the Refuge for a few years. Did not operate on the Refuge at all so we had no guided 50

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1 hunters on the Refuge. That guide is not planning to renew his permit and so there'll be an application 2 period in 2023 for hunting guides to guide hunters on 3 4 Selawik Refuge. It's worth noting, you know, the reason that guide is not planning to renew his permit 5 is because there hasn't been out of state moose hunting 6 7 on the Refuge, or in the area, or the whole unit for several years and that's primarily what he would guide 8 9 out there and that hasn't changed. And also the 10 caribou just aren't showing up on Selawik Refuge in 11 time for guided hunters. So we don't really know what 12 to expect as far as interest in that guide permit 13 application period but it will be open in 2023. 14 15 Likewise, we also permit transporters to haul hunters into the Refuge. This year we issued 16 three permits. I've received reports back from two of 17 the three that they did not take any hunters into the 18 19 Refuge. Haven't received the report from the third 20 because those aren't due until December but my 21 understanding from talking to that individual is that 22 they didn't haul anyone into the Refuge either. So it 23 doesn't look like any commercially-supported hunters 24 were out on Selawik Refuge this year. 25 26 CHAIRMAN BAKER: Real guick, Will. When you say that you'll be having an application 27 period for a new guide, does that mean that the Refuge 28 29 only allows one guide at a time? 30 31 MR. WIESE: Yes, Mr. Chair, that's 32 correct. We only have one guide use area so one guide 33 receives a permit. 34 35 CHAIRMAN BAKER: And then for 36 transporters, or air taxis, similar, you only have 37 capacity for three or is that just what you have had is 38 three? 39 40 MR. WIESE: There is no limit to the 41 number of transporters we'll give permits to. Just 42 this year it was only three and typically it's four, 43 this year it was only three that sought out the permit. 44 45 CHAIRMAN BAKER: Thank you. 46 MR. WIESE: You're welcome, Mr. Chair. 47 48 The next thing I'd mention is we did have a law enforcement patrol over the eastern half of the Refuge 49 50

1 this year, a helicopter patrol. That was in response to concerns that non-local residents, non-local out of 2 area people might come and hunt moose on the Refuge in 3 4 places that they have in the past, you know, Wildlife Special Action 21-01 Selawik Refuge was closed to moose 5 hunting this year by out of area hunters and so we 6 7 wanted to make sure we followed up and actually checked to make sure that that rule was being followed. 8 The 9 patrol was in mid-September, usually when the peak of 10 the sporthunters are here hunting moose and happy to 11 report they didn't see any sporthunters on that patrol, 12 or actually any hunters in that up river area where 13 sporthunters usually are. 14 15 CHAIRMAN BAKER: And just to let you 16 know you have five minutes left. 17 18 MR. WIESE: Okay, we're right on track. 19 Next thing I was just going to mention we talked a lot 20 about this yesterday but Western Arctic Caribou Herd working group. I'm acting as the agency lead for the 21 Fish and Wildlife Service at that and I'll be at the 22 23 December meeting. We're really interested in working with Park Service, the State and the working group 24 members to address the caribou issues and I just can't 25 26 stress how much we see that as important going forward, 27 important that management and how plan and 28 participation there. So hopefully the RAC will be 29 represented. 30 31 Next I'11 hand it to Brittany. 32 Brittany was going to give a quick, quick update on the 33 outreach program activities this year. 34 35 MS. SWEENY: Thank you, Will. So, 36 yeah, just one thing about the caribou herd working 37 group is I'm going to be more involved in the 38 production of the Caribou Trails Newsletter this year, 39 the working group's newsletter so I made a note, you know, one possible idea, what happens if you get a sick 40 41 caribou; that could be an article we could put in 42 there. 43 44 But the outreach program, under that program is myself, Melissa Brown and Christina Nelson 45 46 and one of the main projects we do every year is the 47 Selawik Science Culture Camp so I just want to thank 48 all the people in Selawik who worked with us on that. 49 It was really exciting to have the camp in person again 50

1 this year after not having it. I felt like the kids in the community were really happy to have this chance to 2 3 get together again and it was really nice to see elders 4 and kids and everybody coming together. So that was a 5 big success for us this year. I also am happy that Christina Nelson and Melissa Brown were able to do lots 6 7 of outdoor youth activities this summer. I want to Tebbets in Noorvik 8 thank Lonnie and Ellen 9 (Indiscernible) in Noorvik for helping us host those in 10 Noorvik and Melissa in Selawik along with the Selawik 11 Wellness Committee. And we try to focus our youth 12 activities and our outreach in the villages because we 13 know that there is more going on for kids in Kotzebue 14 than there are for kids in the villages. So those are 15 the main things about the outreach program that has 16 happened this year. 17

18 But I also want to say that Alex Hanson 19 from Fish and Game and myself, we were able to travel 20 to Selawik, Ambler, Shungnak and Kobuk this fall to do 21 hunter information meetings. We wanted to thank the 22 tribal offices or cities for helping us to host those 23 and announce them, just to answer any hunters questions 24 about what's happening with caribou and moose and get 25 feedback so we would like to continue to do those 26 hunter information meetings, as you mentioned, Elmer. 27 I think they're a good way for us to hear from folks 28 and to answer people's questions and get out into the 29 villages. 30

31 MR. WIESE: Thanks Brittany. The last 32 thing I'll mention really quickly because we only have 33 a minute is our biological program updates and we've heard a lot from Bill. Bill's been really busy. 34 One 35 of the things I'll highlight is he did install some 36 small sensors to measure stream flow in the Selawik 37 River, Taq, Kougerok and Fish Rivers to give us an idea how much water is flowing throughout the year so we got 38 39 a better understanding for the future of how much water 40 is needed for fish to spawn and move. And they're 41 paired with temperature sensors too so we can look at 42 temperature. And going forward we're going to look 43 closely at whitefish. In the coming weeks we're 44 developing a whitefish plan. We're still monitoring the thaw slump, or mudslide. It didn't look like any 45 46 real major activity there this year but we'll continue 47 to monitor. 48

The last thing is we're always here in

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1 Kotzebue. The office is open every day, Monday through Friday, 8:00 to 5:00 stop in any time. Find us in the 2 phonebook, find us on FaceBook website. We're always 3 4 happy to answer questions about the Refuge or if it's something that's not Refuge related find the right 5 6 person who can answer questions. 7 8 Thank you. 9 10 MS. SWEENY: And Melissa Brown's normal 11 working office is in Selawik, in the city of Selawik 12 building so anybody can also contact her there with 13 questions. Thank you. 14 15 CHAIRMAN BAKER: Thank you, both. Any 16 questions or comments from members of the RAC for 17 Selawik National Wildlife Refuge. 18 19 MR. KRAMER: Hello, Chairman, this is 20 Mike Kramer. 21 CHAIRMAN BAKER: Yes, go ahead, Mike. 22 23 24 MR. KRAMER: I know in the past that 25 the Selawik Wildlife Refuge used to do a lot of waterfowl, you know, take on a lot of waterfowl data 26 27 and stuff like that, you know, tagging. If I remember 28 right -- I'm not too sure who did the swans, they did 29 one up on the Noatak -- the Noatak Delta for swans, 30 who's taking up waterfowl anymore. You know are they 31 putting bands on ducks or geese and when was the last 32 time this was done and who's planning on doing it next because, you know, waterfowl is a very important of our 33 34 subsistence resources. And I've noticed the last five 35 years that it's been well overlooked, you know, population-wise, how's the black brants doing, how's 36 37 the spectacled eider doing, you know, that's one thing that I could recall in the past that, you know, my 38 39 brother took part in, Lance, and Gene Peltola out of Arctic Circle, when they used to go down there and get 40 41 those rocket nets and catch a bunch of ducks and geese 42 and put bands on them and release them. It'd be 43 interesting to see if we could get that started again, 44 you know, I don't know which entity would take that 45 over or start it. 46 47 But it would be very nice for, you 48 know, either Fish and Game, Fish and Wildlife, Park 49 Service, you know, any of them, BLM could try and pitch 50

1 in and try and get some of these waterfowls. I know that we've had a crazy amount of snow geese in the last 2 3 10 years at least, that'd be pretty interesting to find 4 out if we, you know, could get more studies done on 5 haven't seen one done waterfowl. Ι in years. 6 Waterfowls been very overlooked the last how many 7 years so it'd be good to see a couple more studies come 8 up on them.

## Thank you.

12 MS. SWEENY: Through the Chair. Mr. This is Brittany. I know Bill mentioned 13 Kramer. 14 earlier that he doesn't love birds but I do so I'm 15 happy to hear them mentioned. One things that's newer, I guess, is that the Fish and Wildlife Service, you 16 17 know, we have a co-management agreement now for the 18 Alaska Migratory Bird Co-Management Council and so Fish 19 and Wildlife Service also has a Migratory Birds 20 Division that's separate than our Refuge that's based out of Anchorage. So a lot of the ongoing annual 21 22 monitoring of waterfowl populations is done by that 23 Migratory Birds Division and their crews come through 24 every year and do surveys. We usually put fliers out 25 to let people know, hey, they're going to be flying 26 around with this amphibious float plane and that's what 27 they're doing, is they're monitoring the population. 28 They have some specific surveys for scoters as well, 29 other species of concerns. But one of the main other 30 groups that we support and partner with is there's a 31 Northwest Arctic Region Migratory Bird Council that's 32 set up through that AMBCC co-management. And so Cyrus 33 Harris is our region's representative on that and he's 34 the Chair of that Council. Wilbur is a member of that 35 representing Noorvik and there's village reps. So we sort of have a separate meeting all about migratory 36 37 birds and it's a lot of good information shared there. 38 I'd be happy to share that with Lisa as well.

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41 Then the last thing I will say is that Selawik Refuge recently 42 went through our when 43 biological monitoring planning process and we looked at 44 what are some of the most important things on the Refuge for us to pay attention to, birds did come up on 45 46 there, because Selawik is a really rich nesting area 47 for waterfowl so we have scoters on our list, you know, 48 the black ducks and we also have Canada geese on our 49 list to monitor and we selected those because they're 50

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1 important for subsistence and also that they're known to have important habitat on the Refuge. So we do hope 2 to continue to monitor those specifically and we'll 3 4 engage with local people as we plan those projects. 5 6 Thank you. 7 8 MR. KRAMER: Okay, thank you very much 9 for that. 10 11 CHAIRMAN BAKER: Thank you, Mike, for 12 your questions and thank you, Brittany, for the 13 answers. If there are no other questions -- Wilbur. 14 15 MR. HOWARTH: Mr. Chair. I'll just say 16 to Michael that our last migratory bird meeting was 17 just about a month ago or so. And there isn't any Asian flu or anything in the -- the brants, the geese 18 19 and the ducks are all free of that. But Cyrus over at 20 Sisualik, he ran across a brant that land -- because it 21 was flying kind of weird and it started staggering, as 22 it was walking, it fell down, so he disposed of that. 23 And I guess he's supposed to bring it in or something 24 to have it tested. 25 26 And the only bird flu deal that showed 27 up in Alaska was chickens. Two in Wasilla. That was the only flu of any bird and it came out of the 28 29 They're so -- they stay so close together all chicken. 30 the time and nowhere to go, such a small area that they 31 were at. 32 33 Thank you, Mr. Chair. 34 35 MS. SWEENY: Yeah, thank you, Wilbur. 36 Bird flu was a big topic at our last meeting and there 37 were some reports around the state. It was hard to get samples always from subsistence hunters but they did 38 39 say that, you know, bird flu will maybe continue to be around so for people to be observant when you're 40 41 harvesting birds, you know, you can recognize a sick 42 bird. But if birds are cooked then there's no reason 43 to think that people could be sick from this. Be 44 careful when you're harvesting and wash your hands and so on. But there's a bird reporting hot line, I have 45 46 it posted on our FaceBook and so recently we heard 47 calls from Deering about gulls that were being seen on 48 the beach. And so they're still collecting reports if 49 anybody is observing birds that might be sick, we're 50

0254 1 still taking those reports to try to keep track of it. 2 3 Thank you. 4 5 CHAIRMAN BAKER: Thank you, Brittany. 6 If there are no other questions I'd like to thank you 7 both for coming in and everybody else from Selawik National for spending time with us the last couple 8 days. We'll go ahead and move on to the National Park 9 10 Service, which usually has a lot of reports and a lot 11 of information to share, so for this one we'll allow a little bit extra time of 20 minutes total for the Park 12 13 Service and we'll leave about 10 minutes for questions. 14 So first on the list we have Gates of the Arctic 15 National Park and Preserve update with Marcy Okada, 16 Mark Dowdle and Kyle Joly. 17 18 MS. OKADA: Thank you, Mr. Chair. This 19 is Marcy Okada, Subsistence Coordinator for Gates of 20 the Arctic National Park and Preserve. I'd like to refer you to Page 49 of your meeting book for our 21 22 written update. 23 24 So we have a new Superintendent for 25 Gates of the Arctic, Mark Dowdle, and Mark's online for 26 this meeting and we'll have Mark go ahead and introduce 27 himself. 28 29 MR. DOWDLE: Thank you, Marcy. Mr. 30 Chair and members of the Council. I'm Mark Dowdle. 31 I'm Superintendent of Gates of the Arctic National Park 32 and Preserve and I also manage Yukon-Charley Rivers National Preserve to the east. It's an honor to be 33 34 with you today. I started this appointment in April of 35 this year and I had the honor of serving in the Northwest Arctic National ParkLands last winter there 36 37 in Kotzebue. I actually got a chance to meet several of you in person and to attend your winter meeting 38 39 earlier this year and very glad to see Superintendent McPadden there now. He's a great Superintendent and 40 41 has a great team there. I just wanted to introduce 42 myself to you. We do have several updates and we're 43 happy to answer any questions that you have and I'm 44 going to turn it back over to Marcy. 45 46 Thanks. 47 48 MS. OKADA: So for subsistence, just 49 like Cape Krusenstern and Kobuk Valley, Gates of the 50

1 Arctic has a Subsistence Resource Commission which met this past April. The SRC received an update on the 2 3 Ambler Access Road Project and there was much 4 discussion on the Western Arctic Caribou Herd, 5 preliminary results for a moose survey, dall sheep 6 surveys and law enforcement along the eastern boundary 7 of the Park. The next SRC meeting is scheduled for next week, November 9th through 10th in Fairbanks. And 8 9 we will continue to have discussions on the Western 10 Arctic Caribou Herd, this past dall sheep survey, the 11 results, law enforcement, climate change and human 12 impacts on wildlife populations when they're low. And 13 then I'd like to pass it on to Kyle Joly for an update 14 on the Western Arctic Caribou Herd and our moose 15 survey. 16

17 Thanks, Marcy. MR. JOLY: My name's 18 I'm a Wildlife Biologist for Gates of the Kyle Joly. 19 Arctic National Park and Preserve. You had a really 20 nice presentation from Alex Hanson yesterday so I'll try to keep it short. You know one of the things that 21 22 really came across yesterday was later migration and 23 what's driving that. You know one of the things that 24 we were able to assess was the impacts of cold weather 25 and snow on caribou migration. As you know those 26 things tend to push caribou on their fall migration and 27 we've been seeing those things happen later and later 28 but we were able to document that finding which, you 29 know, you subsistence users have seen and known for 30 decades.

32 The other thing that's really important 33 about those migrations is not only are they coming 34 later but less animals are coming across the Kobuk 35 River. So five or 10 years ago we were seeing over 80 36 percent of the collared animals cross the Kobuk River 37 to migrate south and now in the past few years, the 38 past five years we've saw about only 32 percent migrate 39 south so that's a big difference and it's really impacting who can harvest and how much you can harvest. 40 41 Last fall the percentage was up a little bit but it was 42 still one of the latest and fewest animals migrating 43 across, or at least fewer than earlier years, five and 44 10 years ago. Besides weather, the other thing that's 45 probably impacting the migrations is the population 46 With the herd dropping, again, to 164,000, we size. 47 have a smaller herd and smaller herds tend to use less 48 area which means they migrate less. 49

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0256 1 I just want to echo Vern Cleveland's and Alex Hanson's comments, I really appreciated them 2 3 yesterday, you know, the desire to lower harvest. 4 That's one of the few tools that we have direct control over so I'm glad to hear people talking about some 5 ideas of how to lower harvest to try and help out the 6 7 herd especially lowering the harvest on cows. I'm also really interested in Vern's comments about potentially 8 9 using some kind of community reporting, I think that'd 10 be really helpful to help us biologists look at how 11 much impact harvest is having on the herd. 12 13 I'll take any questions on that before 14 I move on to moose. 15 16 CHAIRMAN BAKER: Any questions or 17 comments from members of the RAC for Kyle. 18 19 (No comments) 20 21 CHAIRMAN BAKER: Hearing none, you can 22 move on Kyle. 23 24 MR. JOLY: Thank you, Mr. Chairman. 25 Oh, go ahead. 26 27 (No comments) 28 29 MR. JOLY: Was there a question? 30 31 CHAIRMAN BAKER: No. 32 Okay, thank 33 MR. JOLY: you, Mr. Chairman. I'll move on to moose survey. So this was 34 35 done in Gates of the Arctic but it was done over on the 36 southeast corner of the Park and so it's just out of 37 the Northwest Arctic region but it is very similar habitat to the upper Kobuk and things like that. 38 So I 39 just want to quickly report that we did a new survey this March of 2022. We had an estimate of about 1,300 40 41 moose and that's up from our last estimate which was 42 done in 2015. So some good news just east of the 43 region. 44 45 That's all I have and I'll take any 46 questions on either moose or caribou. 47 48 CHAIRMAN BAKER: Thank you, Kyle. Any 49 questions, comments from members of the RAC. 50

0257 1 MR. KRAMER: Mr. Chairman, this is 2 Michael. 3 4 CHAIRMAN BAKER: Yes, go ahead, Mike. 5 6 MR. KRAMER: Yeah, hi, Kyle. I'm not 7 too sure if I missed the population for Game Management Unit 23. I know that you guys did a lower Kobuk count 8 last year and -- or was it this spring, I'm not sure, 9 10 but, yeah, I was kind of hoping to hear what the 11 numbers are, you know, because moose are starting to 12 get harvested a little more nowadays now that our 13 caribou population has dropped and I'm trying to pay 14 attention to moose and dall sheep, you know, out of 15 Gates of the Arctic and here in the Bairds and the 16 DeLongs. 17 18 MR. JOLY: Yeah, thank you. That's a 19 great question. So hopefully Raime's in the building 20 and he'll be able to answer questions about the Kobuk moose survey. I wasn't involved with that one. 21 So hopefully he'll answer that one. 22 23 24 Sheep surveys, we continue to do them 25 in Gates of the Arctic. Overall sheep populations are 26 down in much of the Brooks Range. This year's survey 27 was relatively stable from previous years but still 28 lower than, you know, what we kind of consider as 29 normal. 30 31 MR. KRAMER: Has there been any local 32 harvest out of Ambler, Shungnak or Kobuk? 33 34 MR. JOLY: Do you mean for sheep? 35 36 MR. KRAMER: Yeah, dall sheep. 37 38 MR. JOLY: I think probably Marcy would 39 know better than me about that. Generally the harvest is pretty low from those villages in the Gates of the 40 41 Arctic. Sometimes we get a few sheep taken by people 42 coming up from Allakaket. Marcy, do you have any 43 additional information on dall sheep harvest? 44 45 MS. OKADA: Yeah, Mr. Kramer, so for 46 Ambler, Shungnak, Kobuk, just to the north of them it's 47 State and Corp lands and there's dall sheep habitat on 48 those lands in addition to Gates of the Arctic so folks 49 don't have to go all the way up into Gates of the 50

1 Arctic to go look for sheep. I think there's only a handful of real avid sheep hunters coming out of the 2 upper Kobuk and then heading into Gates, you know, 3 4 because they have to travel quite a bit of a distance. 5 So as of right now I think if there's any sheep harvest 6 it's pretty low. 7 8 MR. KRAMER: And you guys said that the 9 numbers are stabilizing, but kind of lower than normal. 10 11 MS. OKADA: So unfortunately the dall 12 sheep surveys that were conducted this past July were 13 done in the northeastern and southeastern portions of 14 the Park so the opposite end from Unit 23. And they 15 weren't able to do surveys in the western portion of Gates which is inside of Unit 23. So hopefully that 16 17 area can be surveyed fairly soon. So as of right now 18 we don't have any population numbers for you folks. 19 20 MR. KRAMER: Okay, thank you. 21 22 CHAIRMAN BAKER: Thank you, Mike and 23 and Kyle. If there's no other questions Marcy 24 we'll.... 25 26 MS. OKADA: And if there's.... 27 28 CHAIRMAN BAKER: Go ahead. 29 30 MS. OKADA: ....just -- I just got a 31 little bit more to share just to wrap things up real 32 quick. 33 34 So there was a lot of discussion about 35 orange colored streams yesterday and today and so there's a multi-Park project titled the Rusting of 36 37 Arctic Waters, Using Orange Streams to Identify and 38 Assess Degraded Water Quality Caused bv Metal 39 Mobilization from PermaFrost Soils, and that's a really 40 long title -- but it's a joint project between the Park 41 Service and USGS and it aims to measure the effects of 42 iron mobilization on stream water quality and food webs 43 including resident fish communities. So Arctic soils 44 store large amounts of iron and mercury which can be as permafrost soils thaw. 45 released So these 46 preliminary observations suggest that orange streams 47 reaches have higher iron concentrations, less dissolved 48 oxygen and more acidic water than nearby clearwater 49 streams. So this project would like to work on the 50

Salmon River, the Alatna River, which is in Gates of 1 the Arctic, the Kougaroik River and the Gashashok River 2 3 and they're also looking at possible other potential 4 sites and they're working on their study design. And currently this project is funded from 2023 to 2025. 5 They were able to collect preliminary samples at some 6 7 sites in 2022 and they're waiting for the data from those samples to come back from the lab and then 8 9 they're hoping to present this information at your next 10 RAC meeting in March 2023. And the main contact person 11 for this project is John O'Donnell who works for the 12 Park Service. 13 14 So that's our update for Gates of the 15 Arctic, if there's any further questions. 16 17 CHAIRMAN BAKER: Thank you, Marcy. Any 18 questions for Gates of the Arctic National Park and 19 Preserve. 20 21 MR. HOWARTH: Mr. Chair. 22 23 CHAIRMAN BAKER: Yes, Wilbur. 24 25 MR. HOWARTH: It's Wilbur. You say 26 you're going to be going over to the Salmon River and 27 do some testing, when is that going to happen? 28 29 MS. OKADA: So this project is going to 30 start next year, so this is going to be next year 31 sometime. 32 33 Okay, thank you. MR. HOWARTH: Thank 34 you, Mr. Chair. 35 36 CHAIRMAN BAKER: Thank you, Wilbur. 37 Thank you for that Marcy. Any other questions or 38 comments from members of the RAC. 39 40 (No comments) 41 42 CHAIRMAN BAKER: Hearing none, I'd like 43 to thank the Gates of the Arctic crew for joining us It's now 2:47, we'll go ahead 44 the last couple days. and take a 10 minute break before we continue on with 45 46 the rest of the Park Service reports. 47 48 (Off record) 49 50

0260 1 (On record) 2 3 CHAIRMAN BAKER: So it's now 3:00 4 o'clock and we'll now come back to the agenda item of 5 the agency report from the National Park Service. Next we'll be doing the Western Arctic ParkLands update. 6 7 The floor is yours Mr. McPadden. 8 9 MR. MCPADDEN: Thanks, Mr. Chair and 10 members of the Council. Ray McPadden here, Western 11 Arctic National ParkLands, Kotzebue. A few updates, 12 we're going to go pretty quick. We've had several team 13 members sharing today. 14 15 So we are actively filling several 16 positions. We have good news to share about new hires. 17 One is Emily Creek. She'll begin with us here in just 18 a couple of months as an anthropologist. So she will 19 replace Hannah Atkinson, who I think many people knew, 20 and Emily has a Masters in Anthropology and she 21 currently works for the National Park Service so she'll 22 be moving up here in January. And she'll facilitate 23 our SRC meetings, she'll participate in RAC meetings as well. We're also excited to announce a local hire from 24 25 Kotzebue, his name is Andrew Bell (ph). He'll begin 26 with us as the facility manager for the Parks in 27 January of 2023. He's a long time resident of the area 28 and he's got a great background in construction trades 29 and education. 30 31 In other news, Cape Krusenstern, Pit 6 32 in Cape Krusenstern is a former quarry and gravel pit 33 used in the construction of the Red Dog Road and in the 34 summer of 2022 we began the first phase of a 15 acre 35 multi-year -- what will be a multi-year reclamation effort. So this summer included survey work, earth 36 37 work, revegetation and the site and the goal is to 38 essentially reclaim it back to more natural conditions. 39 40 We also conducted..... 41 42 CHAIRMAN BAKER: Just one second, Ray. 43 44 MR. MCPADDEN: Yeah. 45 46 CHAIRMAN BAKER: I don't think we 47 announced it but for those following in the book, we're 48 under Supplemental Tab 6. All yours. 49 50

1 MR. MCPADDEN: Thanks, Mr. Chair. And most of these things are in a written update and 2 3 there's a few I'm adding just to -- based on the 4 conversation here the last couple days. 5 6 So we resumed field work in community 7 programs this year. It was sort of a back to normal summer for us. We reopened our visitor's center back 8 in the spring and then we were able to keep it open, 9 10 you know, in spite of several spikes in Covid here over 11 the summer. We also saw a return of recreational 12 visitors to Kobuk Valley National Park and Noatak Preserve for float trips, fishing and to visit the 13 14 great Kobuk SandDunes. Our Park Staff also visited a 15 number of villages including Noatak, Kivalina, Ambler and Kiana just to name a few. 16 17 18 We spent a considerable part of late 19 summer implementing, or enforcing Wildlife Special 20 Action 21-01(a) which was the closure of Noatak 21 Preserve to caribou hunting by non-subsistence hunters. of 22 So lots communication with outfitters and 23 transporters and then also conducting enforcement 24 patrols. Joe Dalle-Molle discussed this a little bit 25 yesterday but, you know, my take on this, my 26 observations were that, you know, essentially the 27 closure worked, we didn't see a whole lot of outside 28 activity in the Preserve itself. There were three big 29 game guides that operated in the Preserve but that was 30 for bear hunting and normally we see four big game 31 transporters and only one of those big game 32 transporters operated this year and that was actually 33 north of the Preserve so more in Game Unit 26. So we 34 really did not see, or not that we're aware of, any 35 outside hunters hunting along the Noatak River in what 36 is navigable waters, so did not observe that this year. 37 Not saying it didn't happen perhaps and we're just not 38 aware of it, but we think the closure was pretty 39 effective in doing what it was supposed to do and we didn't see a whole lot of folks kind of pushing the 40 41 navigable waters hunts. 42 43 Okay. 44 45 Last thing, visitor's center still open, we'll move to winter hours. So that's our 46 bookstore and our museum, we'll move to winter hours on 47 48 November 15th and winter hours will be Monday through 49 Friday 10:30 to 4:30. 50

0262 1 If there's no questions I'm going to hand it over to Raime Fronstin. 2 3 4 MR. ARMSTRONG: So they apply for 5 permits to enter the Park? 6 7 MR. MCPADDEN: Yes, so we did have the three big game guides that had -- you know, that 8 typically operate in the Preserve. And then just the 9 10 one transporter that operated this year but that was 11 north of the Preserve. So typically we have four transporters, Elmer, and essentially only one operating 12 13 kind of in the area. So the other three transporters 14 who would typically be dropping, you know, caribou 15 hunters or moose hunters just essentially cancelled their trips and that was, you know, basically because 16 17 of the closure. So, you know, I think it was just, you 18 know, not appealing for most peopleto hunt in kind of--19 with all of the restrictions that were in place, you 20 know, between the full larger, WSA21-01(a) and then 21 also the controlled use area along the -- kind of along 22 the lower portions of the Noatak, so, yeah, we just 23 didn't see a whole lot of activity. 24 25 MR. ARMSTRONG: So you said they were 26 going to Unit 26? 27 28 MR. MCPADDEN: So, the one -- yeah, the 29 one group that was still operating, the one big game 30 transporter company that was still operating were going 31 north of Noatak into 26, that was our observation, 32 yeah. 33 34 Okay. Were there any MR. ARMSTRONG: 35 violations? 36 37 MR. MCPADDEN: In 26 or? 38 39 MR. ARMSTRONG: Yeah. 40 41 MR. MCPADDEN: Yeah, I can't speak to 42 what was happening there but we did not observe any 43 violations in Noatak Preserve. 44 45 MR. ARMSTRONG: That's all, thank you. 46 47 MR. MCPADDEN: Okay, thank you very 48 much. 49 50

0263 1 MR. FRONSTIN: (In Native) Raime 2 Fronstin, Wildlife Biologist with Western Arctic. 3 4 MR. SHIEDT: What'd you say. 5 6 MR. FRONSTIN: Raime Fronstin, Wildlife 7 Biologist. 8 9 MR. SHIEDT: No, you said in Eskimo 10 something. 11 12 (Laughter) 13 14 MR. FRONSTIN: I said (In Native). 15 16 MR. SHIEDT: That's good morning. 17 18 MR. FRONSTIN: (In Native) 19 20 MR. SHIEDT: (In Native) 21 How do you say good 22 MR. FRONSTIN: 23 afternoon. 24 25 MR. SHIEDT: (In Native) 26 27 MR. FRONSTIN: Oh, that's what I tried. 28 29 (Laughter) 30 31 MR. FRONSTIN: I need to go to Hannah's 32 class, which I'm planning on. 33 34 MR. SHIEDT: okay, you're That's 35 trying. 36 37 MR. FRONSTIN: I'm sorry, Christie. 38 39 MS. OSBURN: Hi. This is Christie I'm with the Alaska Department of Fish and 40 Osburn. 41 Game, the Unit 23 Area Biologist. I'll be tagging 42 along on Raime's presentation here. 43 44 MR. FRONSTIN: So Supplemental Tab 7. 45 We have the wildlife report from the Park Service so 46 you can follow along with that or there's handouts on 47 the table up front. I have caribou in here, I won't 48 cover that because we've gotten good coverage of that 49 already. 50

1 So with moose, Park Service and Fish and Game do surveys annually and we cycle through 2 3 different survey areas and you can see that on Page 2 4 of the wildlife report. I have the table and you can 5 see all the survey areas that we cycle through, the years that we've surveyed and then the population 6 7 estimates and then finally we'll answer Mike Kramer's questions about the moose population in lower Kobuk and 8 9 the upper Kobuk. So as most of you know, from 2016 to 10 2018 we had declines in three of the five populations 11 that we sampled, however, the recent -- the most recent surveys in 2019 of the upper Kobuk, 2020 of 23 12 southwest, 2021 of Selawik, and 2022 of lower Kobuk 13 14 have all suggested that our populations have 15 stabilized. They are still at those reduced numbers 16 but they are stable. So the most recent survey we did 17 was of the lower Kobuk this spring and our next survey 18 we plan to do of the lower Noatak in April. 19 20 Any more -- oh, also, you know, we have

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21 heard and understand and share the concerns of everyone 22 regarding the increase in use of moose because of the 23 decrease and inaccessibility of the caribou. So we are 24 planning on doing more extensive statistical modeling 25 on the data that we've already collected from the moose 26 population so that we can incorporate spacial and 27 environmental variables to see if we can relate 28 environmental variables and changes in climate and 29 other things with population increases and decreases 30 and location. So, you know, we will hope to reach out 31 also with -- to get some traditional knowledge about, 32 you know, environmental co-variants that we can include 33 that we may not think about.

And did you have something.

37 MS. OSBURN: Yeah. Many of you might 38 have worked with -- well, at least some of you might 39 have worked with Warren Hanson, who is a research biologist out of Nome. He was the one who kind of 40 41 spearheaded the neonate project in the lower Kobuk the 42 last few years, that project has concluded but we have 43 a new research biologist with Fish and Game, her name 44 is Joel Heppler and she'll be picking up where Warren And at this point we're hoping to start a 45 left off. 46 project in the lower Kobuk, so the same area we did the 47 neonate study to look at survival for short-yearlings, 48 so calves that are about to turn one year old and we'll 49 look at mortality throughout the next several years of 50

0265 1 their life. So we should have more info on that coming out in the next few months and probably be able to talk 2 3 more on that at your next winter meeting. 4 5 MR. FRONSTIN: So Page 3 is dall sheep 6 and there really have been no changes -- yeah, I'm 7 sorry, go ahead Elmer. 8 9 MR. ARMSTRONG: Real quick. I just 10 wanted to ask about what number you use for your 11 thresholds to decide decrease and stable? 12 13 MR. FRONSTIN: That's a good question. 14 So we look at the difference between the two population 15 numbers so once we have two surveys in one area we can compare the two numbers and so we're really just going 16 17 on the survey before. So when you look at, for 18 instance, Selawik 2016, the number -- the estimate was 19 940, 2021 the estimate was 1,036 and that's considered 20 stable because we use a T-test to determine whether 21 those numbers are the same or different or increased or 22 decreased and that's just a statistical analysis that 23 allows us to determine, you know, is this number -- it 24 is -- you know if you look at 1,036 obviously it's higher than 940 but if we go out and survey this area 25 26 every single time, first of all we're never going to 27 count all the moose, right, that's just impossible. 28 29 (Teleconference interference 30 participants not muted) 31 32 MR. FRONSTIN: Second of all our number 33 is going to be different every time, right. So is this 34 number -- is there a large enough difference in the 35 number that we're getting this year versus the number 36 that we got last time to actually say that there's a 37 real difference in the numbers and so for these there's 38 no real difference in the numbers, it's just saying 39 that there's a stable -- they're essentially stable. Does that make sense, I know that's kind of ..... 40 41 42 MR. ARMSTRONG: Yes, thank you. 43 44 MR. FRONSTIN: Okay. 45 46 MR. ARMSTRONG: I just wanted to..... 47 48 MR. FRONSTIN: Yeah, good question, 49 thanks. 50

0266 1 MR. ARMSTRONG: .....understand how you decide stable and decrease. 2 3 4 MR. FRONSTIN: Right. And so that's, again, like so these numbers are reduced from what 5 6 we've seen in the past, right, but from the last 7 surveys is that they're stable so they're not continuing to decline at this moment. 8 9 10 (Teleconference interference 11 participants not muted) 12 13 CHAIRMAN BAKER: So whoever's coughing, 14 please mute your phone. 15 16 MR. FRONSTIN: So on Page 3 is the dall 17 sheep data that we have collected in the past. We 18 attempted a survey in 2020, we -- because of Covid and 19 the different methods that we had to use we didn't get 20 really reliable data so we really have no new 21 information on that for you. 22 23 There is a study -- funding was just received for a study that will begin in 2023 and it 24 25 will last three years and that is a study that is going 26 to develop a more precise, faster and lesser expensive 27 method of monitoring sheep, particularly sheep that are in such small populations, like the ones we see here 28 29 now. And so the emergency closure, you know, is still 30 in effect, it has been since 2014. But we hope to get 31 better estimates of these smaller populations in the 32 future. 33 34 So did you have anything on sheep? 35 36 MS. OSBURN: Yeah. Council, through 37 the Chair. Christie here with the Alaska Department of Fish and Game. We do a separate survey from the Park 38 39 Service and it's a trend count survey so we go out and we just look at a survey  $% \left( {{{\left( {{{\left( {{{\left( {{{\left( {{{\left( {{{\left( {{{}}}} \right)}}} \right.}$ 40 41 minimum count this year, we were able to complete this 42 last July. In over three days of survey we saw 180 43 sheep and that included portions of the Central DeLong 44 Mountains so essentially between Kaktovik and all the way out towards the Wulik Peaks. This was similar to 45 46 what we'd found in 2018 and 2019 so kind of echoing 47 what Kyle had mentioned for the Gates of the Arctic 48 populations, it looks like we might have some stability 49 at this point but a broader sheep survey by the Park 50

0267 1 Service I think is not until two years. 2 3 MR. FRONSTIN: Correct. I believe 4 we're planning that for 2023 or 2024 so. Should I move 5 on to muskoxen. 6 7 MR. ARMSTRONG: Real quick. I just 8 wanted to ask what are you going to do to determine 9 what caused the decrease? 10 11 MR. FRONSTIN: Christie and I were just 12 talking about this. So there have been studies in the 13 past, I need to look in greater depth of them. Our 14 sheep biologist is Will Deacy and he's out of Anchorage 15 and so he really knows more about the sheep than I do 16 and thesurveys. But in the pastthey have shown that --17 I'm not sure if they were here or not, they were in the area, right, where they've shown icing events and 18 19 severe weather events, you know, are definitely -- and 20 deep snow are definitely hard on the sheep and increase 21 their susceptibility to predation. 22 23 Do you have anything? 24 25 MS. OSBURN: Yeah, Mr. Armstrong, 26 through the Chair. Fish and Game is actually hoping to 27 look into some causes of sheep mortality within the 28 DeLongs and the Bairds. This project idea is still very much in its infancy but we're hoping to collar 29 30 individuals and look at, not only rates of mortality 31 but causes of mortality. We've had this somewhat 32 persistent decline for many years and as many of you 33 know we have no current open hunting season. So we'd 34 really like to start investigating why we have this 35 persistent low levels of decline and then what the causes are. Other things that we'd look at would be 36 37 disease monitoring. Ideally we'd incorporate some 38 other aspects such as habitat use and potentially 39 genetics. So lots more in development. We'll probably be reaching out to members of this Council as well as 40 41 other members of the community to see what the public 42 might be interested in finding out more of. So similar 43 to our moose project I say stay tuned and hopefully 44 we'll have more information at your next winter 45 meeting. 46 47 MR. ARMSTRONG: All right, thank you. 48 49 MR. KRAMER: Mr. Chairman, this is 50

0268 1 Michael. 2 3 CHAIRMAN BAKER: Yes, go ahead, Mike. 4 5 MR. KRAMER: Yeah, so what was your 6 guys' total count on the Baird and the DeLong Mountains 7 below and separate. 8 9 MS. OSBURN: Yes, Mr. Kramer, through 10 the Chair. So with the State, ADF&G, we only looked at 11 the DeLong Mountains. The Bairds is primarily Federal jurisdiction and so that's typically completed by the 12 13 Park Service so I don't have numbers on the Bairds. 14 But for the DeLong Mountains for overall the minimum 15 count we had was 180 sheep and of that we had an observed lamb ratio -- lamb to 100 ewe-like at 18 lambs 16 17 per 100 ewes and that was in the central area. We also 18 looked at the western portion of the DeLongs which is 19 more of those Wulik Peak areas and the lamb ratio there 20 was actually quite a bit higher. We saw 39 lambs per 21 100 ewe-like in the western. 22 23 A little info. 24 25 So rams per 100 ewe-like in the central 26 area was 30 rams per 100-ewe-like and then in that 27 western portion of the DeLongs was 47 rams per 100 ewe-28 like and that's just, as I said, a minimum count. So 29 we go out, we fly the survey area and any sheep we see 30 we classify. It's not a standardized survey so it 31 doesn't produce a population estimate but purely a 32 minimum count. 33 34 FRONSTIN: MR. And I do have an 35 estimate from 2019. In Figure 2 you can see there's some -- a break down of the different areas that the 36 37 Park Service surveys and we did do a western Baird 38 survey in 2019 and the count -- the abundance estimate 39 was in the low 200s so pretty low. 40 MR. KRAMER: Okay. I'm pretty sure the 41 42 wolves are doing a lot of picking off. A few years ago 43 I spoke to the Fish and Wildlife Officer and he said he 44 flew by this one peak and at that one time there was 21 45 sheep on that one peak, and he said three months later 46 he flew by and there was only three left and all the 47 rest were down below dead that the wolves stayed down 48 below and picked them off one at a time in the deep 49 snow. But, yeah, there's -- with all these agencies, 50

we got to come up with something, you know, we're kind 1 of looking at -- it'd be nice to be looking at 2 something kind of animal friendly by sterilizing wolves 3 4 and bears. I mean it's better than going out and doing 5 aerial wolf hunts and all this other stuff and aerial bear hunts or whatever. But this way you're taking a 6 7 less interactive way and ensuring that, you know, like I was saying earlier that some animals won't be able to 8 9 breed. I mean if you can get 20 bears a year, you 10 know, in three years that's 60 bears, that's a pretty 11 big dent. And like I said earlier that I talked to a 12 pilot and he said he flew over a sow with four cubs and 13 to be able to bring up four cubs up to almost 14 adulthood, they were right along side mom and they were 15 all just about the same size -- and they were just 16 about the same size as mom, to rear that many young at 17 once that's one pretty tough mom. You know they said 18 they saw a lot of triplets, only a few twins, you know, 19 two cubs but, yeah the wolves and the bears need to be 20 -- start to be controlled, you know, try to find user 21 friendly ways to be able to help bring down the 22 population of the predators. I know that the Park 23 Service and Fish and Wildlife are just like just let it 24 be, let it go but, you know, we got to try to pitch and 25 help because down there they feed elks hay, they dump 26 off bales of hay to feed the elks, you know, I mean we 27 should be able to go out and sterilize some bears and 28 wolves. 29 30 But, yeah, that's all I have for right 31 Thank you for your information on the sheep. now. 32 33 MR. FRONSTIN: Thank you, Mike. I do So muskoxen, we -- ADF&G and Park Service 34 hear you.

35 complete surveys, annual surveys on muskoxen. Annually 36 we survey the core muskoxen survey area which is in 37 your packets on Page 4, Figure 3 and it's essentially Cape Krusenstern up to Cape Thompson and then every 38 39 four or five years we survey an expanded area which goes out to Howard Pass, includes Point Lay and the 40 41 northern part of the Noatak. So in 2022 the core was 42 surveyed and the estimate was 343 which essentially is 43 no change since 2019. I mean there's been a little fluctuation where that's believed to be due to movement 44 45 between that expanded population and the core 46 population. 2020 the expanded survey area was surveyed find an increase in the muskoxen 47 and they did 48 population there. It went from 556 in 2019 to 911 in 49 2020.

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0270 1 So that's all I have for that unless there's questions about muskoxen. 2 3 4 CHAIRMAN BAKER: Just one real brief 5 question Raime. I don't know if this is a you question 6 or maybe an Alex question since I know he was involved 7 with a couple of the muskox that came into town here in Kotzebue this summer. Is there any ideas at this time 8 why the muskox are being kind of pushed closer to 9 10 communities that they traditionally haven't been that 11 close to. I know it's not something that's been 12 studied necessarily but just an observation. 13 14 MR. FRONSTIN: I think we could say, 15 one, the muskox population is growing. And I imagine --16 I mean I don't think anyone has done any studies 17 really on that. I imagine with all of the changes 18 going on that's -- you know that's affecting all of the 19 wildlife, it would be the same. Do you -- Alex, do you 20 have anything. 21 22 MR. HANSON: Briefly I would just say 23 like the encounters -- for the record, through the 24 Chair, this is Alex Hanson. The encounters we saw in 25 Kotzebue were probably, you know, rut activity. These 26 were bulls that were just coming in probably looking 27 for females. Didn't find any in town so we did our best to deal with that. One was obviously killed and 28 29 donated to the local elders. And the other one I was 30 able to push back out of town and did not come back. 31 So that's my quesstimate on what was happening with 32 those individuals, they were just rutty bulls looking 33 for a mate. 34 35 Thank you. 36 37 MR. FRONSTIN: And I do want to keep it 38 short but I want to say that the Park Service -- you 39 know, the Park Service and Alaska Fish and Game hear 40 the concerns about nuisance muskox and we are doing our 41 best to try to address those -- the muskoxen population 42 is increasing and they just opened a hunt on the North 43 Slope, which basically they hunt out of the same 44 population. Another thing is we're very interested in 45 trying to open a culture camp so that we can have more 46 people benefit from muskoxen. So if we can have, you 47 know, one permit where there's a designated hunter and 48 they hunt and we have this culture camp around muskoxen 49 and then a lot of the community members can take home 50

0271 1 some meat I think -- you know, we're looking into that. 2 3 And so -- so next up is brown bears. 4 The last survey was May 2021 for brown bears and that 5 on the Seward Peninsula and this is another was rotating survey so we go Seward Peninsula to the lower 6 7 Noatak, upper Noatak and Gates of the Arctic. And the Seward Peninsula population in 2021 was estimated that 8 9 527. In 2015 was the last estimate in that area and it 10 was 462 and so that population essentially is stable. 11 It's not really increasing or decreasing. The next 12 area is the lower Noatak and we're planning that survey 13 -- hopefully it will be 2024 when we can do that survey 14 and that is the largest population of brown bears in 15 this area as everyone is familiar with. So that's in 16 the works. 17 18 Any questions on the brown bear. 19 20 (No comments) 21 22 MR. FRONSTIN: So finally the wolves. 23 So we have heard your concerns over the years regarding 24 wolves. There haven't been any wolf surveys or studies 25 done in this area in over 20 years so the Park Service 26 began a pilot study in order to determine if we could 27 use DNA to estimate population -- with population sizes 28 and pedigrees and things like that. And so this study 29 unfortunately began when Covid began so kind of our 30 methods had to change a little bit but our first steps 31 were to go out and fly over Noatak National Preserve 32 and look for active den sites. And once we find active 33 den sites we'll -- because wolves have high fidelity to 34 their den sites, they essentially return to the same 35 sites every year, they have a few -- a few dens but, you know, they kind of pick the right one depending on 36 37 the year, so once we can determine where their dens are 38 we can go back very easily and obtain fur samples and 39 scat samples and obtain DNA. We also hope to reach out 40 to local hunters and trappers to get samples for DNA 41 and hopefully, eventually, you know, be able to have 42 some estimates on population size. Currently, just 43 based on the den surveys for the past three years, we 44 have averaged five active dens in Noatak National Preserve and I don't presume that we've seen all of the 45 46 active dens but I think that is the majority of them 47 and, yeah, I can answer questions. I'm trying to be 48 brief, so -- but there is more information in these 49 packets. 50

0272 1 MR. ARMSTRONG: Real quick. Back to 2 the bears, how many were reported taken by hunters? Is 3 there a number? 4 5 MR. DALLE-MOLLE: Just really briefly, 6 Joe Dalle-Molle, again, with the through the Chair. 7 Park Service. We don't have a good number count on that just yet. We have three guides that operate 8 within the Preserve and out of that the most that any 9 10 one guide can take is 12 clients in so it would be a maximum of 12 bears. Most of the guides don't come 11 12 close to that, a couple just bring in a couple clients. 13 I believe the numbers were less than they were in 14 Just off the top of my head, before previous years. 15 the reports are in, I'm estimating maybe in the vicinity of a dozen or so by what I've been hearing 16 17 from the guides. We'll have better numbers at the next 18 meeting for you. 19 20 MR. ARMSTRONG: All right, thank you. 21 22 CHAIRMAN BAKER: Any other questions or 23 comments from members of the RAC. 24 25 MR. ARMSTRONG: Real quick, back to the 26 bears. Those are from non-residents? 27 28 MR. DALLE-MOLLE: And non-subsistence 29 users (no microphone). 30 31 CHAIRMAN BAKER: For the record the 32 answer was for the most part, yes. 33 34 MR. ARMSTRONG: All right, thank you. 35 36 MS. OSBURN: If I may, through the 37 Chair, to followup more on Mr. Armstrong's question. 38 We average about 50 bears sealed out of this area per 39 year and that includes local and non-resident hunters. 40 41 MR. ARMSTRONG: Thank you. 42 43 CHAIRMAN BAKER: Well, if there are no 44 other questions, thank you Raime and Christie. We'll go ahead and move on. There's a note that Mr. Dalle-45 46 Molle might have something topresent, was that still --47 were we still going to do that Joe, and Ray? 48 49 MS. HUTCHINSON-SCARBROUGH: I think he 50

0273 1 -- yeah, he covered it already. 2 3 CHAIRMAN BAKER: Okay. If it's been 4 covered already we won't worry about it. And, finally, 5 for the Park Service we have Justin Young for the Kobuk 6 Valley Subsistence Resource Commission. 7 8 MR. YOUNG: Thank you, Mr. Chair. This 9 is Justin Young with the National Park Service here in 10 Kotzebue. Much of the concerns that the Kobuk Valley 11 SRC wanted to bring up have been discussed in the 12 meeting already so we can be kind of short. 13 14 They were concerned about the beavers 15 and the discoloring of the Salmon River so we are 16 bringing our Park Service and USGS researchers who did 17 a multi-year beaver range expansion project and our --18 and thank you, Marcy Okada, for presenting the project, 19 they are doing that larger scale -- or browning of the 20 rivers. They're going to come up to the Kobuk Valley 21 and Cape Krusenstern SRCs to present those projects and 22 they've already agreed to present here. They'll likely 23 do it remotely but if the RAC is interested we can 24 definitely get them on the agenda. 25 26 MR. ARMSTRONG: Yeah, I think it would 27 be good for the winter meeting. Let's do it. 28 29 MR. YOUNG: And then the last thing 30 would be the voted -- the next SRC meeting for Kobuk 31 Valley is going to be February 23rd and 24th with an 32 alternate of February 28th and March 1st. And that is 33 all my update. If anyone has any other questions about 34 the Kobuk Valley SRC or have concerns they want to be 35 translated back I'm open. 36 37 CHAIRMAN BAKER: Any questions, 38 comments for Justin. 39 40 (No comments) 41 42 CHAIRMAN BAKER: One thing, just 43 touching back from yesterday is for the open seats that 44 we will need to nominate or appoint someone to. If we could just have those for our winter meeting then we 45 46 could review and hopefully get someone to fill whatever 47 vacant seats there are on the SRC. 48 49 MR. YOUNG: Yes, thank you, Mr. Chair. 50

1 We will be doing that. I've already reached out to some of our Staff in the regional office to create that 2 list, and will likely also try to reach out to those 3 4 individuals who are available to see if they're interested so that when we do have that list, if you 5 6 say I want to nominate this person and they've already 7 said yes then we can move faster in filling those 8 seats. 9 10 CHAIRMAN BAKER: Great. If there's no 11 other questions we -- if you have something you can 12 keep going. 13 14 MR. YOUNG: Thank you, Mr. Chair. Τ 15 forgot to mention that as part of the Salmon River -issues of the Salmon River, the Park Service is looking 16 17 to develop a pilot project to look at the fish 18 populations in conjunction with that larger USGS and 19 other Park Service water quality study so we'll be 20 giving you updates on those proposal designs and potentially even if, with your PIN, if a proposal comes 21 22 in we could try to collaborate with them. 23 24 Thank you. 25 26 CHAIRMAN BAKER: Thank you, Justin. 27 Anything else for Mr. Young. 28 29 Yes, Chairman, this is MR. KRAMER: 30 Michael. 31 32 MR. ARMSTRONG: Well -- go ahead Mike. 33 34 CHAIRMAN BAKER: Yeah, go ahead Mike. 35 36 MR. KRAMER: Yeah, you know, I know the 37 Kobuk River had some pretty temperature, you know, differences in there in the spawning rivers, like the 38 39 Hunt River and the Maniilaq and all those other spawning rivers, have you guys thought of putting 40 41 temperature probes, you know, in specific areas in the 42 Kobuk River all the way from Kiana, you know, down in 43 front of Kiana and all the way up, something you could just drive by with a boat and pick up a week's worth of 44 details as you pass by it because, you know, I noticed 45 46 even up on the Noatak that there's some water 47 temperature fluctuations. I've seen things up there 48 that I haven't seen in a long time. You know we see a 49 lot of salmon pooling up down at the mouth of the 50

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1 Noatak for some odd reason and we see them up by the Aggi, you know, a few weeks later and then after that 2 they're finally moseying up the river. Have you guys 3 4 ever decided, or would want to try to do something like 5 so you could see what kind of temperature that 6 fluctuations we are having on both rivers? 7 8 Thank you, Mr. Chair. MR. YOUNG: 9 10 MR. KRAMER: The spawning rivers, Eli, 11 Kelly. 12 13 MR. YOUNG: Thank you, Mr. Kramer. 14 There are ongoing long-term lakes Through the Chair. 15 and stream studies that they do water quality and I believe that there are sometimes temperature gauges 16 that have been put in. We can reach out to the same 17 researcher who did the beaver project to see about that 18 19 data for the next RAC meeting. But I know that we are 20 looking in that discoloring stream and potentially with 21 fish study related to it, we are going to be looking at 22 censors that could be useful for getting temperature 23 gages and things like that. So we are looking into it 24 and it is something of interest for the Park Service. 25 26 MR. KRAMER: Okay, thank you. 27 28 MR. ARMSTRONG: Real quick. I just 29 wanted to ask if there has been studies on methane 30 release? I know it's been a topic about global warming 31 and have you guys -- if so, have you guys been using 32 that information? 33 34 MR. YOUNG: Thank you, Mr. Armstrong. 35 Through the Chair. Yes, we are starting up a couple different projects, also with the same researcher who's 36 37 doing the water quality and the beaver research, we're looking at two different projects to look at methane 38 39 One through a permafrost study where we're release. 40 trying to understand the changes of depths and we're 41 looking into ways that we can try to study that in 42 frozen lakes. And I am actually having a meeting with 43 the researcher about his interest in methane release 44 tomorrow and so we can also give you an update at the next meeting on where we're going with it and where 45 46 we're designing our research. But I think it's usually 47 around lakes to be able to monitor its release and 48 then see how that translates to everything else. 49 50

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0276 1 MR. ARMSTRONG: All right, thank you. 2 That sounds good. 3 4 CHAIRMAN BAKER: Any other questions 5 for Justin. 6 7 Wilbur. 8 Yeah, 9 MR. HOWARTH: Mr. Chair. 10 Speaking of methane, in your guys' studies that you'll 11 be doing, is it possible you could do it in the winter 12 when they're like -- like just about now when it's 13 freezing you sure can see those right in the -- I would 14 say the -- maybe the Riley Channel has the most methane 15 that's coming out of the river. 16 17 Thank you. 18 19 MR. YOUNG: Thank you, Mr. Howarth. Through the Chair. Yes, that's actually one of the reasons why I was going to be reaching out to the 20 21 22 researcher was to find out his methodology and what 23 he's planning to do and recommending that this is the right time of year to do what he wants to look at and how he wants to study it. My tests that we're going to 24 25 26 be trying to do does need frozen lakes. So we're 27 likely going to try and look this March and see if we can even test for it which then gives us other data 28 29 points. So, yes, thank you. 30 31 MR. KRAMER: Mr. Chairman, this is 32 Michael. 33 34 CHAIRMAN BAKER: Yes, go ahead, Mike. 35 36 MR. KRAMER: Yeah, speaking of methane, 37 I know that quite a few years ago me and my brother 38 were up on the Noatak Flats and we were driving up that way up towards Onion and towards the Kelly, we noticed 39 40 several lakes had these like holes, you know, were like 41 warm water, and there were nothing but bubbles coming 42 up. And back then and still to this day I'm still 43 curious about it and one thing I notice when I go to 44 the Earthquake Center that the Noatak Flats on a daily basis has small quakes, you know, up here on the Noatak 45 46 Flats, I mean northern -- you know, the Serpentine Hot Springs and some of these other places, the Noatak 47 48 Flats has a lot of small earthquakes and that's the one 49 thing I noticed is a lot of those lakes up there on the 50

0277 1 Noatak Flats have a lot of methane in them. And I'm kind of wondering maybe these, you know, earthquakes 2 3 are shaking a lot of that methane and something up and 4 pools opening in the middle of frozen lakes in the 5 middle of dead of winter. 6 7 Thank you. 8 9 MR. YOUNG: Thank you, Mr. Kramer. 10 Through the Chair. Sadly I'm not a geologist so I 11 don't have a lot of experience with this but it is 12 possible that could be due to methane release. That is 13 something I can very much reach out to our Staff 14 members in the Regional Office who are far more 15 experienced in this and give you an update at the next 16 RAC meeting. 17 18 MR. KRAMER: Okay, thank you. 19 20 CHAIRMAN BAKER: Anything else for 21 Justin. 22 23 (No comments) 24 25 CHAIRMAN BAKER: Hearing none, thank 26 you, Justin and everyone from the Park Service. We 27 will go ahead and move on to the next agency which is the Bureau of Land Management. Is Bruce Seppi on the 28 29 line. 30 31 MR. SPARKS: Mr. Chair. This is Tom 32 Sparks, I can give the report if you'd like. Over. 33 34 CHAIRMAN BAKER: Yes, please. 35 36 MR. SPARKS: I just want to say that 37 our report is on Page 51 of your packet. I don't want 38 to repeat that. I know it's been a long day for you 39 guys. 40 41 Just wanted to inform the Council that 42 there is an Ambler Road supplemental review that is 43 being undertaken by the Bureau of Land Management out 44 of our Fairbanks Office. They're looking for public comments that are due before November 4th so it's very 45 46 timely here. The public comments can be sent in by 47 email or by mail. The email address is 48 blm ak akso amblerroad comments@blm.gov and that can be 49 found at our BLM website that's www.blm.gov and that's 50

0278 1 under our press releases. 2 3 I think the only other thing I'd like 4 to say is we have some Staff changes at the State 5 level. We have a new State Director, his name is Steve We have a new BLM Director on the National 6 Cohn. 7 level, TracyStoneManning. And then at our Field Office Level we are anticipating filling the field manager 8 9 position, I'm the associate manager currently, and the 10 field manager hopefully will be approved in the next 11 few months. We'll keep the Council informed on that. 12 13 And we also are engaged in a project 14 looking at the Public Land Orders, we're going to be 15 doing a very large EIS in the next couple of years so That's the listing of the D1 16 stay tuned for that. 17 withdrawals in some of our land use plans. 18 19 Other than that I think I'll just leave 20 it open for questions that you may have or any member 21 of the Council. 22 23 Thank you. 24 25 CHAIRMAN BAKER: Any questions for Tom. 26 27 (No comments) 28 29 CHAIRMAN BAKER: Mike or Vern, do you 30 have anything. 31 32 MR. KRAMER: No, I don't have anything, 33 thank you. 34 35 CHAIRMAN BAKER: Thank you for that 36 Mike. So if there's no comments or questions I'd like to thank you, Tom, for giving us that brief update. If 37 we develop any questions we'll be sure to reach out. 38 39 With that we can move on to the Alaska Department of 40 Fish and Game, Division of Subsistence, Review of 41 Arctic Area Subsistence Division Projects. And the 42 floor is yours, Morgan. 43 44 45 MS. URQUIA: Thank you, Mr. Chair and 46 Council. For the record my name is Morgan Urquia and 47 I'm a Subsistence Resource Specialist with the 48 Department of Fish and Game based in Fairbanks. And 49 ours begin on Page 55 of your packets. I work in the 50

0279 Arctic region with my colleague Helen Cold who's 1 joining us by phone right now. She is the Arctic 2 3 Region Research Director. 4 5 I talked yesterday about our work with 6 the Fisheries Resource Monitoring Program and I want to 7 take a few more minutes and introduce you to the other research projects we have going on in the Northwest 8 9 Arctic. So Page 56 I already spoke about but happy to 10 take questions on at any time. 11 12 On Page 57 you'll find information on 13 this ongoing project to document indigenous knowledge 14 of beaver ecology in Arctic communities. So this is in 15 partnership with Ken Tape's project. I confirmed with And it's funded by the National 16 my colleague Helen. 17 Science Foundation in partnership with University of 18 Alaska-Fairbanks. And as you heard this is focused in 19 the Northwest Arctic. We plan to work directly with 20 the Native Village of Shungnak, Kotzebue and Noatak for 21 ethnographic interviews and mapping as well as 22 observation. So Ken Tape's work is combining the 23 remote censusing and landscape impact surveys of that 24 region and we'll be helping with that work as well as 25 the interviewing, mapping and observation pieces to 26 incorporate indigenous knowledge into the work. 27 28 So this project began in October 2021 29 but the exploratory field work happened this summer. 30 Also this year we got -- we were getting approval from 31 IRAs to conduct the project. It includes multiple 32 years of interviews and will go through 2026. And while documenting traditional knowledge is a goal of 33 this project, so is sharing the monitoring information 34 35 that folks have talked about so that includes that remote censusing, that includes the landscape impact 36 37 surveys and so while we're in communities conducting 38 interviews we'll also be going out with folks with 39 trappers and hunters as well as hosting community meetings to share that information that Ken Tape's work 40 41 is collecting. We also want to create data management 42 plans with all three of those communities so that how 43 this -- how the interviews and how the remote censusing 44 information is stored in the communities is determined 45 by the IRAs and the tribes. 46 47 So Helen Cold, the Regional Director --48 the Research Director I mentioned earlier is leading 49 this project so I want to share her email, which is, 50

1 helen.cold -- H-E-L-E-N.C-O-L-D@alaska.gov, and for more questions on this project I encourage you to email 2 3 her. 4 5 We also wanted to let you know about a 6 conference happening in Canada in November that's 7 related to this project and related to beavers impact. There's a relatively new international group 8 of scientists who are hosting this annual meeting to keep 9 10 updated on beaver spread and activity internationally 11 across the Arctic. So this year's meeting will be held 12 in November in Yellowknife, Canada and we'll be sending 13 someone from our division. The theme is land 14 management so they'll be hearing concerns on land 15 management related to beavers and we welcome you to 16 call into this conference. It's November 21st to 23rd 17 and we can share more information specifically on 18 participating with Lisa or please do email Helen. We 19 hope that the 2023 meeting for this group will be held 20 in Fairbanks and if that's the case we'll talk more 21 about inviting tribal members and making sure that folks from the Northwest Arctic are present at that 22 23 meeting. 24 25 Our next project is in partnership with 26 National Park Service. This is the Bering the 27 LandBridge Ethnographic Overview and Assessment 28 includes a comprehensive literature review, reviewing 29 research that's already been done in the area as well 30 as community consultation and interviews and those we 31 will hopefully conduct in winter 2023. Deering and 32 Buckland are the two communities in the Northwest 33 Arctic that are included in this project and we hope to 34 consult and visit and we'll work together with those 35 tribal councils, the Park Service and the ADF&G Staff 36 to coordinate those visits. So we hope that the 37 community consultations can identify information gaps 38 in the literature that exists currently and we'll be 39 completing a report for that in fall 2024 and that will 40 be shared with the communities. 41 42 That is a Bering LandBridge project on 43 Page 59. 44 45 You can find more information about the Western Arctic Caribou Herd assessment project that I 46 47 think we -- I believe we shared with the Council at 48 previous meetings but it is continuing, it's in its 49 fourth year. We started the project in 2019 to collect 50

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1 harvest data on large land mammal harvest in eight different villages and Covid forced us to postpone some 2 3 of the surveys but we've restructured them, we had a 4 lot of help from our year two communities, which we 5 really appreciate, and were able to conduct surveys 6 remotely. We've been back on the ground this year and 7 we'll be in 2023 as well. And this year, 2022, we were able to make it to Shungnak, White Mountain, Selawik 8 9 and Golovin and we're currently analyzing that data. 10 It was the second year of the survey so we have really 11 good comparison of year one and year three to see any changes in caribou harvest in those communities. 12 And 13 in this year, the coming year, 2023, we plan to visit 14 Deering, Kobuk, Noatak and Shishmaref for their second 15 round of surveys to have that comparison as well. This is the final year of data collection for the project 16 17 and we'll be writing the report and presenting data 18 reviews to communities until then and we'll be happy to 19 share more with the Council in that time period. 20

21 This is one I heard earlier about, you 22 know, passing on information to communities about who 23 to contact regarding sick caribou or any concerns folks 24 have. This is a really great opportunity, we're on the 25 ground in all of those villages during this time and so 26 we do our best to communicate about permits, getting 27 from folks, but after pictures hearing the 28 conversations earlier we'll make sure to be sharing 29 Alex's and the Fish and Game here in Kotzebue's contact 30 information and any other resources we can share with 31 folks while we're in the villages.

33 On Page 60 we have the Kiana Community Subsistence Harvest Assessment. That's a comprehensive 34 35 survey which we're conducting also in harvest partnership with the National Park Service. This is an 36 37 update, the baseline study completed in 2006, we try to 38 be doing -- we're trying to do these comprehensive 39 surveys in all communities on a semi-regular basis so 40 that we can have -- we can compare data. And a team of 41 researchers, including myself and Hannah Atkinson from 42 National Park Service visited Kiana in March of 2022 to 43 conduct those surveys and complete interviews. We plan 44 to revisit Kiana this coming winter to facilitate a few more interviews, we hope, and conduct a data review 45 46 with community members. 47

48 And the last project on Page 61, I went 49 into yesterday with the Fisheries Resource Monitoring 50

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0282 1 Program, the one that is the salmon project that will start in July of next year 2023. 2 3 4 So if you all have any questions on our 5 projects I'm happy to answer them now. 6 7 CHAIRMAN BAKER: Thank you, Morgan. 8 Any questions from members of the RAC. 9 10 (No comments) 11 12 CHAIRMAN BAKER: Just one that I have, 13 Morgan, for the Western Arctic Caribou Herd harvest 14 assessment, when would we be able to expect feedback 15 and reports for this project since it's in the wrapping 16 up stages? 17 18 MS. URQUIA: We'll be conducting those 19 last surveys this year which means our data review with 20 those communities would be sometime after fall 2023, so 21 with that, either the fall 2023 meeting or winter 2024, 22 certainly that would be ready. 23 24 CHAIRMAN BAKER: Got it, thank you. 25 Any other questions, comments for Morgan on any of 26 these projects. 27 28 MR. ARMSTRONG: Just for information, 29 the one for traditional ecological knowledge, why was 30 that postponed until 7/23? 31 32 MS. URQUIA: That was really due to 33 Covid, because of a backlog we had with Covid projects 34 and being able to have time to conduct enough 35 interviews to complete that. 36 37 MR. ARMSTRONG: Thank you. 38 39 MS. URQUIA: Yeah, thank you. 40 41 CHAIRMAN BAKER: Vern or Mike, any 42 questions on these projects. 43 44 MR. KRAMER: No. Thank you for your 45 information. 46 47 CHAIRMAN BAKER: Well, thank you and 48 we'll be sure to look out for reports on all these different projects. If we have any questions between 49 50

0283 1 now and the winter meeting we'll be sure to pass them on. So with that we'll go ahead and move on to the 2 3 Office of Subsistence Management report. And, Tom --4 from one Tom to another, the floor is yours. 5 6 MR. KRON: Mr. Chair. Members of the 7 Council. On behalf of OSM, I wanted to thank all Council members for your exceptional work on behalf of 8 9 your communities and the user groups during these 10 trying times. We value your expertise and contribution 11 of your knowledge and experience to the regulatory 12 process. I ask that all seated behind me, please stand 13 with me and join in recognizing the Northwest Arctic 14 Council with a round of applause. 15 16 (Applause) 17 18 We are holding all 10 2022 MR. KRON: 19 Regional Advisory Council meetings in person this fall 20 and have been working over recent months to arrange for 21 travel, lodging, meeting places for all Councils. OSM 22 Staff are happy that we can finally see you all face to 23 We thank you again for bearing with us over the face. past two and a half years during the pandemic and all 24 25 of the teleconferences. 26 27 Federal Subsistence Management The 28 Program recognizes that in-person Council meetings are 29 preferable. The Council meetings must follow Federal 30 government guidelines. We are hoping that Covid-19 31 levels are low enough in each of the communities where 32 Council meetings are planned at the time of the meeting 33 so that we will be able to hold the meetings and thus 34 far we have. We are working with each of the 35 Councils on specific requirements in their regions to 36 conduct in-person meetings safely. 37 38 OSM is pleased to welcome newly hired 39 Federal subsistence Council Coordinators. 40 41 Lisa Hutchinson-Scarbrough and Jessica 42 Gill, both who are at this meeting, and you've had a 43 Both of them have a wealth of chance to meet. 44 knowledge and experience in working with rural users in 45 communities as well as Alaska subsistence issues. 46 47 Eva Patton transferred to the National 48 Park Service. Karie Crow returned to OSM as budget 49 analyst. Bernard Shavings joined us as an 50

0284 1 administrative support assistant and Michelle Andrews joined us as OSM's executive secretary. 2 3 4 The OSM Team continues to work to 5 rebuild our capacity. 6 7 Over the past two and a half years 8 we've been reminding Council members about the change in requirements for IDs at airports. 9 Beginning May 10 3rd, 2023, next spring, every air traveler will need to 11 present a Real ID compliant driver's license or other 12 acceptable form of identification such as a passport to 13 fly within the United States. This is applicable, even 14 when you fly on small Bush carriers. Please note that 15 all members will need to make sure that they have 16 RealID compliant travel information for the fall of 17 2023, a year from now. 18 19 As you all know we didn't have any fish 20 The Federal Subsistence proposals at this meeting. 21 Board will be addressing fish proposals this winter and we do have a number of fish proposals from the other 10 22 23 [sic] regions across the state. Wildlife proposals will be accepted this winter during your winter meeting 24 25 and I've heard discussion during the meeting about 26 possibly presenting wildlife proposals so the time to 27 plan for that would be at your winter 2023 meeting, 28 your next meeting here coming up. Wildlife proposals, 29 again, normally come in during the winter meetings and, 30 again, the next window will be -- there's a 45 day 31 period during the February/March timeframe and that 32 will be when you should be thinking about submitting 33 the wildlife proposals you'vediscussed at this meeting. 34 35 I've got about a page of lawsuit 36 information, which I'm not going to go through unless 37 But it basically, these are Federal you ask me to. 38 Subsistence Board related lawsuit information from 39 Southeast, from Unit 13 around Glennallen, and from the 40 Kuskokwim and, again, since we don't have anything 41 going on in this region I'm not going to touch on that 42 unless you ask me to. 43 44 (No comments) 45 46 MR. KRON: Thank you, Mr. Chair. I'd 47 be happy to answer any questions. 48 49 CHAIRMAN BAKER: Thank you, Tom. Any 50

0285 1 questions or comments from the RAC. 2 3 MR. HOWARTH: Mr. Chair, Wilbur. Thank 4 you, Tom. And the rest of you that stood up and 5 applaud us, that was real awesome. Thank you all for 6 being here. 7 8 Thank you. 9 10 CHAIRMAN BAKER: Thank you, Wilbur. 11 Any other questions or comments for Tom and/or OSM. 12 13 (No comments) 14 15 CHAIRMAN BAKER: Hearing none, thank And it looks like we've wrapped up all the 16 you, Tom. 17 agency reports. None of this would be even possible 18 without the folks filling the chairs in the room so 19 thank you for the applause but there's not enough of us 20 to make a big round of applause for all of you so you 21 can pat yourselves on the back. 22 23 (Laughter) 24 25 CHAIRMAN BAKER: I believe there was 26 some housekeeping that we had to bring up. I don't 27 know if that was Hannah or Lisa that was going to bring 28 that up. And it looks like, Hannah, the floor is 29 yours. 30 31 MS. VOORHEES: Thank you, Mr. Chair and 32 members of the Council. There's been some discussion at this meeting about the need to send someone from the 33 34 Council to attend and represent the Council at the 35 Western Arctic Caribou Herd working group meeting, which is being held in December in Anchorage, December 36 37 14th and 15th, I believe. And I just wanted to let the Council know that if you do wish to make a request to 38 39 Office of Subsistence Management to fund travel of a 40 Council member to the meeting this year, that you may 41 wish to do that on the record now and it would also 42 make sense to nominate a person you'd like to attend at 43 this time. 44 45 Thank you. 46 47 CHAIRMAN BAKER: Thank you, Hannah. I 48 know we talked about it a good bit yesterday of sending 49 someone potentially to the Western Arctic Caribou Herd 50

0286 1 working group meeting next month, do we feel that's appropriate, would we like to make that motion to ask 2 3 OSM to set that up and nominate someone. What is the 4 wish of the RAC. 5 6 MR. SHIEDT: I think we should nominate 7 someone. But to be more recognizable I think we should -- if it's possible send more than one out of the Board 8 9 here. 10 11 (Teleconference interference 12 participants not muted) 13 14 MR. SHIEDT: That way you could be 15 together and you could, you know, spread your ears out 16 and see what's going on. 17 18 CHAIRMAN BAKER: Thank you, Attamuk. 19 So the suggestion was made but there wasn't a motion, 20 what is the wish of the RAC. 21 22 MR. ARMSTRONG: I think we should 23 Do I need to make a motion to nominate nominate. 24 someone? 25 26 MS. HUTCHINSON-SCARBROUGH: This is an 27 action item, correct, or it would be? 28 29 MS. VOORHEES: I think the most that's 30 required is to just make the request on the record as a 31 Council, I don't -- it's up to the Council how formal 32 you'd like to make this. I also wanted to respond to Council Member Attamuk's comment and say that the 33 34 Council can certainly nominate more than one person, 35 whether that request can be funded by OSM is out of my 36 hands but this certainly is the first step and then 37 we'll put this request forward to our office. 38 39 Thank you. 40 41 CHAIRMAN BAKER: Thank you, Hannah. So 42 just to recap, I think it would be appropriate. I think 43 on behalf of the RAC I'd like to recommend that we do 44 request that at least one of us get to go down to 45 attend the meeting, do we have any nominees. 46 47 MR. ARMSTRONG: I nominate Attamuk 48 Shiedt. 49 50

0287 1 MR. HOWARTH: And I'll second that. 2 3 CHAIRMAN BAKER: So a nomination by 4 Elmer and seconded by Wilbur to send Attamuk, Attamuk, 5 do you accept? 6 7 MR. SHIEDT: Yes, but still I would 8 like two people to attend if possible that way we could 9 be together. 10 11 CHAIRMAN BAKER: So for the record 12 there's a motion on the floor and it was seconded for 13 the first nominee, all those in favor of Attamuk being 14 the for sure person to attend the working group 15 meeting, please say aye. 16 17 IN UNISON: Aye. 18 19 CHAIRMAN BAKER: And those opposed same 20 sign please. 21 22 (No opposing votes) 23 24 CHAIRMAN BAKER: Are there any 25 nominations for a second person. 26 27 MR. HOWARTH: Mr. Chair. 28 29 CHAIRMAN BAKER: Yes, Wilbur. 30 31 MR. HOWARTH: I would like to nominate 32 Michael Kramer for the second person. 33 34 CHAIRMAN BAKER: So a nomination for 35 Michael Kramer, do we have a second. 36 37 MR. ARMSTRONG: Second. 38 39 CHAIRMAN BAKER: So nominated by Wilbur, seconded by Elmer, all those in favor -- well, 40 41 Mike, do you accept the nomination to be the potential 42 second person to go to the working group meeting? 43 44 MR. KRAMER: Yeah, I just have to 45 figure it out with my schedule plus I'm a single parent 46 of a two year old boy so I just have to make sure -- if 47 it's going to be in Anchorage my mom would be able to 48 watch him, I just hope it lands on my days off though. 49 Okay. 50

0288 1 CHAIRMAN BAKER: Thank you for that 2 Mike. 3 4 MR. KRAMER: I do. 5 6 CHAIRMAN BAKER: So..... 7 8 They could give you the MR. SHIEDT: 9 dates Michael. 10 11 CHAIRMAN BAKER: So with that, Mike, if 12 you accept we'll just work it out and you can let myself and Staff know if you're not able to attend or 13 14 how that would work out. All those in favor of Mike 15 being the second person to attend, please say aye. 16 17 IN UNISON: Aye. 18 19 CHAIRMAN BAKER: So with that, the two 20 people that we would like to officially request OSM to 21 fund would be Mr. Attamuk Shiedt and Mr. Michael Kramer 22 and so that is our request to OSM, do we have any other 23 questions or discussion from members of the RAC on that 24 one. 25 26 (No comments) 27 28 CHAIRMAN BAKER: Is that official, 29 Hannah? 30 31 MS. VOORHEES: That sounds official. 32 And we will put this request through right Taikuu. 33 away as that meeting's coming up and it's great news if 34 one of you will be able to attend, thank you, or two, 35 hopefully. 36 37 CHAIRMAN BAKER: Thank you. And just to make it clear we are requesting for funding for 38 39 If one of them is not able to then we can those two. 40 hash that out at a later date. So with that out of the 41 way we're move on to future meeting dates. 42 43 MR. KRAMER: Yeah, I just..... 44 45 CHAIRMAN BAKER: Go ahead, Mike. 46 47 MR. KRAMER: Yeah, I just have to let 48 -- my Sun -- my days off are Sunday, Monday, those two 49 days. You know when you work for Alaska Airlines 50

1 you're pretty much trapped in stone until springtime. So I hope it lands within those days I'd like to attend 2 3 more meetings and stuff like that, you know, because I 4 go down a lot for medical so, you know, hopefully it'll land on a good time, like a Monday or a Tuesday or 5 something where I could possibly find a guy to cover me 6 7 for a Tuesday and come back Wednesday morning or But, okay, yeah, just give me -- keep in 8 whatever. 9 touch with me and let me know the days and I'll be able 10 to let you know if I could head down or what I could 11 scoop together and make it down there. 12 13 CHAIRMAN BAKER: Thank you, Mike. Ιt 14 looks like someone may have that schedule. 15 16 MS. VOORHEES: Thank you, Mr. Chair. I 17 missed a little bit of that discussion but my 18 understanding is we're trying to figure out if Council 19 Member Kramer can attend and it -- so March -- I mean 20 December 13th -- or 14th and 15th is the dates, so does 21 anyone know what days those are. 22 23 MS. SWEENY: Wednesday and Thursday. 24 25 MS. VOORHEES: Okay, thank you, 26 Wednesday and Thursday. So if Council Brittany. 27 Member Kramer cannot attend I would recommend that you 28 select an alternative. 29 30 CHAIRMAN BAKER: Thank you, Hannah. So 31 if you didn't catch that, Mike, the working group 32 meeting is on a Wednesday and Thursday and given what 33 you just said about your work schedule, do you feel 34 that you could get the time off for that or should we 35 pick an alternative person now in case you're not able 36 to follow up with that. 37 38 MR. KRAMER: It would be good to get an 39 alternative and I'll see what I could round up, 40 possibly have to do some trades or something. 41 42 CHAIRMAN BAKER: All right, thank you 43 for that, Mike. So with that said do we have any nominations for an alternate person to attend the 44 45 meeting in the event that Mike can't make it. 46 47 MR. KRAMER: I nominate Elmer. 48 49 CHAIRMAN BAKER: So Mike has nominated 50

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0290 1 Elmer. 2 3 MS. HUTCHINSON-SCARBROUGH: Elmer's 4 going to be (indiscernible - no microphone) 5 6 MR. HOWARTH: I'll second that, Mr. 7 Chair. 8 9 MR. ARMSTRONG: Yeah, I might be 10 attending through another sponsor but if not -- are you 11 going to be attending Thomas? 12 13 CHAIRMAN BAKER: No. 14 15 MR. ARMSTRONG: All right, I nominate 16 Thomas. 17 18 MR. SHIEDT: I'll second it. 19 20 (Laughter) 21 22 CHAIRMAN BAKER: So with that, does 23 that mean you decline your nomination Elmer? 24 25 MR. ARMSTRONG: Yeah, I decline. I am 26 not too sure I'll be able to make it -- but -- through 27 another sponsor I may go or not but it's kind of up in the air right now. 28 29 30 CHAIRMAN BAKER: Thank you, Elmer. So 31 I have been nominated by Elmer and seconded by Attamuk, 32 I accept the nomination, all those in favor of myself 33 being the alternate in the event that Mike can't make 34 it please say aye. 35 36 IN UNISON: Aye. 37 38 MR. SHIEDT: What's the dates again? 39 40 CHAIRMAN BAKER: December 14 and 15. 41 All those opposed same sign. 42 43 (No opposing votes) 44 45 CHAIRMAN BAKER: So it looks like I'm 46 So with that now an alternate to go to the meeting. 47 out of the way we can move on to our future meeting 48 dates which, if you look under Supplemental Tab 8, in 49 the book with the agenda for the cover, we need to 50

0291 1 confirm our winter 2023 meeting date and location. So right now we are scheduled for March 6th and 7th with 2 no location decided. Where would we like the location 3 4 of our winter meeting to be? 5 6 Yes, Lisa. 7 8 MS. HUTCHINSON-SCARBROUGH: Yeah, Mr. 9 Chair and Council members. As these other RAC meetings 10 have been meeting and we're towards the tail end, 11 there's some -- some of these areas have filled in and 12 you don't have all the updates so we can provide that 13 for you. But currently your -- for the winter meeting 14 you're scheduled -- last time you selected March 6th 15 and 7th, that could be changed -- one of the things that Brittany just recommended was if the -- those pre-16 17 meetings are nice, I think maybe -- did you all enjoy 18 having the pre-meeting that we sort of -- or our little 19 meet and greet, and if we keep it on the 6th, we would 20 be having it, again, on a Sunday and I don't know if 21 that was inconvenient for anybody, so you might just 22 consider, if that still works to move it but I -- I 23 know that also our other Council members have airline 24 schedules and work that they have to -- so I hope that 25 we could have some input from them. 26 27 Thank you. 28 29 MR. ARMSTRONG: Yeah, I think it'll be 30 good for the meet and greet because we were doing the meet and greet, too, telephonically, so I don't see 31 32 anything wrong with doing a meet and greet again. 33 34 MS. HUTCHINSON-SCARBROUGH: Was it 35 convenient having it on a Sunday or does that matter? 36 37 CHAIRMAN BAKER: This is Thomas. Just given that we would all be here sometime on Sunday --38 39 wherever we have the meeting, we'd all be there on that 40 Sunday to be able to start Monday morning, I think it 41 would be fine to have it Sunday evening. 42 43 MS. HUTCHINSON-SCARBROUGH: And we also 44 need to -- you also need to select a location too so. 45 46 CHAIRMAN BAKER: I was going to say 47 time, same place, but maybe not. 48 49 (Laughter) 50

0292 MS. HUTCHINSON-SCARBROUGH: Yeah, there 1 2 has been discussion about having these meetings in other villages, in other communities, so that's an 3 4 option. 5 6 CHAIRMAN BAKER: What is the wish of 7 the Council, where would we like our winter meeting to 8 be held? 9 10 MR. HOWARTH: Mr. Chair. Here would be 11 nice. 12 13 MR. CLEVELAND: Mr. Chair. 14 15 MR. HOWARTH: If you all can come back. 16 17 (Laughter) 18 19 CHAIRMAN BAKER: Thank you for that, 20 Wilbur. Was there someone on the phone? 21 22 MR. CLEVELAND: Yeah, this is Vern, Mr. 23 Chair. 24 25 CHAIRMAN BAKER: Yes, go ahead, Vern. 26 27 MR. CLEVELAND: Yeah, when is the 28 meeting, in March? 29 30 CHAIRMAN BAKER: The meeting dates for 31 March.... 32 33 MR. CLEVELAND: When's the meeting? 34 35 CHAIRMAN BAKER: ....are March 6 and 36 7, that's a Monday/Tuesday. 37 38 MR. CLEVELAND: I'd like to make a 39 motion to have a meeting March 6 and 7 in Kotzebue. 40 41 CHAIRMAN BAKER: So we have a motion 42 for.... 43 44 MR. CLEVELAND: Thank you. 45 46 MR. KRAMER: Second. 47 48 CHAIRMAN BAKER: .....winter meeting 49 March 6th and 7th in Kotzebue by Vern, seconded by 50

0293 1 Mike. All those in favor please say aye. 2 3 IN UNISON: Aye. 4 5 CHAIRMAN BAKER: And those opposed same 6 sign. 7 8 (No opposing votes) 9 10 CHAIRMAN BAKER: So with that we will 11 go ahead and schedule for March 6 and 7 in Kotzebue for the winter meeting. And then for the fall meeting we 12 13 need to select a date and location. Were there some 14 updates to the schedule that you penciled in, Lisa? 15 16 MS. HUTCHINSON-SCARBROUGH: This is 17 actually a question for OSM, can we schedule -- can we double them up with other RAC -- Jessica, would you 18 19 mind answering this? 20 21 MS. GILL: Sure. Thank you, Mr. Chair. 22 For the record my name is Jessica Gill, Council 23 Coordinator with OSM. So we can have up to two meetings per week. And I have, in your supplemental books, there should be an updated version of the 24 25 26 calendar that includes the YK Delta meeting, which is 27 October 10th, 11th and 12th and then the Southeast RAC 28 meeting, which is October 24, 25th, 26th. 29 30 CHAIRMAN BAKER: Just to make it a 31 little bit easier on Staff so that we don't get any 32 burnout I'd like to propose that we look at.... 33 34 (Teleconference interference 35 participants not muted) 36 37 CHAIRMAN BAKER: .....the week of 38 October 16th or October 30th. Do we have any 39 preferences. 40 41 42 (No comments) 43 44 CHAIRMAN BAKER: I think having it towards the end of the month is beneficial for us as a 45 46 Council since at that point everyone else would have had their meetings so if there were any proposals going 47 48 on across the state or any special actions, things that 49 other regions are discussing, those meetings would be 50

0294 1 wrapped up and we'd be able to work with the knowledge that they have made decisions already so that we won't 2 be in the position where we've been in the past where 3 4 other Councils haven't met yet and we aren't sure how to support them if they, themselves, haven't made a 5 decision on their actions. So the week of the 16th of 6 7 October or 30th. 8 9 MR. ARMSTRONG: I know you gave your 10 suggestions, how about 2 and 3. 11 12 CHAIRMAN BAKER: October 2 and 3? 13 14 MR. ARMSTRONG: Yeah. 15 16 CHAIRMAN BAKER: There's meetings that 17 week. That book isn't updated, I don't think. 18 19 MR. ARMSTRONG: Okay, sorry, I just saw 20 that. 21 22 MS. HUTCHINSON-SCARBROUGH: Apparently 23 AFN is that week, October 16th, that week, just for 24 your information. 25 26 CHAIRMAN BAKER: Well, we can't overlap 27 with AFN. 28 29 MS. HUTCHINSON-SCARBROUGH: No, we 30 don't want to do that. 31 32 CHAIRMAN BAKER: So in the copy that I 33 have, the week of September 25th is open, September 34 11th, and October 30th. 35 36 MR. ARMSTRONG: So your suggestion was 37 30 and 31? 38 39 CHAIRMAN BAKER: Just found out we can't do 30 and 31 because there's..... 40 41 42 MS. HUTCHINSON-SCARBROUGH: Yeah, we 43 already.... 44 45 CHAIRMAN BAKER: ....other.... 46 47 MS. HUTCHINSON-SCARBROUGH: ....have 48 two other meetings that week so we -- I guess we -- in 49 Utgiagvik and then in Nome. 50

0295 1 CHAIRMAN BAKER: So can you read out what dates are open, what beginning of the weeks are 2 3 open. 4 5 MS. HUTCHINSON-SCARBROUGH: I said AFN 6 was October 16th. 7 8 MR. KRAMER: Why don't we just have 9 a.... 10 11 MS. HUTCHINSON-SCARBROUGH: The 23rd 12 would be.... 13 14 MR. KRAMER: .....joint meeting with 15 North Slope. 16 17 MS. HUTCHINSON-SCARBROUGH: North Slope 18 is November 1st and 2nd. And then Seward Peninsula is 19 also November 1st and 2nd. AFN is October 16th I just 20 said, right, so we could do October 23rd, that week. 21 22 CHAIRMAN BAKER: One second everyone, 23 Mr. Young with the Park Service has something he'd like 24 to share. 25 26 MR. YOUNG: I found this as an issue. 27 Justin Young with Park Service here in Kotzebue. With 28 our SRC meetings, yes, scheduling around AFN, 29 especially right afterwards is not favorable, but AFN 30 is actually the 19th, 20th and 21st, so I could 31 foresee, especially if the meeting happened the 16th and 17th, that still gives people a day to travel down 32 33 or if, let's say, you held it in Anchorage, they 34 wouldn't even have to travel down. 35 36 Thank you. 37 38 MR. SHIEDT: What'd you say AFN is the 39 19th through the 21? 40 41 MR. YOUNG: Yes, Attamuk. 42 43 CHAIRMAN BAKER: October 16 and 17 are 44 What do we think of those dates tentatively. open. Because we will be able to confirm this at the winter 45 46 meeting in a few months, we just need to get something 47 on the schedule now. 48 49 MR. ARMSTRONG: All right, 16 and 17 50

0296 1 will work with the meet and greet. 2 3 CHAIRMAN BAKER: And for a location, 4 would we like to leave that for the winter meeting. 5 6 MR. ARMSTRONG: Yeah, we could leave 7 that for the winter meeting. 8 9 CHAIRMAN BAKER: So if there are no 10 objections we'll go ahead and plan for the fall 2023 11 RAC meeting October 16th and 17th, location to be 12 decided. 13 14 MR. CLEVELAND: Location, Kotzebue. 15 Motion made by Vern to have the meeting in Kotzebue 16 with those dates. 17 18 MR. SHIEDT: Second. 19 20 CHAIRMAN BAKER: So motion made for 21 October 16th and 17th in Kotzebue by Vern, seconded by 22 Attamuk, all those in favor please say aye. 23 24 IN UNISON: Aye. 25 26 CHAIRMAN BAKER: And those opposed same 27 sign. 28 29 (No opposing votes) 30 31 CHAIRMAN BAKER: So with that we'll 32 plan for Kotzebue October 16 and 17, 2023. Do you need 33 anything else for that Lisa? 34 35 MS. HUTCHINSON-SCARBROUGH: No, Mr. 36 Chair, I think that's all, thank you. 37 38 CHAIRMAN BAKER: Thank you. So at this 39 time I'd like to move us into closing comments and we'll start with the folks on the phone. 40 So, Vern 41 Cleveland, do you have any closing comments. 42 43 MR. CLEVELAND: Yes, I do. Closing 44 comments. There was good information in the meeting. I hope to see you guys at the Western Arctic Caribou 45 46 Herd working group meeting next month in December in 47 Anchorage. And hopefully they get the message that we 48 are trying to get our caribou to -- since we got the 49 low count to get our communities to get a count of how 50

1 many caribou each village gets, that would help Staff a lot. And you don't have to say your name or anything, 2 3 just put a count into -- or they could set it up with the IRA or the city for our region, a count on caribou. 4 5 I know I haven't gotten any caribou in three years, that's -- so there should be more, I used to get about 6 7 20 caribou, but in three years I just got three caribou so that's cut down a lot. But it's got to be for our 8 whole region, not the whole region, the whole state, if 9 they got any caribou they should report it because we 10 11 are at a low, low count on caribou. It's alarming for 12 our area but with our management and everything else I 13 hope it will come through to work better for our 14 people. 15 16 Taikuu. (In Native) 17 18 Thank you. 19 20 CHAIRMAN BAKER: Thank you, Vern. Mr. 21 Michael Kramer, do you have any closing comments. 22 23 MR. KRAMER: Yes, I do. It's been a 24 pretty good meeting, sorry I wasn't there. Both me and 25 my son aren't feeling too well. But, you know, 26 hopefully next meeting I'll be able to meet everybody 27 and probably bring my little persuader here, he's the 28 boss, bring him along with me. But it is good to hear 29 all the -- you know, all the agencies with all their 30 projects, you know, starting to get back into the swing 31 of things, you know, I thank them for trying to get us 32 the caribou counts and, you know, now we just got to 33 work on trying to figure out how we could do some kind 34 of a predator control. I mean I hope by next -- at our 35 next winter -- early winter meeting that, you know, one 36 of the agencies, they get together and they figure out 37 something. You know at least the way that I spoke of, 38 you know, it ain't physically harming an animal but 39 it's that many less bears will be killing moose calves and, you know, the same with wolves. At least we're 40 41 trying to find a good way to do it and I think this way 42 is pretty productive and it's not harming any animals 43 and, you know, we're going to have a few less animals because we, as subsistence users, are just aren't 44 taking enough, you know, we're not getting enough 45 46 wolves, we're not getting enough bears. There's not as 47 many young hunters out there harvesting wolves even 48 though there is a local market for them but they're 49 just not getting out there too much, you know, 50

0297

0298 1 telephones and all these games and stuff like that. It's getting pretty tough to get some of these young 2 3 kids out there, some of the young ones out there to, 4 you know, get out there and start harvesting and stuff 5 so. 6 7 I used -- you know, with the bears, on 8 the State side we're allowed to harvest two bears a 9 year, sell the hides and skulls on the State side, you 10 know, the Federal, I think we're allowed three bears a 11 year, I can't really recall but, you know, not very 12 many people are going to harvest three bears a year to eat. I know a lot of people, you know, used to ever 13 14 really hunt them much in the past, I know some villages 15 do, some villages don't. So, you know, bear meat was never really a customary use and trade, you know, 16 17 resource. 18 19 Hopefully next time we'll have some 20 more youth with us, and youth involved in this. And I 21 thank KOTZ, man, you guys are getting our information 22 out there, we're keeping the people of our region 23 informed of all the regulatory changes. This is, you 24 know, our goal is to get you guys, you know, informed 25 of the changes in our regulations and to make it so we 26 don't get busted for doing, you know, doing the right thing, we're trying to fill our freezer but we don't 27 want to get busted for doing something to feed our 28 29 family, you know, especially now with Covid, times are 30 tough, times are still tough to this day even though 31 Covid is kind of, you know, either leveling out, 32 unsure, but, you know, we put all ourselves together we 33 should be able to conquer anything. 34 35 That's all I have. And I hope to see 36 some new members at the meeting. I know I referred some 37 people to Lisa and hopefully we'll get some village representatives at our next meeting. Hope to see you 38 39 all there. Okay, thank you. 40 41 CHAIRMAN BAKER: Thank you for those 42 comments, Mike. Do appreciate it. In the room, 43 Wilbur, do you have any closing comments. 44 MR. HOWARTH: Thank you, Mr. Chair, and 45 46 Lisa, for all your hard work, and the Council here, 47 Attamuk, Elmer, Mike, Vern. Vern, I wrote down this 48 caribou count thing. I'll get it to the IRA or to the 49 rest of the Council since I Chair the IRA and I'll make 50

0299 1 sure they get it and we could get something going. And once again I would like to thank everyone over here on 2 these chairs. It's kind of emptying out but very nice, 3 4 good job. Thank you all for being here. And this is a 5 real good meeting. I think we got lots done. 6 7 So thank you, Mr. Chair. 8 9 CHAIRMAN BAKER: Thank you for that 10 Wilbur. 11 12 (Laughter) 13 14 (Teleconference interference 15 participants not muted) 16 17 CHAIRMAN BAKER: So whoever's snoring 18 go ahead and mute. 19 20 (Laughter) 21 22 CHAIRMAN BAKER: So, Elmer, any closing 23 comments. 24 25 MR. ARMSTRONG: Thank you, Mr. Chair. 26 I want to thank all the agencies for your work, 27 gathering data, informing us with the information. I want to thank the Staff, the Council. It was a good 28 29 two days. I'm glad the information got out to the 30 public. Good meeting. I'm glad we're still working 31 together to take care of these issues that are ahead of 32 us and I look forward to the winter meeting. And, 33 also, the information that comes from the WACH meeting 34 on the State side. 35 36 Thank you. 37 38 CHAIRMAN BAKER: Thank you for that 39 Elmer. 40 41 Attamuk. 42 43 MR. SHIEDT: Yeah.... 44 45 MR. KRAMER: Yeah, Wilbur, Elmer, I 46 hope you guys are going to be with us for a long time. 47 48 MR. ARMSTRONG: Thanks, Mike. Lord 49 willing. 50

0300 1 MR. SHIEDT: Yeah, thank you Thomas, The meeting that's well run. And thank you to 2 Lisa. Staff for being here and answering our questions. I 3 4 think this is one of our better meetings. And, thank you, Walter, for sitting in and putting up with us, 5 from the public. And I thank you for being here. This 6 7 is well-informed. And I hope we do better for our people to preserve and able to harvest caribou in the 8 9 future. I hope Mother Nature fool us and turnaround 10 and numbers go up next year. You never know, maybe 11 they migrated the other way and I hope they come back 12 because like I always state, our people can't live 13 without caribou and we need to preserve it. And I hate 14 to see a reduction taken because -- it's our source, 15 it's our life, and we live on caribou. And your -- the public is welcome to call me, which I do get a lot of 16 17 calls, especially from the younger generation from 18 Noatak and Kivalina and Noorvik, I do get a lot of 19 calls, thank you you young people that call. But like 20 I stated, we need to have to invite the schools here, 21 hopefully the future generation take over and take my 22 seat. I'll gladly give up mine for a young guy, a 23 young mind maybe will work better. 24 25 Thank you all, and thanks Staff. 26 Thank you, Attamuk. 27 CHAIRMAN BAKER: For myself, thanks everyone for sticking it out with 28 29 us. I know it's been a pretty packed couple days. And 30 just echoing the other members of the Council, we've 31 covered a lot of ground and like I said earlier we 32 couldn't do it without the people actually doing the work in the offices and helping gather all this 33 34 information and helping keeping us on track. So with 35 that I don't have anything else besides thanks again, 36 great meeting. 37 38 Do we have a motion to adjourn. 39 40 MR. ARMSTRONG: Motion to adjourn. 41 42 MR. SHIEDT: Second. 43 44 CHAIRMAN BAKER: All those in favor 45 please signify by saying aye. 46 47 MR. CLEVELAND: I so move. 48 49 IN UNISON: Aye. 50

CERTIFICATE UNITED STATES OF AMERICA ) )ss. STATE OF ALASKA ) I, Salena A. Hile, Notary Public in and for the state of Alaska and reporter for Computer Matrix Court Reporters, LLC, do hereby certify: THAT the foregoing pages numbered through contain a full, true and correct Transcript of the NORTHWEST ARCTIC SUBSISTENCE REGIONAL ADVISORY COUNCIL MEETING, VOLUME II taken electronically on the 1st day of November 2022; 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 Anchorage, Alaska, this 23rd day of November 2022. Salena A. Hile Notary Public, State of Alaska My Commission Expires: 09/16/26