NORTH SLOPE SUBSISTENCE REGIONAL ADVISORY COUNCIL MEETING

PUBLIC MEETING

VOLUME II

North Slope Borough Assembly Chambers Utqiagvik, Alaska August 23, 2018 11:00 a.m.

COUNCIL MEMBERS:

Gordon Brower, Chairman Rosemary Ahtuangaruak Esther Hugo Wanda Kippi Fredrick Neakok Steve Oomittuk Robert Shears

Regional Council Coordinator - Eva Patton

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Page 138 PROCEEDINGS 1 2 3 (Utqiagvik, Alaska - 8/23/2018) 4 5 (On record) 6 7 CHAIRMAN BROWER: I'm going to go ahead 8 and call the meeting back to order and get out of recess from yesterday. We're a little bit past 11:00. 9 10 Do we need roll call or do we just need to go ahead and get back to work. 11 12 13 MS. PATTON: Mr. Chair and Council. 14 Roll call vote would be helpful at this time. We can 15 establish quorum. 16 17 CHAIRMAN BROWER: All right. I think 18 Wanda has not come in yet. 19 20 MR. NEAKOK: She should be here soon. 21 We just got done 22 eating. 23 24 CHAIRMAN BROWER: Eva, do you want to 25 do the roll call real quick for us. 26 27 MS. PATTON: Sure. Gordon Brower, 28 Utqiagvik. 29 30 CHAIRMAN BROWER: I'm here. 31 32 MS. PATTON: Welcome, Gordon. Robert 33 Shears. 34 35 MR. SHEARS: I'm here. 36 37 MS. PATTON: We just heard Wanda Kippi 38 is on her way in. Steve Oomittuk. 39 40 MR. OOMITTUK: I'm over here. 41 42 MS. PATTON: Welcome, Steve Oomittuk. 43 Fredrick Neakok. 44 45 MR. NEAKOK: Good morning. 46 47 MS. PATTON: Good morning. Jerry 48 Sikvayugak. 49 50

Page 139 1 (No comment) 2 3 MS. PATTON: Jerry is absent in 4 Anaktuvuk Pass. Esther Hugo, Anaktuvuk Pass. 5 б MS. HUGO: I'm here. 7 8 MS. PATTON: Good morning, Esther. Lee 9 Kayotuk, Kaktovik, is in a training today and will not 10 be with us. Rosemary Ahtuangaruak, Nuigsut. 11 12 MS. AHTUANGARUAK: Here. 13 14 MS. PATTON: Good morning, Rosemary. 15 Thank you. At this time we do have six Council members 16 present. Again, Wanda Kippi was just on her way and 17 will be joining us here shortly as well. 18 19 CHAIRMAN BROWER: Thank you, Madame 20 I think we a quorum and we can get back Coordinator. to business. We'll acknowledge Wanda when she comes 21 22 in. With that, I think we're under Item 11, agency We concluded with Fish and Game, so I think 23 reports. 24 we're on Gates of the Arctic National Park. 25 26 MS. PATTON: Mr. Chair and Council. We 27 actually do have one more caribou report from ADF&G. 28 Jason Caikoski was hoping to be able to call in here at 29 11:00. I do have a brief summary on both the Central 30 Arctic and the Porcupine Caribou Herd that Beth Lenart 31 had provided for the Council, so that should be on your table in front of you there. 32 33 34 CHAIRMAN BROWER: Very good. 35 36 MS. PATTON: Maybe I'll just check in 37 and see if Jason Caikoski is on teleconference at this 38 time. 39 40 MR. CAIKOSKI: Hi, Eva. I'm here. 41 42 CHAIRMAN BROWER: You have the floor. 43 44 MR. CAIKOSKI: Hi, folks. I don't 45 really have anything to present. As you know, Beth 46 normally does these agency reports and she's out of 47 town, so we provided you with like a two-page summary of the most recent info and data we gathered from 48 49 Central Arctic and Porcupine Herd. I told Eva I'd call 50

Page 140 If you guys wanted to look over that sheet that we 1 in. handed out and I can answer any questions you have 2 3 about it or anything else that comes to mind. 4 5 MS. PATTON: Mr. Chair and Council, if 6 I may. Jason, we have several Council members who were 7 weathered out and are not able to be here in person. 8 They are on teleconference. I know you guys try not to read from the summary, but because we do have several 9 10 that were not able to receive the summary and don't have it in front of them, if you wouldn't mind maybe 11 just to cover the key bullet points there. 12 13 14 MR. CAIKOSKI: Yeah, sure, I can do 15 that. So this summer that's ending now we did not get 16 a photo census for the Central or Porcupine Herd. The 17 last photo census for Central Arctic was in 2017, so 18 last summer, and it resulted in an abundance estimate 19 of 28,000. Slightly above the number in 2016. Some of 20 this increase was likely due to higher resolution photography. 21 2.2 23 At this point, considering the estimate we got last year and then some of the demographic 2.4 25 metrics like parturition rates, survival estimates, et 26 cetera, we basically consider the Central Arctic Herd stable at the 20-some thousand at this point. 27 28 29 For Porcupine Caribou, the abundance 30 estimate last year was 218,000. That's the highest 31 recorded abundance since we've been doing these surveys 32 starting in the late '60s. Survival, parturition 33 rates, early summer calf survival have all been 34 excellent the last few years. We suspect the herd is 35 continuing to grow. 36 37 So those are the main two points. 38 39 CHAIRMAN BROWER: All right. Any 40 questions to -- who is the presenter? 41 42 MR. SHEARS: Jason Caikoski. 43 44 CHAIRMAN BROWER: Jason. Any questions 45 to Jason. 46 47 This is Point MR. OOMITTUK: Yes. 48 Hope. 49 50

Page 141 1 CHAIRMAN BROWER: Go ahead, Point Hope. 2 MR. OOMITTUK: Yeah. So you weren't 3 4 able to get a photo census for 2018, is that what you 5 said? 6 7 MR. CAIKOSKI: That's correct. Yeah, 8 for both herds. We didn't really attempt one for Porcupine because they're well above management 9 10 objectives, so we switched to every other year or every third year schedule. We did try to get Central Arctic 11 because it's near the lower end of the management 12 objective, but the weather just was not cooperative and 13 14 they didn't group up this year. 15 16 MR. OOMITTUK: You said you had an 17 estimate of 218,000? 18 19 MR. CAIKOSKI: The 218,000 is for 20 Porcupine Caribou and that was last year's estimate. Based on the demographics, we think that herd is 21 22 continuing to grow, but don't have a current number for this summer. And the Central Arctic Herd abundance 23 estimate was 28,000 last year. We think that herd is 2.4 25 probably stable at best. 26 27 MR. OOMITTUK: All right. Thank you. 28 We keep getting cut off, so I'm trying to get the 29 numbers right. 30 31 MR. CAIKOSKI: Okay. 32 33 CHAIRMAN BROWER: Thank you, Steve. 34 Any other questions for Jason from the Council. 35 36 MR. SHEARS: Mr. Chair. 37 38 CHAIRMAN BROWER: Mr. Shears. 39 40 MR. SHEARS: Good morning, Jason. Bob 41 Shears here. A question about the Porcupine Herd photo 42 census process. How do you accomplish the photography 43 in Canadian air space. Is there a joint agreement? Is 44 this a count that is accomplished through multi-45 national organizations? 46 47 MR. CAIKOSKI: That is exactly correct. 48 So in years when Porcupine aggregate both in Alaska and 49 in Yukon/NWT (Northwest Territory) we do the 50

Page 142 photographing in both countries with telemetry support 1 by the Yukon Department of Environment. So we do the 2 3 radio telemetry in Alaska. We photograph those groups 4 with our aircraft and they we go to Canada. Yukon Department of Environment does the radio tracking, but 5 6 we still do the photography in Canada. 7 8 MR. SHEARS: Thanks. 9 10 MR. CAIKOSKI: Yep. 11 12 CHAIRMAN BROWER: Any further questions 13 for Jason from the Council. 14 15 (No comments) 16 17 CHAIRMAN BROWER: I got a question on 18 the Porcupine Herd. The amount of harvest that occurs, 19 is that well measured in Alaska? I've heard periodically that the Porcupine Herd has not made its 20 way on more than one occasion to be able to harvest 21 22 from Kaktovik. 23 24 MR. CAIKOSKI: Yeah, so communities 25 within the range of the Porcupine Caribou Herd, mostly Kaktovik, Arctic Village, Venetie and then a little bit 26 27 from the villages on the periphery, Fort Yukon, 28 Chalkyitsik, et cetera, we have very poor harvest 29 reporting. So what we do in lieu of that is we 30 estimate harvest based on per capita harvest rate by 31 all those villages and that's just kind of a standard 32 that we use. 33 34 So for Alaska, unreported harvest for 35 all the villages within the range, including some right 36 on the periphery, we estimate somewhere between 400 and 37 700 caribou a year, but that's no year specific. So 38 it's just a range we use for every single year. We 39 don't have year specific harvest let's say from 40 Kaktovik or Arctic Village. 41 42 CHAIRMAN BROWER: Thank you. There's 43 some interesting things I think I learned. You could 44 get a registration permit and then report your catch in 45 locations online and I think that should be highly 46 encouraged. Some of the villages have poor mail 47 delivery systems and the ability to provide harvest reporting, you put that on line I think it would 48 49 simplify a lot of things I would think. 50

Page 143 MR. CAIKOSKI: No, I agree. 1 I think the Department and the Board of Game would be 2 3 supportive if local residents, whatever system it was, 4 would encourage or it would be easy for them to report 5 harvest for every year. 6 7 CHAIRMAN BROWER: Any further questions 8 for Jason from the Council. 9 10 MS. HUGO: Mr. Chair. 11 12 CHAIRMAN BROWER: Go ahead, Esther from 13 Anaktuvuk. 14 15 MS. HUGO: Jason, I just wanted to know 16 the Porcupine Herd they no longer travel to our area, 17 do they? This is Esther from Anaktuvuk. 18 19 MR. CAIKOSKI: Hi, Esther. Yes, your observations completely match the satellite and 20 telemetry data we have. We have not had any Porcupine 21 22 Caribou get over to Anaktuvuk for as long as we had 23 satellite collars on the herd, so at least the last 10, 2.4 15 years. 25 26 MS. HUGO: Thank you. That's the big 27 herd that we'd usually get when I was growing up. So 28 thank you. 29 30 MR. CAIKOSKI: Yep. 31 32 CHAIRMAN BROWER: Thank you, Esther. I 33 just want to welcome Geoff Carroll, a long time ADF&G 34 biologist up in the Arctic. It's always good to see Geoff when he shows up. 35 36 37 MR. CARROLL: Thank you. 38 39 CHAIRMAN BROWER: Just like Esther, you 40 know, my dad was a reindeer herder back in the '30s and 41 '40s before pipeline days and all of these barriers 42 were developed. And they would highly guard the 43 reindeer against caribou very heavily. He recalled 44 sometimes looking at major herds. I don't know how 45 they could detect it, but they did because they moved 46 quite a bit around. 47 48 When he talks about going from upper 49 Ikpikpuk to Kayuktusiluk and visiting people over that 50

Page 144 way on the Colville, their range of the reindeer was 1 quite extensive. They often would interact with herds 2 3 and watch herds collide. That was something that he 4 had mentioned when he was alive anyway. He would talk about herds were able to -- big herds collide together. 5 6 7 I just thought that was important 8 because I think caribou move quite freely and easily without all that industrial infrastructure in place. 9 10 Anyway, I just thought it was important to mention that. 11 12 13 MR. SHEARS: I've got one more 14 question, Mr. Chair. 15 16 MR. MATHEWS: Mr. Chair. 17 18 MR. SHEARS: Go ahead. 19 20 CHAIRMAN BROWER: Whoever is online go 21 ahead. 2.2 23 MR. MATHEWS: This is Vince Mathews. Т 24 just want to give an update on harvest reporting to 25 improve for the Porcupine Herd in Alaska. We have been 26 talking with the four tribes involved with that herd 27 and we have contacts in each of the communities. This 28 winter I'll be working with them to put in a tribal 29 wildlife grant to explore ways of getting a higher 30 confidence level or getting harvest data on the Porcupine Caribou Herd. So that is pending, you know, 31 for a grant that will be submitted next year. 32 33 34 CHAIRMAN BROWER: Thank you, Vince. Ι 35 think those are great initiatives and hope the money 36 comes and they all go to the tribes and they get 37 somebody that's working on these kind of things. Ι think it's important work. 38 39 40 Mr. Shears. 41 42 MR. SHEARS: Jason, do you see any 43 foreseeable risks to the 44 Porcupine Caribou Herd calving due to the seismic 45 exploration coming up in the 1002 area of ANWR next 46 year? 47 48 MR. CAIKOSKI: Just so everybody 49 understands what he's talking about, there's an 50

Page 145 environmental assessment that's being drafted right 1 2 now. Not by Fish and Game, through BLM that would permit seismic exploration in the 1002 area during this 3 4 winter and potentially next winter. It's my understanding that the seismic work will be done 5 entirely in winter when the ground is frozen. They'll 6 7 be on ice roads, building ice roads, snow roads, that 8 kind of thing, done during the middle of winter. 9 10 They're not going to be permitted to conduct the work until there's adequate snow cover and 11 those type of things. They'll be out and have all 12 their equipment, et cetera, off of the 1002 lands prior 13 14 to calving by quite a bit. I think like March. So the 15 seismic work itself should not be occurring any time 16 there's caribou of any numbers. 17 18 As you guys probably know, most of the 19 Porcupine winters on the south side of the Brooks Range 20 in both Alaska and Canada. Sometimes in the Richardson Mountains. Old Crow Flats as well. There should not 21 22 be much disturbance. There shouldn't be many caribou up there. So the seismic work itself shouldn't have any 23 2.4 impact or very little impact on caribou. 25 26 CHAIRMAN BROWER: Thank you, Jason. 27 That was kind of my train of thought on the impacts. 28 Any further questions to Jason from the Council. 29 30 MR. OOMITTUK: Yes. This is Point 31 Hope. 32 33 CHAIRMAN BROWER: Go ahead, Point Hope. 34 35 MR. OOMITTUK: Hello. Just a little 36 bit of a biological background. You know, in the early 37 2000s they did a count with the Western Arctic Caribou Herd, the Teshekpuk Caribou Herd, the Central Arctic 38 and Porcupine. It peaked at over 700,000 animals. Do 39 40 you have any idea what -- and they come together in certain areas. They overlap each other in Unit 26A on 41 42 a map that we could see these. Do you have any idea 43 what the population is, the total amount, for 2017 or 44 2018? 45 46 MR. CAIKOSKI: If we were to use the 47 most recent Porcupine and Central estimates, which 48 would be both from last year, we're looking at 49 something around 240-250,000. If Carmen is there, we 50

Page 146 could add up then -- we could put whatever the current 1 estimate of Teshekpuk and Western Arctic is on top of 2 3 that. I'm guessing it's somewhere around 500,000 to 4 600,000, I'm guessing. 5 6 Jason, this is Carmen MS. DAGGETT: 7 with Fish and Game and 56,225 is the Teshekpuk Caribou 8 Herd number and I believe the Western Arctic Caribou Herd is 259,000 if I'm not mistaken. 9 10 11 MR. CAIKOSKI: All right. Hold on here. 12 Yeah, so roughly 560,000 is what that math tells us. 13 Obviously some of those estimates aren't current, but I 14 think it's fair to say somewhere between 500-600,000 15 between all four. 16 17 CHAIRMAN BROWER: Thank you, Jason. 18 Did you get that, Steve? 19 20 MR. OOMITTUK: Thank you. So when you do these -- you know, I noticed in the past they did 21 22 per village, you know, with the estimated usage of the 23 caribou for each of the villages. Do you guys still do that kind of research of the number of caribou for each 2.4 25 community from the herd or is that a different -- or you just mainly do the census? 26 27 28 I don't think I totally MR. CAIKOSKI: 29 understand the question. Are you asking..... 30 31 MR. OOMITTUK: The harvest of -- what's 32 the harvest of each community, whether it's bulls or 33 females at certain times of the year? Do you guys do a 34 count of the harvest for what is taken in each 35 community throughout the year what is estimated 36 compared to the numbers and how it dropped? Is there 37 any research on that why the numbers had dropped so 38 drastically? Is it a disease that went through on some of these herd? You know, the Western Arctic Caribou 39 40 dropped by more than half. When you do these censuses, do the predators overtake that much of the herd and was 41 42 that considered? 43 44 You know, you're talking some big 45 numbers. We don't have a population of people, you know, what the total population of the North Slope is 46 for that. What, 10,000? Per household, the number. I 47 seen some old -- you know, they say one per family, 48 49 different things. Do you guys do a number on what is 50

Page 147 actually taken in each community when you do your 1 2 census on harvesting? 3 4 MR. CAIKOSKI: For Porcupine Caribou 5 and the bulk of the communities in Central Arctic Herd range, we do not have village specific harvest either 6 7 in total numbers or time of year or by age or sex class. I'll let Carmen address that for Teshekpuk and 8 Western Arctic. 9 10 11 MR. OOMITTUK: And also include -- do 12 you guys monitor sport hunters or do they get permits 13 and what is taken from nonresidents or sport hunters 14 that come into the area within the Borough? 15 16 MR. CAIKOSKI: For nonlocal hunters and 17 for nonresidents we do have records of what they take and when they take it for Porcupine and Central Arctic 18 19 and I suspect for Teshekpuk and Western Arctic as well. 20 So we do have those data. 21 22 MS. DAGGETT: Steve, this is Carmen 23 with Fish and Game. 24 25 MR. OOMITTUK: Thank you. Are we going 26 to hear those numbers? 27 28 MR. CAIKOSKI: Let me look them up for 29 Porcupine. For Porcupine, the last -- basically since 30 the mid '80s the highest harvest by nonlocals and 31 nonresidents combined has been 149 caribou. It's generally between 75 and 130 per year. For Central 32 33 Arctic Herd, let me look here. Well, last year Beth 34 has that 223 caribou were taken by nonlocal hunters or 35 nonresidents. 36 37 Thank you, Jason. CHAIRMAN BROWER: 38 39 MR. OOMITTUK: Thank you. 40 41 CHAIRMAN BROWER: That was the information you needed there, Steve. 42 43 44 MS. DAGGETT: He had kind of another 45 part to his question about the Teshekpuk and the 46 Western Arctic Herd taken and evaluating that. I can 47 answer that part of the question if you like. 48 49 CHAIRMAN BROWER: Go ahead there, 50

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1 Carmen. 2 3 MS. DAGGETT: This is Carmen Daggett 4 again with Alaska Department of Fish and Game. Steve, 5 you asked questions about how many caribou are being taken out of the Western Arctic and Teshekpuk Herd and 6 7 how we're evaluating that. Right now we're working 8 with that RC907 caribou registration permit and those 9 permits several of them have been issued. 10 11 I believe there were 17 that were 12 issued to Point Hope, about 16 to Utgiagvik, 7 to 13 Wainwright, 7 to Point Lay, 4 in Nuigsut, 14 in Atgasuk and 12 in Anaktuvuk Pass. They were issued last year 14 and we're still waiting to hear back from many of those 15 16 hunters to give an estimate of harvest based off of the permits that we do have out would be a little premature 17 18 for the Teshekpuk Caribou Herd for sure. 19 20 I think that data, even when we do get it, might not entirely be completely representative of 21 22 all the hunters because we still need to get a lot more permits out to those villages. That's how I would 23 address that particular question about harvest in the 2.4 25 Teshekpuk Caribou Herd. 26 27 As far as the Western Arctic Caribou 28 Herd goes, there's been extensive amounts of permits 29 that have gone out in Unit 23. In Unit 22, there's an RC800 permit that they've been working on getting out 30 31 for a little bit longer than the RC 907 permits. Those will all be included in the take for the Western Arctic 32 33 Herd in addition to the animals that would come from 34 Unit 26A. 35 36 So the short answer is that any data 37 that we would have right now on harvest through our RC907 permits would be preliminary and probably won't 38 be complete until we get more permits out in hunter's 39 40 hands. 41 42 As far as other means of getting data, 43 I know there's been subsistence surveys and things like 44 that done in villages. As far as getting regular data 45 on that, I know they do their surveys on a cycle and it's often every three years or so from what I 46 47 understand. I don't have those numbers in front of me. I could get them if you wanted me to look them up. 48 Ι 49 could talk to Beth Mikow about that. 50

Page 149 1 CHAIRMAN BROWER: Thank you, Carmen. Ι 2 just wanted to..... 3 4 MR. OOMITTUK: Yeah, I still have one 5 more question, Mr. Chair, Gordon. б 7 CHAIRMAN BROWER: Go ahead there, 8 Steve. 9 10 MR. OOMITTUK: Just out of curiosity, you know, after the closure of hunting to nonresidents 11 on Federal lands, and especially with the Western 12 13 Arctic Caribou Herd, do you have an estimated number of 14 nonresidents? Now they're going on State land. I saw something in the report that they're moving to State 15 16 land where they're able to hunt, the nonresidents. 17 18 But, you know, the last two years it's 19 been closed to nonresidents. Have you seen a number of nonresident caribou hunting drop or is the number still 20 at its estimated count for nonresident hunting on the 21 22 Western Arctic Caribou Herd? 23 2.4 MS. DAGGETT: That's a great question, 25 Steve. Quite honestly I'd have to do a little bit of 26 research to answer that 27 question. It would be kind of difficult to answer the 28 portion about State lands versus Federal lands and 29 shifting, but it would be easier to probably parse out -- you know, comparing numbers between the years that 30 31 we had that closure in the Noatak region versus not. 32 33 So we might get some sense of where 34 those hunters were and it might take a little while to tease that out, but it probably could be figured out. 35 But I can't answer that question right now. I'd have 36 37 to do some research and get back to you. 38 39 MR. OOMITTUK: Okay, thank you. I was 40 just wondering if the nonresident hunters have to get a 41 permit or, you know, how much are they able to harvest 42 and if they're being regulated and one day do harvest 43 an animal, are they taking what they're supposed to 44 take and who monitors all that when you have a nonresident hunter come in on State land and taking 45 caribou and then taking it back to where the residents 46 may live. Are they taking the actual poundage of meat 47 that is -- is that monitored by any of the Fish and 48 49 Game or the game wardens? 50

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1 2 4 5 6 7 8 9 10	MS. DAGGETT: Great question, Steve. I'll try to make sure that I answer all the parts of that question that you asked. So, first of all, they are required to have permits. They're also required to purchase a metal locking tag as a nonresident hunter. They're allowed to take one bull per year at least out of Unit 23. I would want to double check myself on the 26A regulations, but I think they're pretty similar if I'm not mistaken, but I'll double check myself on that.
11 12 13 14 15 16 17	As far as how they're monitored, I know after having lived in Kotzebue myself and worked quite closely with Trooper McGinnis there, I've been to several meetings with him and heard him describe how he would patrol those areas and also spend some time at the airport too when hunters come back through Kotzebue.
18 19 20 21 22 23 24 25 26 27	A lot of the hunters that come through 23 would work with different outfitters and those outfitters had processing facilities at the airport and were pretty diligent about trying to make sure that their hunters were taking good care of their meat and the Unit 23 working group had worked pretty extensively to try to reduce and address the issue of wanton waste of caribou coming out of that region.
28 29 30 31 32 33 34	So there's definitely people who have been turned in in the past for doing that and have gotten in trouble for that, but it seems like the number of people that are seeing that and complaining about that have gone down since all those Unit 23 working group things have been implemented.
35 36 37 38 39	There's also the pilots who are licensed to fly in that area are required to take a pilot orientation in order to be able to work in that area. That's what I'm familiar with out of Unit 23.
40 41 42 43 44 45 46 47 48 49 50	As far as what happens in 26A, I would say we have less of a law enforcement presence as far as troopers go in this region. Also I have to admit that I haven't been here long enough to really have a good sense of what happens here. So I have a lot to learn and I'm just going to admit that up front because you guys all know it too. So I'm not going to comment on what's happening in 26A other than I know that there's not law enforcement that's based here through Alaska State Troopers anyways.

Page 151 1 CHAIRMAN BROWER: Thank you, Carmen. 2 Hope that was informative there, Steve. 3 4 MR. OOMITTUK: Thank you. 5 6 CHAIRMAN BROWER: Any other questions 7 to ADF&G from the Council. 8 9 (No comments) 10 11 CHAIRMAN BROWER: Hearing none. Let's 12 go to the next agency report. 13 14 MS. PATTON: Mr. Chair and Council. Ιf 15 I may, just check and see if we still have Rosemary 16 online. 17 18 MS. AHTUANGARUAK: Yes, I'm here. 19 20 MS. PATTON: Okay, Rosemary. I just wanted to make sure we didn't lose you. If you had any 21 22 questions for Jason on the Central Arctic Herd. 23 24 CHAIRMAN BROWER: All right. So we 25 have Gates of the Arctic 26 National Park. That would be Marcy Okada. 27 28 MS. PATTON: Thank you, Jason, for 29 joining us. It's a busy field season for everybody, so 30 I really appreciate that. 31 32 MR. CAIKOSKI: Thank you, guys. I just 33 wanted to let Eva and all you guys know I'm going to 34 sign off now. I've got another meeting to go to, but 35 thanks for having me. 36 37 CHAIRMAN BROWER: Very good. Marcy, 38 you have the floor. 39 40 MS. OKADA: Good morning. My name is 41 Marcy Okada. I'm the subsistence coordinator for Gates of the Arctic National Park and Preserve. 42 Eva's 43 handing out some handouts I'll be covering today. We 44 have Kyle Joly on the phone and he's going to give a presentation on the Western Arctic Caribou Herd 45 46 projects that Park Service has been doing. 47 48 So we have Steve and Rosemary on the 49 phone and unfortunately they don't have the Park 50

Page 152 update, so if you folks don't mind I'm just going to go 1 2 ahead and read it. 3 4 CHAIRMAN BROWER: Yeah, go ahead. Ι 5 think that would be real helpful for Steve and 6 Rosemary. 7 8 MS. OKADA: So Gates of the Arctic 9 National Park Subsistence Resource Commission met in 10 Allakaket on April 17th to 18th, 2018. There was much discussion on the Ambler Mining District Road with the 11 12 National Park Service providing updates and Allakaket 13 and Alatna tribal members providing testimony, and the 14 SRC members sharing information about their comment letter that went to both the Park Service and the 15 16 Bureau of Land Management. 17 18 The Park Service presented information 19 on proposed wildlife regulations for hunting and 20 trapping in National Preserves that are in the process of being amended. The SRC took action to send a 21 22 welcome letter to the Department of Interior Secretary Ryan Zinke to introduce themselves and to share their 23 24 concerns about the Ambler Mining District Road. 25 26 Additionally, Park Service Staff 27 provided updates on both natural and cultural 28 resources. The next SRC meeting is scheduled for this 29 coming November in Fairbanks. As you folks know, Esther Hugo is our representative on the Gates of the 30 31 I'm not sure if Esther wants to add any Arctic SRC. 32 information on this meeting we had in April. 33 34 (No comments) 35 36 MS. OKADA: If not, I'll just keep 37 going. Kyle Joly is going to give more information 38 about caribou, but I did include a recent study that was done on lichens and caribou winter habitat. So I'll 39 40 just leave it to Kyle to share a little bit more 41 information about that project. 42 43 Park Service was able to conduct bear 44 surveys in nearly all 160 sample units which cover 45 approximately 18,213 square kilometers in Gates of the Arctic. Sample units are representative of the Park 46 Survey data was used to estimate bear density 47 habitat. and the number of bears per area. 48 49 50

Page 153 I did strike out a line and I'm going 1 2 to add information to that line that was struck out. 3 The preliminary estimate for brown bear density in the 4 survey area, which included Gates of the Arctic 5 National Park and Preserve and surrounding lands in Units 26A and B, 25A and 24A and B is 565 bears with 50 6 7 of those bears being cubs because the survey area is 8 larger than Gates of the Arctic. 9 10 Dall sheep surveys were conducted July 11 2nd to 8th of this year in the Itkillik and Anaktuvuk 12 areas by a pilot and one observers. All transects were completed in the Itkillik and about 80 percent of the 13 14 transects were completed in the Anaktuvuk areas. 15 Overall, numbers appear to be stable in both areas with 16 no major increase or decrease, but lamb recruitment 17 appears to be low in the Itkillik area. 18 19 Data will be analyzed and results will 20 be available at your next meeting. Park Service will continue annual sheep surveys in northeastern part of 21 22 Gates of the Arctic to monitor changes in sheep 23 population demographics. 24 25 I also want to share that our longtime 26 sheep biologist Kumi Rattenbury is no longer with the 27 Park Service, so we'll be filling that position 28 hopefully soon. 29 30 National Park Service and Alaska 31 Department of Fish and Game conducted a salmon stream survey in Gates of the Arctic and Kobuk Valley National 32 33 Park from July 23rd to August 13th. The effort was 34 used to identify undocumented salmon streams and 35 spawning habitat in the Upper Koyukuk and Kobuk Rivers. 36 37 Lastly, I have an update from our 38 Ranger Division. In response to requests from Anaktuvuk Pass residents, Gates of the Arctic was able 39 40 to staff the Ranger Station throughout the summer by 41 revolving staff in and out during times the local Ranger was away from the station. 42 43 44 We have a new Ranger. He used to work 45 for Gates of the Arctic and he has now returned as a supervisor. He was hired to coordinate search and 46 47 rescue, law enforcement and medical response. He'll be 48 based out of Bettles for part of the year. 49 50

Page 154 Remaining barrels on Park Service lands 1 2 at Chandler Lake near Anaktuvuk Pass were removed this 3 summer by Rangers, so this completes the coordinated 4 barrel removal project which started back in 2016. 5 6 MR. SHEARS: What's that mean, the 7 remaining barrels? 8 9 MS. OKADA: So these were barrels left 10 by the military. Some barrels were on Park Service lands around Chandler Lake and some barrels were on 11 private lands around Chandler Lake. So for the Park 12 13 Service side we had finished cleaning up those barrels. 14 MR. SHEARS: 15 These were like barrels 16 that were already staged, pulled out of the ground and 17 were ready to be removed. You guys just finished 18 picking them up or you actually dug more out? 19 20 MS. OKADA: So for this remaining portion all the barrels have been dug out and they were 21 22 staged and we just had to go pick them up and take them 23 out. 24 25 Thank you. MR. SHEARS: 26 27 CHAIRMAN BROWER: On the same question, 28 on the Park Service side, was there any synergies 29 developed to clean up the entire area even on private 30 lands? 31 32 So for the private lands MS. OKADA: 33 portion it was done through the tribe and a contractor. 34 The Park Service just worked on the Park Service side 35 of the lake. 36 37 CHAIRMAN BROWER: It seems to me you 38 guys ought to be able to hold hands and use the same contractor or something like that so that maybe there 39 40 would be some cost savings realized. 41 42 MR. SHEARS: Mitigate cumulative 43 impacts. 44 45 CHAIRMAN BROWER: Yeah, mitigate some 46 of that, you know, using additional different 47 contractors. You guys do things together and we're trying to advocate for as much as we can for any other 48 49 studies and things. If somebody is already conducting 50

Page 155 a study, you don't have to restate it. You can 1 probably pirate some of that information or work 2 together or do things together to minimize the impacts 3 4 on subsistence. 5 6 MS. OKADA: Guide Richard Guthrie, who 7 is permitted to guide in Itkillik Preserve Units 26A 8 and B, did not have any clients this past season for 9 sheep and bear hunting. 10 There were several search and rescue 11 12 events that occurred in the Park and Preserve this 13 summer mostly from inexperienced boaters who were 14 challenged by high water conditions. Injuries that 15 were incurred were treated by Park Service staff. 16 17 The last two bits of information are 18 more for Steve out of Point Hope. Park Service 19 recently hired Joe Dalle-Molle as a supervisory Park Ranger based in Kotzebue to coordinate search and 20 rescue, law enforcement and medical response in the 21 22 Western Arctic National Parklands. 23 2.4 Lastly, long-time Ranger/Pilot Dan 25 Stevenson based out of Kotzebue will be retiring at the end of September. 26 27 28 So if there's no other questions I'll 29 move on. 30 31 (No comments) 32 33 MS. OKADA: So the next sheet is just a 34 compiled list of field projects that occurred in Gates of the Arctic. All of these projects have to be 35 permitted. They received a research permit and they're 36 37 reviewed by an interdisciplinary staff within our office. Many of them are Park Service projects, but 38 then we also have projects that were conducted by 39 40 various universities and other entities. 41 42 I just want to point out that when it 43 comes to projects that have sites or locations near 44 Anaktuvuk Pass, we do require that the principal investigator or someone who is part of the project 45 46 present their project information to either the city or 47 tribal council. If the councils have concerns, then that input is incorporated. So that's just a compiled 48 49 list if any folks have specific questions about any of 50

Page 156 1 these projects. 2 3 (No comments) 4 5 MS. OKADA: If you come up with 6 questions later on..... 7 8 MR. OOMITTUK: Mr. Chair. 9 10 CHAIRMAN BROWER: Go ahead, Steve. 11 12 MR. OOMITTUK: Point Hope. I know you 13 have appointments to the Gates of the Arctic 14 Subsistence Resource Commission. I know the Governor 15 appoints three and the Secretary of Interior appoints 16 three and the RAC appoints three. Do you have a list 17 of who's all on the Arctic Subsistence Resource Commission? Are they the ones that you go up front to? 18 19 I know Esther Hugo was recently appointed for Anaktuvuk Pass to the North Slope Subsistence Regional Advisory 20 21 Council. 2.2 23 MS. OKADA: So I could go ahead and 24 list off our Commission members and how they're 25 appointed or I can send that to you, Steve, but if the Council is interested I'll go ahead and list off our 26 27 members. 28 29 CHAIRMAN BROWER: Steve, are you 30 interested learning who are the members or were you 31 just wanting information on how those members are 32 appointed? 33 34 MR. OOMITTUK: I know they're appointed but what kind of -- you know, there's the Commission 35 look at everything, you know, the Gates of the Arctic 36 Subsistence Resource Commission. I was looking for 37 38 what exactly is their job title. You know, what do 39 they oversee on the Gates of the Arctic so that we can 40 better understand, you know. What kind of power does 41 this Commission have. 42 43 CHAIRMAN BROWER: Okay, thank you, 44 Steve. I'm going to ask Marcy to go ahead and 45 elaborate a little bit more on that so that we're a 46 little bit more informed. 47 48 MS. OKADA: Steve, you're correct. 49 Three seats on the Commission are appointed by the 50

Page 157 Secretary of Interior, three seats are appointed by the 1 Governor of Alaska and three seats are appointed by 2 3 three different RACs. North Slope RAC, Northwest 4 Arctic RAC and the Western Interior RAC. 5 6 Esther is appointed by this RAC to our 7 SRC. We try to save two seats for the Community of 8 Anaktuvuk Pass and right now that second seat is vacant and we're in the process of trying to fill it and 9 10 that's the Secretary of Interior appointed seat. 11 12 The SRC for Gates of the Arctic as well 13 as all the SRCs for Park Service lands, monuments and 14 parks basically provide recommendations through a 15 hunting recommendation plan that goes to both the 16 Secretary of Interior, so they have a direct line to 17 Secretary Zinke, and that same recommendation also goes 18 to the Governor of Alaska so that we can keep the State 19 well informed. In essence, that basically helps to guide subsistence management within the Park. 20 21 22 CHAIRMAN BROWER: Just a question 23 following along that line there, Marcy. Does the 2.4 governor appoint anybody he wants or is there a certain 25 discipline that they -- was it Ryan Zinke -- I think 26 some of the concerns about who's making subsistence 27 recommendations and where they're coming from maybe 28 should really know about subsistence quite a bit in 29 order to make real prudent decisions for the Park. 30 31 MS. OKADA: So on our end for the Park Service we try to recruit SRC members by traveling to 32 33 the communities and getting the word out that there is 34 such a Commission in existence and share with the 35 tribal councils if they would like to put a name forth of folks that might be interested in serving on the 36 37 Commission. 38 39 So we try to get local input many times 40 to have people fill these seats. Then they go ahead 41 and apply and their name is put forth to the Secretary of Interior. Also there's an online application for 42 43 the State side that goes to the Governor of Alaska. So 44 we do try and recruit folks that do have local 45 knowledge and use of the Park. 46 47 Thank you. CHAIRMAN BROWER: I hope 48 that was helpful, Steve, a little bit more information 49 from Marcy on that. 50

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MR. OOMITTUK: Yes, thank you. 1 I was 2 getting mixed up because somebody was giving me papers 3 at the same time while I was trying to talk and I got 4 myself all confused there for a second. Thank you for that information. 5 б 7 CHAIRMAN BROWER: All right. Go ahead 8 and continue there, Marcy. 9 10 11 MS. OKADA: So my final update is on 12 the Ambler Mining District Road. As was shared at your 13 last meeting, there was a public comment period, 14 scoping period that was open and it closed on January 15 31st. A total of 201 unique correspondences were 16 received. In addition, more than 15,400 form letters 17 were submitted by the National Parks Conservation 18 Association and Wilderness Watch. Each comment was 19 read, analyzed and uploaded to the permanent project 20 record. There is a public comment summary report that's available online. 21 2.2 23 So speaking to Steve's comment 2.4 yesterday about concerns whether this road will 25 eventually become public. Many of the public scoping comments received did bring up those exact concerns 2.6 27 that this proposed industrial road might become public. 28 There was concerns about outside hunters coming in 29 utilizing an access road. 30 31 Currently the Park Service is working on an environmental and economic analysis and that's 32 33 what we're required to do per ANILCA. So we're on 34 track and that draft analysis will be available to the public for review and comment for a minimum of 30 days. 35 We're also waiting to hear more from the Alaska 36 37 Industrial Development and Export Authority on whether 38 they're going to proceed with this particular project. 39 40 MR. SHEARS: Mr. Chair. 41 42 CHAIRMAN BROWER: Mr. Shears. 43 44 MR. SHEARS: Marcy, is the Park 45 considering the advantages of this road to provide greater public access to one of the most access-46 restricted Parks in the nation? Are there other 47 thoughts, plans in the background for like a visitor 48 49 center or moving the Park headquarters onto the road? 50

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Page 159 MS. OKADA: As you might already know, the road would go through the southern portion of Gates of the Arctic, which is a Preserve Unit and Preserve Units are open to both sport hunting and subsistence. There has been much discussion on how we would manage that portion of the Preserve should a road go through. There has been discussion about a visitor's center and how we would staff that local area. As of this point it's in discussion and will be addressed through the environmental and economic analysis. MR. SHEARS: I guess my thought was would National Park Service take some ownership of the road or is there any thought, you know, like other National Parks and Preserves do? MS. OKADA: I guess I would answer that question we're -- you know, nationally, Parks and Preserves and Monuments, historic sites, they're managed for the public, the greater extent of America, so we have to take that into consideration. CHAIRMAN BROWER: Were you done on the Ambler Mining District road and ready for questions? MS. OKADA: I'm done with my updates and if there are any further questions, I'm happy to take them. CHAIRMAN BROWER: Any questions for Marcy on all of her subject matters. MR. OOMITTUK: Is this the Ambler Road? Is that what you're talking about? CHAIRMAN BROWER: Yes, Steve, that it was. MR. OOMITTUK: My understanding is that this road is not going to be open to public use. You know, that's what they said about the Haul Road up to Prudhoe Bay. It's a whole different story now. The migration route of the -- there was some concerns that were brought up because of the Western Arctic Caribou Herd migration route going south. It's near Ambler and where the mine is at, you know. There were some concerns that were brought up on that. Although it's not in our region, but the Park Service did come to

Page 160 Point Hope because we have concerns with the Western 1 Arctic Caribou Herd which we depend on. 2 3 4 Thank you. 5 6 CHAIRMAN BROWER: Thank you, Steve. 7 Any further questions for Marcy. 8 9 MR. SHEARS: One, Mr. Chair. 10 11 CHAIRMAN BROWER: Go ahead, Bob. 12 13 MR. SHEARS: Back to the Dall sheep 14 survey. Darn. I was a little disappointed that just 15 stable, no growth. We've had some better winters than 16 what caused the traumatic population decline back in 17 I was really hoping that we would see some 2012-2013. reported growth in the Dall sheep population. Is there 18 19 any indication or conclusions that can be drawn why 20 it's not growing faster? 21 22 MS. OKADA: I sure wish we had Kumi right now, but I don't think I could answer that 23 24 question. I think from year to year we're going to 25 continue to monitor those local populations in Itkillik 26 and Anaktuvuk Pass. We do the entire Park survey every 27 few years. Probably scheduled to do one in 2020. 28 29 So through surveys we'll continue to 30 monitor the populations in the Park and Preserve and 31 just see what happens. In the meantime, we're also working with local sheep hunters in Anaktuvuk Pass to 32 33 collect samples that are tested for disease. Then also 34 have a sheep pellet project where their anak is 35 collected and to look at what they've been foraging on. 36 37 MR. SHEARS: Okay. 38 39 CHAIRMAN BROWER: Any other questions 40 for Marcy. 41 42 (No comments) 43 44 CHAIRMAN BROWER: Hearing none. Thank 45 you, Marcy, for your updates and reports. 46 47 MS. OKADA: So we have Kyle Joly online and he's going to give a presentation via PowerPoint. 48 49 So that big screen is coming down and then he'll give 50

Page 161 an update and also an update on projects that the Park 1 Service has been doing with the Western Arctic Herd. 2 3 Then also Eva has some additional handouts if folks 4 want to look at those particular studies in more 5 detail. б 7 Thank you. 8 9 CHAIRMAN BROWER: Very good. So we're 10 going to go ahead and leave our mics and go to the rest of the audience to watch a PowerPoint. 11 12 13 MR. JOLY: Hello, Mr. Chairman. This 14 is Kyle Joly with the Park Service. I was just 15 wondering if you can hear me and can you see the screen 16 yet. 17 18 CHAIRMAN BROWER: They're going to work 19 on the screen right 20 now. It should be coming down. 21 22 MR. JOLY: All right. Well, I'm Kyle 23 Joly, wildlife biologist for Gates of the Arctic and I'm also the lead caribou biologist focusing in on the 2.4 25 Western Arctic Herd. I've been working with caribou for about 20 years now and then heading up the Western 26 27 Arctic Herd monitoring projects for the Park Service 28 for the last 10 years. 29 30 Were you able to get the PowerPoint up 31 vet? 32 33 MS. PATTON: Hi, Kyle. Just one moment 34 so we get the screen down and your PowerPoint loaded. 35 We'll check back in in just a moment. The screen is coming down now. 36 37 38 MR. JOLY: Okay. 39 40 (Pause) 41 42 MS. PATTON: Okay, Kyle. So we've got 43 your slide show lined up here and Marcy is going to 44 forward it. So just holler when you want to go onto 45 the next page image here. 46 47 MR. JOLY: Great. Thanks a lot, Eva. 48 49 If you don't mind again, MS. PATTON: 50

Page 162 we've got a couple Council members that are on 1 teleconference, so they don't have these handouts in 2 3 front of them. So feel free to provide lots of detail 4 if you can so those that are on teleconference can also 5 follow along. б 7 Thanks. 8 9 MR. JOLY: Yeah, sure. I'll try and be 10 as descriptive as I can. Marcy, do you want to just 11 flip to the next slide. 12 13 MS. PATTON: You're good to go. 14 15 MR. JOLY: I know some of you but not 16 all of you, so I just wanted to put a picture of myself up there. If you see me on the tundra or wandering 17 18 around town or at a meeting you might recognize me and 19 say hello. As I said before, I've been working with 20 caribou for about 20 years now. 21 22 Go ahead and flip to the next slide, 23 Marcy. 24 25 MS. PATTON: You're on, Kyle, so you 26 can probably just let Marcy know the next one and it 27 seems to be working pretty good here. 28 29 MR. JOLY: Great. So Carmen gave an 30 update yesterday about the herd, so I'm not going to 31 touch too much kind of on the demographics or the population side of things unless you guys have specific 32 33 questions. What I was going to do is focus in on Park 34 Service monitoring efforts. 35 36 Back in 2009 the Park Service, in close 37 collaboration with Fish and Game, BLM and Fish and 38 Wildlife Service, started up our monitoring effort and we deployed GPS collars at Onion Portage, which is in 39 40 Kobuk Valley National Park on the Kobuk River. So we 41 first deployed GPS collars in September of 2009. Since 42 that time we put out over 200 collars and we've got 43 those collars reporting in three times a day. So we've 44 got about 500,000 locations of caribou out in Northwest 45 Alaska. It's one of the largest caribou databases in 46 the world of its kind. 47 48 Go ahead to the next slide. 49 50

Page 163 So one of the key things that we've 1 2 been doing with our monitoring is to look at caribou 3 distribution and what you see here is an annual map of 4 where Western Arctic Caribou have spent their time. 5 The orange is kind of the high use areas and then the 6 bright orange is the really high use areas. 7 8 What you see there is that the calving 9 area shows up and then the corridor that goes to the 10 southwest to the Lisburne area where they spend early July before the bugs get really bad -- or as the bugs 11 get really bad they spend their time there and then 12 they'll shoot east across the Brooks Range, then in the 13 14 fall will typically -- most of the them will go through 15 the Brooks Range, through Kobuk Valley, often through 16 Onion Portage. 17 18 In the last 10 years or so they've 19 really been spending a lot of time on the Seward Peninsula rather than heading further south into the 20 Nulato Hills. 21 2.2 23 Next slide. 24 25 Another thing that we do is look at the distribution of migration. So what you're looking at 26 27 here is a map of the Noatak River and it's split up 28 into different segments and we show what percentage of 29 the population is going through different portions of the river. You can see in this that for fall 2017 that 30 the bulk of the distribution came through -- so almost 31 32 half the animals came through the Noatak about where it 33 splits between Noatak Preserve and Gates of the Arctic. 34 There's a little bit on either side. 35 Then there's guite a few, about 36 37 14 percent, came through that very western portion of 38 the river and that was kind of a late pulse, which is 39 fairly common. We'll have animals come running down 40 the coast sometime in November and running right 41 through the town of Kotzebue. 42 43 Next slide. 44 45 Along with the distribution of 46 migration we're also looking at the timing of 47 migration. What this graph is showing is when the 48 average time that caribou come through the Kobuk River. 49 In general, the caribou on average have been coming a 50

Page 164 little bit earlier in the year. That's what this graph 1 is showing. It's the seven years that we have data for 2 3 for when they're crossing the Kobuk in the fall. 4 5 One interesting thing is that while in 6 general the average has been earlier and earlier just 7 by a few days, the first animal crossing has been 8 coming later and later. So that's something 9 interesting that we've been able to track over the 10 years. 11 12 Next slide. 13 14 As well as fall migration we also look 15 at spring migration. We've seen a real big variability 16 when spring migration starts. How we're tracking that 17 is just when the animals are crossing the Selawik River 18 on their northward migration. There's been a couple 19 years where it's been very late. 2012, 2013 has been 20 very late spring migration, but 2014, '16, '17 were very early. Happening in mid April. 21 2.2 23 Next slide. 24 25 Another thing that our program has been 26 able to do is we've done a lot of research and 27 published a lot of papers on our research. This is 28 just a slide showing some of the titles of the recent 29 papers. These were all done in the last two years. Т was just going to take time to look at one of them, but 30 31 I'll be happy to take questions about any of them. 32 33 Next slide. 34 35 The one paper that I was going to point out is called Early Fall and Late Winter Diets of 36 Migratory Caribou in Northwest Alaska. So what we did 37 is we had a whole bunch of people go out and collect 38 39 fecal samples of caribou and we keep them frozen and 40 then we send them off to labs and identify what the 41 caribou have been eating. 42 43 What these graphs are showing is that 44 there's not really a huge difference between fall, 45 which is September, and late winter, which is primarily 46 March, samples. You'll see it's about 70 percent of 47 the diet is lichen, which is also known as reindeer moss. The other things that show up are shrubs, things 48 49 like willows, moss shows up about 10 percent of the 50

Page 165 diet, and you've got graminoids, which is grasses and 1 2 things like that, tussock grass. 3 4 One thing that we found in this study 5 is that caribou that are migrating -- we have a certain percentage of the population that doesn't migrate. 6 7 They'll stay up by Wainwright or something like that. 8 Those animals tend to have a lot less lichen in their diet and they're also more nutritionally stressed than 9 10 other animals. 11 12 An interesting thing, the last two 13 years we've had the highest percentage of animals 14 failed to migrate, so they all stayed in the Brooks 15 Range or further north. The last two years it's been 16 closer to 50 percent of our collars haven't migrated. 17 18 Next slide. 19 20 So I just wanted to keep it short and kind of introduce you to what we've been doing. 21 22 Hopefully Marcy has been keeping you updated with our papers and reports and things like that. I'm more than 23 happy to answer questions. We've got a lot of other 2.4 25 reports and presentations and things like that. Those can be found on our website, which is spelled out 26 there, which is a really long one. For you on the 27 28 phone, it would be easier just to email it to you if 29 you're interested in learning more about the program. 30 31 With that, I'd be happy to take any 32 questions that you might have. 33 34 CHAIRMAN BROWER: Any questions for 35 Kyle on his caribou stuff. 36 37 MR. OOMITTUK: Yeah, this is Point 38 Hope, Mr. Chair. 39 40 CHAIRMAN BROWER: Go ahead, Steve. 41 42 MR. OOMITTUK: Yeah, you know on the 43 Western Arctic Caribou Herd, the last couple years 44 we've noticed -- you know, usually we get them first part of July in the DeLong Mountains area, but the last 45 46 couple of years lately they've been coming during the 47 later part of July, almost in August. They're a little fatter, but we noticed they're staying up north a 48 49 little longer. 50

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1 We've had a good couple years of 2 caribou coming closer to our communities too. Even 3 though it's later, but they're coming back in their 4 usual routes that they travel ever since the closure of nonresidential hunting on Federal lands up north. Like 5 they're not being turned around and going somewhere 6 7 else, rerouted. For so many years the nonresidents or 8 sport hunters would be dropped in front of the herd and reroute them, but now in the last few years they're 9 10 coming back to their natural stomping grounds and we're seeing more and more in our area. 11 12 13 We don't have to go 60, 70 miles to get 14 caribou the last few years. They're practically right 15 on our doorstep. There was calves running around in 16 Point Hope early morning last year. There's some at the airport. It's good to see. Even though the 17 18 numbers are still down, it's good to see them coming 19 back taking their natural route that they've always 20 traveled. 21 22 MR. JOLY: Thanks for those 23 observations, Steve. 24 25 CHAIRMAN BROWER: Any other questions 26 for Kyle. 27 28 (No comments) 29 30 CHAIRMAN BROWER: I have one. You said 31 recent paths that the majority or some or a portion of the Western Arctic Herd is electing not to migrate over 32 33 the Brooks Range. Is that what I heard? 34 35 MR. JOLY: Yeah, almost every year we have a small fragment of the population staying north. 36 37 Often it's in the Wainwright area. Sometimes up by 38 Point Hope. It's usually just a few scattered animals. 39 Two years ago, two winters ago we had something like 40 40 percent of our collars not migrate south of the Kobuk and then last year -- I don't have the final number, 41 but I'm quessing about 50 percent didn't migrate south 42 43 of the Kobuk. They ended up in the northwest portion of 44 Gates of the Arctic primarily. 45 46 It was also a terrible winter for 47 survival of the collared animals as well. So I don't 48 know if deeper snow had anything to do with it. Т 49 don't know if you guys saw bad snow conditions up 50

Page 167 there, icing events, deep snow. Is that something that 1 2 you quys were seeing? 3 4 CHAIRMAN BROWER: Yeah, I think that it 5 was a pretty good snow year in many of the villages, many of the communities experienced that. 6 So I was 7 just curious as to the amount of those that just 8 overwintered in the North Slope side. Was that a 9 substantial amount this year or was it just a fragment? 10 11 MR. JOLY: Normally I'd say an average 12 is probably about 5 percent of the collars end up 13 north. There's some years one collar might show up or 14 two. This year I would say about 50 percent didn't 15 make it south of the Kobuk. Most of them ended up in 16 the mountains where Tinayquk comes into Gates of the Arctic, April Creek, Easter Creek, the upper upper 17 18 portions of the Noatak. We generally don't see large 19 numbers of Western Arctic Caribou ended up there, so it 20 was a little unusual for us. 21 22 Previously, I was noting those bright 23 orange spots on slide number four looking at the annual 2.4 distribution and that's because previous to the last 25 two years we saw this increasing trend of use of Bering 26 Land Bridge of the western portion of the Seward 27 Peninsula. 28 29 When we first started tracking it was 30 like 8 percent of the collars used it and then it 31 doubled to 16 and it doubled to 32 and it doubled to 64 32 and then we had one year it was like 75 or 78 percent 33 of all the collars ended up in Bering Land Bridge. 34 35 Since that time for reasons that I'm not sure of we've had less animals migrate. We're 36 37 trying to figure out what might be causing that, but 38 we're not sure what that is at this point. 39 40 MR. OOMITTUK: Mr. Chair, I have a 41 question. 42 43 CHAIRMAN BROWER: Go ahead, Steve. 44 45 MR. OOMITTUK: I know you noticed the 46 wind patterns have been changing the last few years. Lately we've been getting a lot of east wind or 47 southeast wind. The majority of our winds are staying 48 49 from the south or the east. I know the caribou like to 50

Page 168 go towards the wind when there's a bunch of mosquitos. 1 Lately you see the mosquitos are looking like birds 2 3 now. Swarms of them. 4 5 With the wind patterns changing, have 6 you guys seen them going further east, like you said 7 going into the Brooks Range, getting away from the 8 mosquitos that are out there. Warmer temperatures. 9 10 It seems like it's getting kind of 11 cooler, like we're getting back to our normal. It's 12 August and kind of cool out today. We've noticed 13 bigger snowflakes. An abundance of snow. But a lot of east wind and south wind. I don't know if that would 14 change some of the routes for some of these caribou 15 16 especially in the fall time. 17 18 MR. JOLY: Yeah, certainly caribou are 19 responding to the wind, temperature, precipitation, 20 rain and snow events. We've seen caribou walk 100 miles in one direction just walking right into the wind 21 22 during bad insect seasons. Just get in a line and just 23 walk right into the wind without stopping. 24 25 We don't really have good wind data 26 outside of the coastal villages where the weather 27 stations are. The Park Service has been working on 28 that and we've added about 16 weather stations across 29 the region and focusing on the Interior areas where we 30 don't have much data. 31 32 Unfortunately, I can't really say that 33 we can quantify how much of changes in migration 34 patterns and movement patterns are due to those wind 35 changes that you're seeing, but our hope is that eventually we will be able to start looking at that. 36 37 38 MR. OOMITTUK: Yeah, because, you know, 39 when we have a lot of west wind, especially in the fall 40 time when the caribou are around, they come to our coastline and they're right in our neighborhood in 41 42 abundance and they walk towards the wind. We always 43 like that west wind, but we haven't seen much west wind 44 lately. Most of it is south or southeast. It seems 45 like the prevailing winds have always made a 46 difference. 47 48 MR. JOLY: Thanks, Steve. Very 49 interesting observations. We hope to look at wind as a 50

Page 169 factor of caribou movements more. I think with these 1 new weather stations coming online that we will be able 2 3 to do that in the next few years, but we haven't done 4 it so far. 5 б MR. OOMITTUK: Thank you. 7 8 MR. JOLY: Thank you. 9 10 CHAIRMAN BROWER: All right. Thanks, 11 Kyle. Any other presentations on the screen that's 12 coming up? There's a question from Anaktuvuk. 13 14 MS. HUGO: Yes, Kyle, this is Esther. I've got a question going back to the 2009 tundra fire. 15 16 I just want to know do the caribou go around that area 17 or do they avoid that tundra area that burned back I know the lichen take years and years to grow 18 then? 19 back and I'm just curious about that. 20 21 MR. JOLY: Hi, Esther. Nice to hear 22 from you. Yeah, good question. So back in 2009 there was the largest tundra fire ever up on the North Slope, 23 the Anaktuvuk River fire. In general, caribou during 2.4 25 the winter will avoid burned areas because the fires burn up the lichen, which I mentioned constitute about 26 27 70 percent of their diet. Some animals we saw had 90 28 percent of their was lichen. 29 30 So in winter they will avoid those 31 The lichen that caribou prefer can take 50 to areas. 150 years to return, so they're very slow growing. 32 So 33 caribou tend to avoid those areas for a very long time. 34 35 Interestingly, the grasses grow back 36 stronger and fast after a fire. So it's possible that 37 if caribou are encountering those burned tundra areas 38 say in late spring or early summer that they might actually be attracted to it because there might 39 40 actually be more vegetation there. In forested area fires tend to be avoided at all times of the year 41 42 because the trees fall down and create this jumble, 43 which is very hard for caribou to get through. 44 45 So in the forested areas they'll avoid 46 them pretty much year round, but in the tundra you 47 don't have those toppling trees. My guess is that they'll probably avoid that area during the winter and 48 49 probably not so much say in the summer and early fall. 50

Page 170 The Western Arctic Herd really haven't 1 got out that way in a number of years. It's probably 2 3 been seven or eight years since we had many Western 4 Arctic Caribou as far as Anaktuvuk. They've been 5 getting close, like Chandler Lake and things, but really haven't been getting over to the Anaktuvuk 6 7 Valley itself a number of years now. 8 9 MS. HUGO: Thank you, Kyle. Besides 10 the sport hunters it might be due to the tundra fire that they haven't been migrating our way. 11 12 13 Thank you. 14 15 MR. JOLY: Yeah, you know, in the fall 16 I don't know if after a year or certainly by two years 17 that the grasses will have grown back and probably 18 grown back even stronger than they were. Talking to 19 Randy who went out on that fire, I know that was a really intense fire and burned really hard. 20 Unfortunately from the Western Arctic Herd side they 21 22 just haven't been getting that far over, so I haven't been able to see if that fire is having an impact on 23 2.4 where they're moving. It would probably be more 25 related to Teshekpuk and Central Arctic Herd animals 26 that would be over that way more often. 27 28 Thank you, Kyle. MS. HUGO: Good 29 morning. 30 31 MR. JOLY: Thank you. 32 33 CHAIRMAN BROWER: Any other questions 34 for Kyle on this presentation. 35 36 (No comments) 37 38 Thank you, Kyle. CHAIRMAN BROWER: 39 40 MR. JOLY: Thank you, Mr. Chairman. 41 I'll hang on for a little bit if there are any follow-42 up questions. 43 44 CHAIRMAN BROWER: Thank you. Does that 45 conclude the PowerPoint and we can get back to our 46 seats? 47 48 MS. PATTON: Yes, Mr. Chair and 49 Council. I just want to bring to the Council's 50

Page 171 attention we do have a small handful of some of the 1 reports that Kyle had referenced if you'd like a copy 2 3 or have any questions to follow up with Kyle in the 4 future. One of the research reports I know of 5 particular interest to Esther and others from Anaktuvuk Pass, Effects of Environmental Features in Sport 6 7 Hunting on Caribou Migration in Northwest Alaska. This 8 was in the Noatak area, but it starts to look at some of the questions that Anaktuvuk Pass has been asking in 9 10 terms of impacts to caribou migration. Caribou Vital Signs report for the Park Service and then also the 11 report that Kyle was just mentioning, the Early Fall 12 13 and Late Winter Diets. 14 15 Kyle, can you remind me. Were you 16 thinking you might be around and available possibly for 17 the winter meeting timeframe? 18 19 MR. JOLY: Yeah. If the Council was 20 interested, I could make an in-person visit as long s I didn't have a scheduling conflict. It would be fun to 21 22 come up there. 23 24 MS. PATTON: So if the Council has more 25 questions, we might be able to -- that might be an opportunity at the winter meeting as well. I've got 2.6 27 copies here if you like. 28 29 CHAIRMAN BROWER: Thank you, Eva. We 30 might as well roll up the screen and get back to 31 business. 32 33 MR. OOMITTUK: Mr. Chair. Is there 34 other different agencies? Is National Bureau of 35 Wildlife in the audience there? 36 37 MS. PATTON: Hi, Steve. This is Eva. 38 I think we did have Brian Person on teleconference 39 earlier. I know he had mentioned he had a pretty busy 40 schedule and was kind of multitasking while on 41 teleconference. Do we still have Brian Person on teleconference? 42 43 44 (No response) 45 46 MS. PATTON: Sounds like not right at 47 the moment, Steve. We could try to reach them if you had questions specific to the North Slope Borough and 48 49 maybe they'd be able to join back up with us after 50

Page 172 1 lunch. 2 3 MR. OOMITTUK: Okay, yeah. I just had 4 some questions on North Slope Borough wildlife. Are we 5 breaking for lunch or are we going to continue on? 6 7 CHAIRMAN BROWER: Steve, I'm going to 8 see what the Council wants to do. I think there's a couple more reports and we can actually wrap up if we 9 10 wanted to. Just for your information there was just an email that was circulated within the Borough for the 11 12 North Slope Borough Wildlife Committee meeting coming 13 up in September. 14 15 So what's the wish of the Council. Do 16 you quys want to take a lunch break or do you quys want 17 to push forward? 18 19 MR. SHEARS: Mr. Chair. I just got 20 notice that.... 21 22 MR. OOMITTUK: For me I think we should go forward and continue until we're done. I know we 23 just started at 11:00 and it's only been a couple 2.4 25 hours. I'll go with the majority. 26 27 CHAIRMAN BROWER: Bob. 28 29 MR. SHEARS: Mr. Chair. I just need to briefly step out for about 15, 20 minutes to meet with 30 a consultant who is in town only for today at 1:00 to 31 1:20 but I would recommend continuing. I'll catch up 32 33 with you guys. 34 35 CHAIRMAN BROWER: Very good, Bob. The 36 rest of the Council do you guys want to move forward 37 since we were late and try to wrap up early today? 38 39 MS. KIPPI: Continue on. 40 41 CHAIRMAN BROWER: All right, Steve. Ι 42 think the majority says let's get her done. 43 44 MR. NEAKOK: Roger. I'm all for it. 45 46 CHAIRMAN BROWER: So the next one on 47 the list would be U.S. Fish and Wildlife Service. 48 49 MS. PATTON: Mr. Chair and Council. If 50
Page 173 1 I may, kind of our strategy that we have was we're thinking maybe Randy Brown on his fisheries research 2 3 would go last to have an opportunity for the Council to 4 have -- he's got some great slide shows. I know Bob 5 would be interested in that one. Then Vince Mathews. As the Council wishes if you'd like to take up Randy's 6 7 next. 8 9 CHAIRMAN BROWER: Let's see, what's 10 next? We're putting too much in our brains. Let's just go by what's next. What do we want to do next. 11 12 13 MS. PATTON: So we have just two agency 14 One is Randy Brown on FRMP project reports left. 15 updates.... 16 17 CHAIRMAN BROWER: Okay. Let's get 18 Randy Brown up and let's get going. 19 20 MS. PATTON: Okay. He's got a slide 21 show as well, so sorry we just put the screen up. 22 23 (Pause) 24 25 MR. BROWN: Mr. Chair. Council 26 members. Are you guys ready? 27 28 CHAIRMAN BROWER: We're ready. 29 30 MR. BROWN: So my name is Randy Brown. I'm a fish biologist with the U.S. Fish and Wildlife 31 Service out of Fairbanks. I work with a couple 32 33 colleagues, Mike Courtney and Andy Seitz on this project. They're from the university. We've been 34 doing a number of Dolly Varden projects up north. You 35 folks know these fish as Arctic char. Formerly, in 36 37 fish taxonomy, they've been classified as Dolly Varden, 38 so that's how I'll be referring to them, but know we're 39 speaking about the same thing. 40 41 This is some work that I've been doing 42 on the Canning River over the last few years. Next 43 slide. We started this in 2014 and it's largely 44 because the possibility of development in the 1002 area 45 of the Arctic National Wildlife Refuge was kind of 46 imminent ever since the passage of ANILCA back in 1980. 47 We weren't really expecting it to be opened up this 48 last year. What we wanted to do was get an idea how 49 these fish were using that lower part of the river 50

Page 174 before the development got going real strong. 1 2 3 Next slide, please. 4 5 So one of the reasons we were б interested in this is because water is a really big 7 issue over in the west, like in the Sagavanirktok River area and farther west. This Google image shows there's 8 lakes all over the place and a lot of the ice roads and 9 10 domestic use and development water can be drawn from lakes over in this part of the North Slope. 11 12 13 Next slide. 14 15 But when you get over into the 1002 16 area between the Canning River, which is on the left 17 side of this image, same scale as the other, and the Hulahula River, which is most of the 1002 area you see 18 19 there, are really very, very few lakes. A few around the Canning River Delta and actually some of those are 20 brackish and pretty much nothing else. 21 22 23 The Canning River is the largest source of water in the entire 1002 area. So we're a little 2.4 25 bit concerned that if it was opened up, that there might be some incentive to try to draw water out of the 26 27 Canning River, which has really not been permitted over 28 in the west except for some of the large gravel pits 29 that have been dug in river channels to stockpile water 30 there. 31 32 There's only three rivers within the 33 1002 area that have these big anadromous runs of Dolly Varden, the Canning, the Hulahula and the Aichilik over 34 35 on the eastern side. If the development were ever going to happen, it was certainly going to be crossing 36 37 the Canning River first. So we thought let's figure 38 out how these fish are using the Canning. The timing 39 of migrations and other things before this got rolling 40 so we know what's at stake with this. 41 42 Next slide. 43 44 So back in the '70s when they were 45 looking at a possible -- this was during the Arctic gas 46 research where they were thinking of several different methods to get oil and gas from Prudhoe Bay down to 47 southern markets and one of the possible options was 48 49 running a line across the North Slope over to the 50

Page 175 Mackenzie and down. So there was a lot of money put 1 2 into figuring out what kind of obstacles they would 3 face and how they would manage that. 4 5 So this Peter Craig and Peter McCart, a 6 really incredible fishery scientist, they started 7 looking at where fish would spawn and would overwinter 8 in the entire eastern Arctic and this was a map they made of the Canning River where they identified the 9 10 major spring areas, major water spots and where the fish were occupying, which are the dark-shaded regions 11 12 in this case. 13 14 Then there were icings, you know, big 15 ice fields in a few places where they were unable to 16 identify whether fish were actually using those in the winter in the downstream of thatIgnek Creek and down in 17 18 the delta itself. So we thought, well, those are 19 certainly encroaching in on the 1002 area and it would 20 be good to know if fish were using those spots. 21 22 Next slide, please. 23 2.4 And the water over in the eastern 25 Arctic some of you may be really familiar with those rivers, but they're big, wide, shallow, fast rivers 26 27 that flow out of the mountains. During the winter the 28 flow in those rivers stops. What you have are these 29 perennial springs. This is a picture of one of the 30 perennial springs about six miles up the Marsh Fork of 31 the Canning River. 32 33 You can see it just comes out of these 34 two ports in the side of this mountain down a little 35 waterfall into a slough of the Marsh Fork there. When things freeze up in the winter, the river goes away. 36 37 It freezes up and there's no water flowing in it, but 38 that spring keeps going and that spring is, as with all of the springs over in the east, it's ancient water. 39 40 That's water that fell as rain or snow on the south 41 side of the Brooks Range anywhere from about 600 to 6,000 years ago and is coming up on the north side now. 42 43 44 45 So it flows at a constant rate in all of these springs. Constant rate and constant 46 47 temperature all through the year. It's unaffected by 48 any of the weather that is going on or summer and 49 winter. The water out of that spring comes out at 5 50

Page 176 degrees Celsius, which is 41 degrees Fahrenheit. 1 It creates a river or a stream for about a mile before it 2 3 gets frozen up into an aufeis field below, but there 4 are spawning Dolly Varden in there and overwintering 5 fish that hunker down in there. Those springs are actually where all of the fish in the eastern Arctic 6 7 reside all winter long. 8 9 Next slide. 10 This is a picture of Fish Hole 2 on the 11 12 Hulahula River. I did some work over there a little more than 10 years ago. Essentially what you have --13 14 this is a late winter shot and what you have is the 15 spring that flows for a few miles from where it emerges from the ground and then it gets bound up in this big 16 aufeis field that can go for 8 or 10 miles downriver 17 18 and fills the valley. 19 20 Upstream of that spring there's no water in the riverbed and downstream of the aufeis 21 22 there's no water, so they become isolated, which is how 23 the smaller springs work. But this spring is full of 24 fish in the winter and as soon as spring comes along 25 and the snow melts it cuts a path through that ice, they go to sea. The adults do anyway. But this is how 26 a lot of those springs over in the eastern Arctic are. 27 28 29 Next slide. 30 31 So starting back in the '70s and going 32 until pretty recent there have been some efforts to map 33 all of the major springs that fish overwinter in in the 34 eastern Arctic. There's a few in the Anaktuvuk River, 35 quite a number up the Sagavanirktok in some of the tributaries there, the Kavik, the Canning River has 36 37 quite a number of springs and the Hulahula has four, 38 the Aichilik has one, the Egaksrak has a spring, the 39 Kongakut has guite a bit of water down in the lower 40 stretch and then the Firth River and there's a few other areas farther to the east, the Babich (ph) and 41 the Big Fish and the Rat River up the Mackenzie. 42 Those 43 are the sites where virtually all of the big anadromous 44 Dolly Varden spend the winter. 45 46 Next slide. 47 48 So what we did is go down into the 49 lower Canning above the braided delta and we put in a 50

radio receiving station, which is that tower there with 1 a solar panel and a receiver and some antennas so that 2 3 when radio-tagged fish went out to sea we were able to 4 get a record of that and when they came back we could 5 get a record of that. We went and tagged fish with 6 some radios. 7 8 Next slide. 9 10 So our objective -- you can see these are a little smaller than your little finger, but they 11 were going to transmit for about two and a half years 12 and we could identify them by flying over in an 13 14 airplane and that tower was able to identify them going 15 out or coming back in. We wanted to get mature size fish and there have been a number of studies that have 16 shown that they mature somewhere around 40 centimeters 17 18 at the smallest fork length and that's about 15 inches 19 or so long. 20 21 So we wanted to get out a sufficient 22 number of fish to be able to have our statistics work 23 out when you have -- it works out better with large 2.4 numbers than small. So we were going to put out 105 25 transmitters each year for two years. It didn't work out exactly that way but pretty close. These fish 26 would be sedated. We do an operation which would take 27 28 three or four minutes, put them back into the river and 29 they would come to and be ready to swim off within about five minutes and they'd go on their way. 30 31 32 Next slide. 33 34 We were really expecting to see a bunch 35 of fish that were in spawning condition coming in in the latter part of August and early September, but 36 37 that's not really what happened. Most of the fish 38 looked like this fish here, bright silver with no sign of spawning. We tagged 67 fish that first year and 65 39 40 of them looked like this and were definitely not going to be spawning. Two were in spawning condition. 41 Ιt did kind of puzzle us. 42 43 44 Next slide. 45 46 But they went in and overwintered from 47 near the mouth of the Marsh Fork, which is about 80 or 48 90 miles up the river, down to a little below Ignek 49 Creek, so it was about a 60 mile stretch of the river 50

Page 178 that these fish went in to overwinter. About half of 1 them left the river in the spring in early June and a 2 3 few of them died over winter and the rest of them 4 stayed in the fresh water, which we weren't really 5 expecting at all. б 7 Next slide. 8 9 So Fred DeCicco is a fish biologist 10 that worked with Department of Fish and Game mostly on the Seward Peninsula in northwest Alaska and he was 11 12 able to identify this really unusual life history over in the Noatak, Wulik and Kivalina Rivers where some 13 Dolly Varden -- it would overwinter in their natal 14 15 streams -- would forego a trip to sea to feed the next 16 summer and stay in fresh water and then spawn that fall 17 and stay another winter in fresh water. For about 20 18 months they would be in fresh water. 19 20 The real confusing thing about it is that these big anadromous Dolly Varden don't eat when 21 22 they're in fresh water. There have been quite a number 23 of studies that have looked at diet and when they have 24 cut open fish in fresh water they find 90-95 percent of 25 them don't have anything at all in their stomachs and the ones that do have like a single small juvenile fish 26 27 or a single invertebrate in their stomachs. 28 29 So we don't really understand how they 30 do it, but by spending 20 months in fresh water they've 31 got to be really depleted. But we figured this had to 32 be what was going on over in the Canning River and this 33 really hadn't been documented in the eastern Arctic 34 before, so it really intrigued us. 35 Next slide. 36 37 38 Fred DeCicco, I brought him out of 39 retirement to come and join me for a while and we 40 floated through this stretch that these fish were summering in and found that they were big, mature fish 41 42 like this in spawning condition, so they were 43 definitely following that same life history that he 44 found in Northwest Alaska. So we put radios in 105 of these fish in July. 101 of them were in spawning 45 condition like this and only four were not preparing to 46 47 spawn. 48 49 Next slide. 50

Page 179 This was essentially a bar graph of our 1 deployment over the course of the summer with the green 2 3 bars being fish that were in spawning condition when we 4 tagged them and the light bars were fish that were 5 definitely not preparing to spawn. So we got very few of the fish preparing to spawn in the fall. 6 7 8 Next slide. 9 10 So we started following them. The ones that were preparing to spawn we tracked them in the 11 fall to their spawning areas. Those little shaded 12 13 circles on this map are where the spawning fish were in these clusters near Ignek Creek, Shublik Spring, up 14 15 Eagle Creek there's an isolated spring up there and at 16 the mouth of Eagle Creek Plunge Creek. 17 18 About a third of all the spawning fish 19 were present at the mouth at the Marsh Fork right along 20 the delta front there. The ones in the Upper Canning beyond there and the Upper Marsh Fork were these 21 22 isolated springs like the one I showed you over on the 23 Fish Hole 2. 24 25 Next slide. 26 27 The overwintering areas were -- so this 28 is both spawners and non-spawners from the Marsh Fork 29 mouth down. Only the spawning fish went up into Upper Eagle Creek and the upper part of the drainage, Marsh 30 31 Fork and the upper mainstem, in those isolated springs. 32 33 Next slide. 34 35 But you notice some of those fish were 36 overwintering down in that lower area right above the 37 delta there. So this is a Google Earth image of the big delta of the Marsh Fork where it joins into the 38 mainstem and it's about a three or four mile stretch of 39 40 river right along the front of the Marsh Fork that 41 these fish were spawning in and overwintering in. 42 43 Next slide. 44 45 And that area stays open all winter 46 long. It's full of fish. It's a really important place in the Canning. I think there's either perennial 47 springs or maybe an inriver aquifer in the gravel 48 49 that's built up there that leaks out and keeps that 50

Page 180 1 area thawed through the winter. 2 3 Next slide. 4 5 So this is a plot of their migration. The June bars in this one are the numbers of fish that 6 7 are headed out in the spring out to sea. You notice 8 the marks with the dates over them 2015, '16, '17 are the three annual periods where we had outmigration 9 10 data. What you'll notice is there's about a 10-day-long period where all these fish blast out into 11 the ocean. Past the station and down through the delta 12 and into the ocean. 13 14 15 Whereas the return migration, which 16 happens in July, August and September, they sort of slowly trickle in. The average time out to sea is 17 about 45 or 50 days. Because they're really not eating 18 19 when they're in fresh water that's probably the time it 20 takes for them to recharge their energy needs for the 21 whole year. 22 23 Next slide. 24 25 So one of the other things we found because we did aerial surveys of all of these 26 27 overwintering areas between the Anaktuvuk and the Firth 28 River for the three years after the initial tagging. 29 We found that quite a few fish migrated into other 30 streams to overwinter. 31 32 One thing about these Dolly Varden is 33 they're unable to overwinter in the sea because the saltwater freezing point is depressed below where their 34 35 fluids can tolerate it. They would freeze out in the So they have to come back into fresh sea under ice. 36 37 water to overwinter. 38 39 We had two go into the Hulahula, two in 40 the Aichilik, one in the Egaksrak, 23 of them went over to the Kongakut and we had two up in the Upper Firth 41 42 I don't know why they didn't go to the western River. 43 rivers, to the Sag or the Kavik or Anaktuvuk, but we 44 didn't find any of them there. 45 46 Of all the fish that went to sea and 47 came back into freshwater, about 37 percent of them 48 went into other rivers. This has always been 49 considered to be a real small fraction of fish, but 50

Page 181 nobody else had radiotelemetry technology to work with, 1 2 so I think it was just a matter of putting this 3 technology to work to discover this. 4 5 But this is what they do over in Northwest Alaska. They go freely into all sorts of 6 7 drainages to overwinter, but they seem to have fidelity 8 to their natal stream for spawning. So it looks like they're following that same pattern in the north. 9 10 11 Next slide. 12 13 This is just a photograph of the Lower 14 Kongakut in October. So we're looking kind of south and east. The delta is immediately behind us. 15 We're 16 right about the top of the delta. Most of the fish 17 were in about the 10 miles from here on up towards 18 Caribou Pass before the river takes a turn to the south 19 there. We're looking upriver on the stream. 20 21 Most of our radio-tagged fish were in 22 this stretch of the river and we could see down in it. This whole 23 It wasn't very deep and it was clear. stretch was just packed with fish, all of these pools. 2.4 25 It was an amazing spot there. And the Kongakut in this stretch has quite a bit of water flowing through it all 26 27 through the winter. It has open leads and it ices up, 28 but there's a lot of water flowing under the ice. 29 30 Next slide. 31 32 The last thing I want to show you is 33 about survival. We had enough radios that we were able 34 to identify survival difference between post-spawners, those that spawned in the fall, and we looked at their 35 survival over the next year, and non-spawners, those 36 37 that did not spawn in the fall and we looked at their 38 survival and compared the two. 39 40 Fish that survived the first winter 41 provided data for the second and that's why our numbers 42 are actually summed more than the tags that we put out. 43 But you can see, for example, if we had 180 post-44 spawners that were alive in the fall, and we had 139 45 that were alive in the spring, showing a winter survival of about 77 percent compared to non-spawners 46 47 that survived at about 92 percent through the winter. 48 49 Then we tracked the number that went to 50

For post-spawners it was 139 went to sea and only 1 sea. 2 61 came back into fresh water, whether in the Canning 3 or one of the other streams. For marine survival, about 4 44 percent. So over half of the fish that went to sea 5 failed to come back of post-spawners. They died at Whereas non-spawners, 102 went to sea and 58 6 sea. 7 returned, giving about a 57 percent survival. 8 9 So non-spawners are clearly surviving 10 at a better rate. When we look at the full year, we had only about a third of the post-spawners survived 11 12 through a whole year, whereas almost two-thirds of the non-spawners survived through a whole year. 13 14 15 We've always been kind of puzzled why 16 Dolly Varden don't get old. Arctic char in lakes and lake trout in lakes can get old. They can be 20 and 30 17 18 years old and lake trout even up to 50 years old and 19 Dolly Varden very few of them get beyond about 10 years 20 old. They mature at around six or eight and we have almost no fish over 10 years old. It always puzzled us 21 22 and we didn't really see where there was that great a mortality in fresh water. To see that really most of 23 2.4 their mortality occurs when they're out at sea. 25 26 I actually appealed to Lori Quakenbush 27 -- next slide -- to try to see what she thought. She 28 is a -- some of you may know her, but she is a great 29 marine mammal biologist with Department of Fish and Game. She sent me this picture of a beluga that was 30 31 taken in Cook Inlet. She had an opportunity to look in 32 its stomach and it had five whole sockeyes in the 33 stomach. If they can catch sockeyes in Cook Inlet, 34 they could surely catch Dolly Varden up in the Beaufort 35 Sea. 36 37 It would actually surprise me if they 38 don't target the mouths of these big rivers like the Sag or the Canning or the Kongakut in early June to 39 40 catch that big outmigration because you're going to have tens of thousands of these fish heading out into 41 the sea, blasting into that near shore marine water, 42 43 some of it behind lagoons, all in a really short period 44 of time. It would really surprise me if they don't 45 congregate there, the seals and the belugas, to take advantage of that food source. I suspect that's what's 46 47 going on and why there is such a large marine 48 mortality. 49 50

	Page	183
1 2	Next slide.	
3 4 5 6 7 8 9	So I just wanted to acknowledge some of the major supporters of this project. My office, the U.S. Fish and Wildlife Service, OSM Fisheries Resource Monitoring Program, which you folks have some influence, Arctic National Wildlife Refuge, Alaska Department of Fish and Game and then the field crew members including Uinniq Ahgeak.	
10 11 12	Next slide.	
12 13	That's all I have.	
14 15 16	So I can take questions if anybody has any.	
17 18 19	MR. OOMITTUK: This is Point Hope, Mr. Chair.	
20 21	CHAIRMAN BROWER: Go ahead, Steve.	
22 23 24 25 26 27 28 29 30	MR. OOMITTUK: Yeah, you know, the Dolly Varden or Arctic char, you know, has always been a vital food source to the people of Point Hope. We like to get them when they're coming back south. It used to be the mid part of August. Lately they were early this year and the later ones were a lot bigger than what we've seen in the past. It's good to see the Arctic char coming back more and more.	
31 32 33 34 35 36 37 38	The last 20 years it seemed like we didn't get that much as we did in the '70s or '60s. It's a delicacy to us to fill up our ice cellars or freezers. We never eat it cooked. We always have it frozen raw and never smoked them. It's good to hear all this study.	
38 39 40 41 42 43 44 45 46 47	You said that they winter in the fresh water, is that what you were saying? And they can live up to 50 years, some char? I don't know what the changes of climate and everything. Do you have an estimated count of the Dolly Varden that migrates up north and stays? I don't know if I heard right that some of them stay the winter up near Canada area on the east side of Alaska and some go down south.	
48 49 50	I was trying to follow, but I kept getting cut off there. I'm on teleconference. It was	

Page 184 1 very interesting hearing that they can go without eating for so long. Some of these Dolly Vardens are 2 3 pretty big lately. This year they're catching some 4 pretty good sized Dolly Vardens. They're very tasty. I didn't realize they could get that old, you know. I 5 don't know how you can tell how old the fish is. 6 I 7 don't know how they figure that out. 8 9 Thank you for that report. 10 11 It was very interesting. 12 13 MR. BROWN: Hi, Steve. This is Randy 14 back again. So I must have cut out in that aging 15 thing. What I was saying was that the Dolly Varden almost none of them get over about 10 years old, but 16 17 the lake trout can get up to 50 years old. Lake trout are closely related to Dolly Varden. Arctic char 18 19 living in lakes which is that -- so, from a fish biologist perspective, Arctic char are a little 20 different taxinomically than Dolly Varden. 21 22 23 The ones we classify as Arctic char in Alaska are living in these lakes similar to what the 2.4 25 lake trout do. They can get pretty old, 20 or 30 years old. Lake trout get quite a bit older. But these 26 27 anadromous Dolly Varden almost never get over about 10. 28 29 The aging is done using their ear 30 bones. They have to be sliced and then looked at under 31 a microscope. That's the way that works. They overwinter in fresh water. They don't have the ability 32 33 to be out under the ice in the super cooled water of 34 the saltwater during the winter. 35 36 MR. OOMITTUK: We have some 37 interference there or something. 38 39 MS. PATTON: Yeah, Steve, we're going 40 to try to disconnect from whoever has got us on hold 41 here. 42 43 (Pause) 44 45 MR. OOMITTUK: This is Steve here. 46 just had one more question. How far south do the char 47 go or the Dolly Varden when they are coming back. You mentioned that some of the lake char stay yearly in 48 49 those areas and they live longer, the trout. How far 50

Page 185 south do the char go or the Dolly Varden when they 1 2 migrate out? 3 4 MR. BROWN: Steve, I think the Dolly 5 Varden in the northwest, which is the Noatak, the Kivalina, Wulik, that's isolated from the Beaufort Sea 6 7 populations. The Beaufort Sea populations pretty much have natal origins in the Anaktuvuk River over towards 8 the Mackenzie River and I don't think they go anywhere 9 10 else. I think they occupy the coastal Beaufort Sea waters in that area during the summer and they all 11 12 retreat into those rivers. I don't think they make 13 that run down into Kotzebue Sound or along the Chukchi 14 coast at all. 15 16 MR. OOMITTUK: All right. Do you have 17 any concerns with the Dolly Varden with diseases or 18 with the climate change? Have you done any studies? 19 20 MR. BROWN: Yeah, Steve, I don't think we have any concerns with them. We were doing this 21 22 research specifically to look at how they are -- you know, the timing of their 23 migrations in the Canning River, where they're 2.4 25 overwintering. We were gathering other information too because we could, but it was more from the interference 26 27 with natural flow patterns in the Canning River that we 28 thought development might bring on these fish. 29 30 But I think that they're doing fine in 31 the rivers up there. They're being harvested along the coast in the winter and a few of the spring systems, 32 but I don't think there's an overharvest issue. 33 34 think their habitat is wonderful right now. We hope it stays that way. 35 36 37 MR. OOMITTUK: Thank you. 38 39 MS. DAGGETT: Hi, Randy. I'm Carmen. 40 I'm the area biologist here. I had just a quick 41 question. The type of tags that you were using were VHF tags, correct? 42 43 44 MR. BROWN: Well, they're 162 MHZ. 45 46 MS. DAGGETT: So you would have to fly over them to be able to detect where they're at, right? 47 48 You wouldn't be able to look at their -- you don't have 49 a map with where you would see them, right? You would 50

Page 186 1 have to fly a survey to do that, correct? 2 3 MR. BROWN: Yeah, that's correct. We 4 have to fly over the top of them. We fly at 1,200 or 5 1,500 feet over ground. We have antennas and essentially we can hear them. They're in pretty 6 7 shallow water and we hear them sometimes out at 5 to 10 8 kilometers, out to about 6 miles, and we get multiple records with signal strengths and we identify the 9 10 position at the strongest signal strength as we go over 11 the top of them. 12 13 MS. DAGGETT: Okay. 14 15 MR. BROWN: But you do have to fly them 16 or have a station where they swim by and you get a 17 record of them then. 18 19 MS. DAGGETT: Right. The reason why I asked was because I know that Brendan Scanlon had done 20 some GPS tag work out of the Kivalina and Wulik and he 21 22 had tracked some Dolly Varden all the way over to 23 Russia. 24 25 So I was curious if you guys had ever 26 done anything with GPS tags to see if they indeed were 27 staying completely in that area or if they were 28 migrating out elsewhere because they seem like they 29 could. But as you're saying, they obviously don't seem like they're going westward. 30 31 32 So I was just curious about that. 33 34 MR. BROWN: That's an interesting point because the Fisheries Resource Monitoring Program 35 36 funded Andy Seitz and Mike Courtney and I helped out on 37 that project as well. They put these pop-up tags 38 because they can't transmit from under the water and we deployed them in a number of Dolly Varden from the 39 40 Kongakut and the Sagavanirktok in coastal water in Kaktovik Lagoon. Some of those fish went as much as 50 41 or 60 miles offshore. They went along the coast 42 43 between the Sagavanirktok and the Mackenzie and then 44 some of them went far offshore, which we didn't know 45 they were going to do. 46 47 The work that you're talking about when 48 Brendan was involved Mike Courtney and Andy Seitz were 49 both involved in that. Those fish went out near 50

Wrangell Island out into the Chukchi. Those were from 1 2 the -- I think it was the Wulik River if I remember 3 right where they tagged them. Some of them were taken 4 in the Seward Peninsula in Kotzebue Sound or they were 5 located way out in the Chukchi, which we didn't know 6 they did. 7 8 Fred DeCicco had put regular dart tags on a number of Dolly Varden from that Kotzebue Sound 9 10 area and a couple of them ended up up the -- in one of the Russian rivers south of the Bering Strait, the 11 12 Anadyr. So we've known they can go a long ways, but we've seen no sign that any of the northern populations 13 have gone down into the Chukchi. It wouldn't surprise 14 15 me if there was a fish now and then, but I would be 16 surprised if it was much. 17 18 MS. DAGGETT: Thank you. That's it. 19 20 CHAIRMAN BROWER: All right. Any other 21 questions for Randy. Geoff. 2.2 23 MR. CARROLL: Randy, that was a fascinating talk. Would you explain again the source 24 25 of the water for those overwintering pools. I think you called it ancient water. 26 27 28 MR. BROWN: Yeah, I think that's one of 29 the more fascinating stories in the eastern Arctic at all is the perennial springs. There have been a number 30 31 of researchers from the university and elsewhere that have looked at that. They do some sort of stable 32 33 isotope analysis. I don't know exactly what it is, but 34 they're able to identify how long it's been underground 35 and isolated from the atmosphere. 36 37 The springs are different. For example Red Hill Spring, which is a hot spring, it's up around 38 95 degrees Fahrenheit, about 33 degrees Celsius. 39 So 40 it's quite hot. They think that one has been down quite deep in the earth before it rose to there, but 41 42 that one was about 6,000 years underground. Most of 43 the others were somewhere between 600 and 6,000 years 44 underground. 45 46 There's a big area in the southern 47 Brooks Range that is porous limestone and that's where 48 they claim the origin of that water is. It went 49 underground through the Brooks Range and emerges along 50

Page 188 a particular fault line on the north side where most of 1 the springs exist. Some of them are really strong 2 3 springs, like on the Kongakut. It starts right there 4 near Caribou Pass and it just flows and then goes all 5 through the delta and it goes across the lagoon and onto the Barrier Island before the end of winter. 6 It's 7 a huge flow in that river. 8 9 The Ivishak is another one that is 10 really strong flowing. There's a few of them. But that's all the water there is over there from the 11 Ivishak east. If it wasn't there, there wouldn't be 12 13 fish in those rivers. 14 MR. CARROLL: Well, that's amazing. 15 So 16 the water actually originates from south of the Brooks Range and comes all the way up there. Okay. 17 18 19 Thank you. 20 21 MR. BROWN: Yeah, there's a number of really good papers on that. I think it's well founded. 22 23 2.4 CHAIRMAN BROWER: Any other questions 25 for Randy. 26 27 (No comments) 28 29 CHAIRMAN BROWER: Having none. Thank 30 It was interesting and learned a lot you very much. 31 myself too. 32 33 MR. BROWN: Thank you. 34 35 MS. PATTON: Mr. Chair and Council. Ιf 36 I may just ask Randy. It's really unfortunate we don't 37 have Council member Lee Kayotuk here from Kaktovik 38 because I know he would really, really appreciate the 39 opportunity to engage in discussion with you. A lot of 40 the things you reported on are things that he's 41 reported over the years in terms of the community's 42 observations of where the Dolly Varden char are and 43 their overwintering habits. 44 Lee actually grew up in coastal Canada 45 46 in his early years and familiarity with where the char 47 are moving and feeding with the coming and going of the ice. So I was just curious if -- I know Karen helps 48 49 manage that FRMP grant program and oftentimes there's 50

Page 189 funds in there for a visit to the community itself. 1 Ιf there was any plans to have a presentation in Kaktovik 2 3 with the community there on your research findings for 4 this and some of the other projects as well. 5 6 MR. BROWN: Well, I've worked in 7 Kaktovik before and I would gladly go there and speak 8 on this research. 9 10 MS. PATTON: Thank you. Great. 11 12 CHAIRMAN BROWER: Thank you very much. 13 I think it would be well worth the effort for Kaktovik 14 and their fisheries. They're always talking about 15 char. 16 17 Mr. Chair and Council. MS. PATTON: Т might just add too Randy Brown has done many many years 18 19 of whitefish research as well. If the Council had any 20 questions or wanted to bounce observations off of Randy for some of his insights. The Council had quite an in-21 22 depth discussion yesterday in terms of their observations, changes they're seeing with whitefish in 23 the region. Randy is a real resource there as well. 2.4 25 26 CHAIRMAN BROWER: Thank you. The 27 whitefish dialogue we were trying to put together a 28 prioritization for a study on the North Slope based on the observations from Colville River, Nuigsut folks and 29 30 also the Tusikvouk Lake whitefish in that area and the 31 issues surrounding that. Then the major other 32 whitefish spawning areas around the Ikpikpuk and the 33 Admiralty Bay, that drainage that goes from the 34 Ikpikpuk River. The health of that is very healthy in 35 my view as I fish there quite a bit. 36 The issues developing around Nuiqsut 37 38 about Saprolegnia issues, fish mold in the whitefish in 39 that area and the impending possible development of the 40 Smith Bay area, the drainages for whitefish in that area. Just concerns that we have an area that hasn't 41 42 been touched with industrial operations and 43 development. 44 45 It would be ideal to get the baseline 46 information if not already, but with concerns around the Colville Delta. If you look at the Colville Delta, 47 there's pads, there's many of the islands in there, the 48 49 development around that has spurred on for at least 20 50

Page 190 1 years now. That was, I think, what we were talking 2 about. 3 4 MR. BROWN: Well, I've been keeping 5 track of the fungus infections of broad whitefish, the reports of those, and I've observed that in the Yukon 6 7 Drainage and also out in the Selawik Drainage as well. 8 I've spoken with Todd Sformo about that and I think he was going to put a proposal together the last round to 9 10 set up a monitoring program because -- I advocated that first because if there's just a small fraction of the 11 12 broad whitefish that are being seen with fungus. 13 14 It's a common thing that happens in 15 other populations as well. It might not be anything to 16 worry about, but if all of a sudden you had a large 17 fraction of the harvest being affected by this, then I 18 think that would warrant some sort of action to try to 19 figure out what was going on. I think that would be 20 much harder research to do. 21 22 So I thought if there was somebody that 23 could actually monitor the harvest and say, okay, how 2.4 many fish did you catch, how many were affected and put 25 that together for a couple years, then we'd have a better handle on whether this was a big deal or whether 26 27 it was -- you know, maybe it's new to that fishery, but 28 maybe it's still at a low level. 29 30 We've seen it on the Koyukuk River 31 after spawning. I saw it out in Selawik where there were a lot of Arctic grayling but also the humpback 32 33 whitefish being affected there. We probably saw -- and 34 I think that was a heat thing because it was in the 35 middle of the summer and the water was really warm at that point. 36 37 38 I know the State Pathology Lab says 39 that fungus is always present. It's present in all of 40 the streams in Alaska and it tends to take advantage of fish in some weakened condition or with a weak spot 41 where they've been abraded or a wound or something. 42 So 43 I thought that would be a first step to addressing that 44 issue. 45 46 CHAIRMAN BROWER: Thank you, Randy. Ι 47 think there's some efforts by the North Slope Borough to have those kinds of samples make its way to them so 48 49 they could analyze them. I think they've sent them 50

Page 191 even out, even out of the country to take a look at 1 2 them as well. 3 4 The other issue was that one of our 5 major lakes that's been in use forever is having stress. I don't know if it's stress, but the harvest 6 7 levels have drastically declined in our lake, the 8 Tusikvouk Lake, and it's of the same species. 9 10 I don't know. There's issues surrounding that fish and we thought it's important to 11 12 maybe check on this in the areas up in the north. I 13 appreciate the time and the feedback. 14 So if I could make one more 15 MR. BROWN: 16 comment. Broad whitefish are capable of migrating an 17 awful long way and the Yukon juveniles go out to sea 18 near the mouth and I think they stay not too far off 19 from the mouth. They don't go offshore or long 20 distance from the mouth, but those same fish will migrate up and spawn in the Yukon Flats and in the 21 22 Tanana and the Upper Koyukuk River. So they're making 23 thousand mile journeys upstream when they mature. 24 25 So I would not assume that broad 26 whitefish in these lakes anywhere along the North Slope 27 stay in those lakes. They may spawn somewhere 28 dramatically different far away. All broad whitefish 29 as well as humpback whitefish spawn over some sort of gravel substrate. Broad whitefish we're not aware of 30 31 anywhere they spawn that isn't in flowing water. 32 33 So those are the places I'd be looking 34 for if you're looking for spawning areas. If there are not any in these big lakes we're fishing because their 35 strategy is in the summertime they go into either 36 37 coastal waters or into lakes that are shallow and very 38 productive and they feed like crazy, but they then 39 leave and go somewhere else for overwinter and to 40 spawn. Like I say, it can miles and miles away. So it's not a trivial matter to find out where they spawn 41 or what the range of a population is. That takes some 42 43 dedicated effort. 44 45 Thank you. 46 47 CHAIRMAN BROWER: Thank you, Randy. Like everybody said, I think the char one was pretty 48 49 fascinating. The pools of water and things like that 50

Page 192 was interesting. Thank you very much. We can almost 1 2 clap for this one. 3 4 (Applause) 5 6 MR. OOMITTUK: All this fish talk is 7 making me hungry to go have an Arctic char. 8 9 (Laughter) 10 11 MS. PATTON: Thank you very much, 12 Randy. Glad you could be here in person. 13 14 CHAIRMAN BROWER: We can make our way 15 back to our seats and then roll up the screen. 16 17 MS. PATTON: We can gather back here. 18 We have one more agency report yet and that is Vince 19 Mathews for the Arctic National Wildlife Refuge 20 reports. 21 2.2 Vince, are you still with us online? 23 24 MR. MATHEWS: Yes, I am. 25 26 MS. PATTON: Wonderful. Thank you. 27 We're just getting the screen up from the PowerPoint 28 and regathering our Council here and we're good to go, Mr. Chair. 29 30 31 CHAIRMAN BROWER: All right, Eva. We're going to go down the line. Are we with Arctic 32 33 National Wildlife Refuge next? 34 35 MS. PATTON: Yes. Correct. 36 37 MR. MATHEWS: This is Vince Mathews with Arctic National Wildlife Refuge. As you know, I 38 generally attend your meetings, but I apologize. I am 39 40 staffing at the Arctic Interagency Visitor Center in 41 Coldfoot, which is very exciting because we have visitors from over 50 different countries come through 42 43 here and a majority of the United States. 44 45 They're very interested in learning 46 about the Arctic including the cultures. So this year 47 we had our Native liaison Crystal Leonetti come up and 48 make a presentation which was well received on the 49 cultures in Alaska. 50

Page 193 Early in your meeting during your 1 Regional Council updates and concerns there was 2 3 discussion about monitoring and law enforcement efforts 4 on the Dalton Highway Corridor. I did some outreach on that so I could give you an update on the efforts 5 within the corridor. First I'll start off with Fish 6 7 and Wildlife Service efforts. 8 MS. PATTON: Vince, can I just 9 10 interject here for a minute. Are you on speakerphone by chance? 11 12 13 MR. MATHEWS: Can you hear me better 14 now? 15 16 MS. PATTON: Yes, much better. Thank 17 you. 18 19 MR. MATHEWS: Okay. Well, real 20 quickly, I'm up here in Coldfoot if you caught that. We do a lot of visitors and we do an outreach program 21 22 myself as well as others on the Native cultures. It's 23 important that we get that message across to all the visitors from around the world. 2.4 25 26 Early in your meeting you guys talked 27 about concerns and wanting more information about 28 monitoring and law enforcement efforts on the Dalton 29 Highway. Here's a brief report on that. 30 31 Beginning the first week of August Fish and Wildlife Service sent one Federal wildlife 32 33 officer/pilot to patrol the Dalton Highway via airplane 34 and conducting road-based patrols. The officer concentrated on air boat activity in the Happy Valley, 35 36 Sag River DOT and Galbraith Lake areas along the 37 highway and to the east in the Arctic National Wildlife 38 Refuge. 39 40 There was no air boat activity or 41 hunting violations observed, not documented on the Refuge. In addition to road-based patrols, the Fish 42 43 and Wildlife Service had been conducting law 44 enforcement sheep patrols via airplane in the northern 45 areas of the Arctic. Very little activity has been 46 observed both in the numbers of hunters but also in 47 non-consumptive users. Patrols on the Refuge will 48 continue through the remainder of the hunting season. 49 50

Page 194 That's part of the Fish and Wildlife 1 2 Service effort, but since the corridor is also part of 3 Bureau of Land Management area, I have information on 4 the Bureau of Land Management law enforcement efforts. So basically the detailed law enforcement Ranger for 5 BLM has been based out of Galbraith Lake and has been 6 7 working on the north end of the corridor and he did not 8 observe -- I shouldn't say it that way. We don't have any hard data of what he observed as far as hunting 9 10 pressure. 11 12 I will stop there on the law enforcement part and see if there's any questions on 13 14 that. 15 16 CHAIRMAN BROWER: Any questions to 17 Vince on Law enforcement. 18 19 (No comments) 20 21 CHAIRMAN BROWER: Go ahead, Vince. 2.2 23 MR. MATHEWS: Okay. 24 25 MR. OOMITTUK: This is Point Hope. Thank you for that. I was concerned that there needs 26 to be an increase in law enforcement and watching that 27 28 area. Thank you. 29 30 MR. MATHEWS: Okay. And I did mention that now there is a State Trooper now stationed in 31 Coldfoot, which would also be assisting with law 32 33 enforcement efforts along the Dalton Highway corridor. 34 35 So with that let me turn to the summary 36 that you have in front of you and I'll just hit some 37 high points because Jason already covered the Porcupine Caribou Herd, which is discussed on Pages 2 and 3 in 38 39 your handout. I assume you have a copy of the handout. 40 41 Okay. So then we'll just go to the 42 moose, which is on Page 4. The main point there is 43 that the last survey 94 moose were observed during 44 2018, which is the largest number since 1984. So 45 there's been an increase in that. 46 47 If Lee was online, he'd be talking 48 about the permits, which basically the Refuge Manager 49 authorizes two permits for subsistence harvest, a bull 50

Page 195 moose in the Kongakut River Drainage. So permits were 1 issued to the residents and one bull was harvested 2 3 during this program in 2017. 4 5 The key point here is because of the 6 continued low moose population elsewhere on the north 7 side of the Brooks Range the Refuge recommends that 8 hunting be limited to the Kongakut River Drainage and 9 that no more than two permits per year. We're planning 10 on surveying the drainage again in April 2019. 11 12 Muskox pretty much the standard has 13 been no survey has been conducted and they're not just 14 basically seen that much in the Refuge. 15 16 CHAIRMAN BROWER: Hey, Vince. 17 18 MR. MATHEWS: Yes. 19 20 CHAIRMAN BROWER: On your moose, the amount of moose that were -- what was the previous 21 22 count and what was the jump and what was the age? Were they all fawns or were they mature recruitments? We've 23 always thought and some biologists have indicated that 2.4 25 these are transient, they come in from somewhere else and take up space and they suddenly get counted and 2.6 27 then maybe next year or a couple years down the line 28 they'll have a drastic decline and say where did they 29 go and then we'll have an issue with harvesting again. 30 31 Those are the easy train of thought that we've expressed for many, many years for Kaktovik 32 33 about the ability to harvest that moose and the 34 transient nature of these moose. I just want to maybe get a small picture of where did they come from. 35 Were 36 they born or did they come in from somewhere else? 37 38 MR. MATHEWS: Gordon, I don't have that information with me, but I can get it for the next 39 40 meeting. There's been lengthy discussions even at your meetings in the past about them. Some consider them a 41 42 migratory moose population and where they migrate from 43 and to and how they get up further north based on 44 population possibly further to the south. 45 46 So I would have to bring it up at the 47 next meeting. Actually show the data over time and 48 then if there was any information about their migration 49 pattern. I'm almost certain someone came to your 50

Page 196 meeting and testified at length on that. I'll put it 1 down as something to bring to your next meeting. 2 3 4 CHAIRMAN BROWER: Thank you, Vince. 5 Yeah, it would be very informative and I think it would б probably amount to maybe potential change in how 7 harvesting occurs if we are able to concretely and 8 definitively determine. Because it was said before, I could say maybe 15 years ago, the argument was raised 9 10 that, I mean, you kill all the moose off right there and the recruits will come in from another location. 11 12 13 A lot of the traditional knowledge 14 around that seem to suggest that they come in and then they hang out in this area. It seems like it's 15 16 starting to occur and I'm not sure we're capturing 17 those statements made because it's just starting to 18 become prehistory now because it's so long ago that we 19 stated some of these things. 20 Correct. MR. MATHEWS: 21 And it was also 22 an issue with Eastern Interior on that portion of the 23 migration. I will get material together and maybe we can get the person that could best discuss this maybe 2.4 25 on your next agenda. I know it's been discussed at 26 your meetings and at Eastern Interior meetings. 27 28 So I'll move on. You guys talked about 29 sheep. I think I'll leave it up to you to look that 30 I know there was discussion earlier in the over. 31 meeting why haven't the sheep populations rebounded, if 32 that's the right word, in the Gates of the Arctic. 33 34 There seems to be some relatively high lamb abundance in 2016 and '17 within Arctic National 35 Wildlife Refuge. 36 37 38 MS. PATTON: Vince, I think we lost 39 you. 40 41 CHAIRMAN BROWER: Well, after all, he's 42 in Coldfoot in a remote area. 43 44 MR. EVANS: This is Tom Evans. If I 45 could say something on the moose. I have a bit of an 46 update on the moose in the Kongakut. 47 48 MS. PATTON: Sure, Tom. I think that 49 would be great while we're waiting for Vince to join us 50

Page 197 1 again. You could provide that update. 2 3 MR. EVANS: To answer the question that 4 Gordon had, there were 80 adult moose and 14 yearlings. Those are 11 month, year old moose in the last survey. 5 There was some talk in the last report that I got from 6 7 Steve Arthur for information from him was that they think that maybe in the past some of the surveys 8 haven't been conducted when the majority of the moose 9 10 are in the area and the evidence for that is they're finding snowmachine tracks up by the passes and they 11 12 think those are from sheep hunters. So they don't know if disturbance from hunters has affected previous 13 14 counts in the Kongakut area at least where most of the 15 moose seem to be. 16 17 So that just gives you a bit of an 18 update on what I know. 19 20 MR. MATHEWS: Mr. Chair, I gather the phone went dead. We've been having trouble with phones 21 22 here in Coldfoot. I don't know where to re-begin. Ι was going to suggest that as far as the summaries on 23 like the Pacific Common Eider and like the tundra 2.4 25 nesting birds on the Canning River and the Alaska Migratory Land Bird Monitoring Survey be left for you 26 27 guys to review at your leisure and if there is 28 questions, I can work those back through Eva if that's 29 okay. 30 31 CHAIRMAN BROWER: I think that's appropriate considering we might have another outage 32 33 and maybe you'll get cut off. 34 35 MR. MATHEWS: Okay. 36 37 CHAIRMAN BROWER: We know you're busy. 38 39 MR. MATHEWS: Yeah, I apologize for the 40 cutoff. I don't know what caused that, but we've been having -- there goes my computer crashing. Anyway, I 41 42 think what you're generally interested in is on Page 12 43 on commercial permits. The Refuge is required to 44 regulate businesses that bring in clients and who guide 45 clients during their Refuge days. 46 47 In 2018, the Refuge issued 19 permits for air operator businesses, 16 permits for 48 49 recreational guide businesses and 15 polar bear viewing 50

Page 198 tour operators and/or boat operator quide businesses 1 and 11 hunting guide businesses. 2 3 4 I believe you would all know that 5 there's been an increased interest in polar bear viewing and part of the commercial polar bear viewing, 6 7 so there's been a temporary freeze on guided polar bear viewing. It was made at the end of 2016 to try to 8 stabilize the increase while the Refuge evaluates 9 10 options for managing polar bear viewing program in the future. So the freeze will continue while the 11 12 evaluation effort is underway. 13 14 So those that already have permits will be able to renew them as long as they had a permit in 15 16 2016 and aren't proposing to do anything different. 17 18 I'll pause there on the polar bear 19 viewing management to see if there's any questions or 20 if you have additional information on the management of polar bear viewing. 21 2.2 23 CHAIRMAN BROWER: Thank you, Vince. 2.4 Questions to Vince on commercial recreational 25 permitting. 26 27 MR. OOMITTUK: Yeah, I have a question, 28 Mr. Chair. 29 30 CHAIRMAN BROWER: Go ahead there, 31 Steve. 32 33 MR. OOMITTUK: You know, on the polar 34 bear issue, it seems like I saw something on Facebook about polar bears interacting with grizzly bears and 35 36 mating and seeing a polar bear that looked like a 37 grizzly bear. Are they able to mix? Is there any 38 sightings of polar bears that look like grizzly bears? 39 40 MR. MATHEWS: If I understand your 41 question, is there breeding between polar bears and 42 possibly grizzly bears? 43 44 MR. OOMITTUK: Yes. 45 46 MR. MATHEWS: Yeah, there's been 47 reports of that. Again, I'm not a biologist. I just 48 go by what I read and hear at meetings. There are some 49 of them around, but they are very few. There's 50

interest in finding out if there's going to be any 1 changes in the numbers. Right now my understanding is 2 3 there's very few -- I can't even think of the new name 4 for the polar grizz. But that's the latest I know of from reading different articles and public meetings. 5 б 7 MR. OOMITTUK: Thank you. Yeah, 8 because I know it was in the Arctic National Wildlife Refuge area and I was just wondering if you knew 9 10 anything about that. Thank you. 11 12 MR. MATHEWS: Polar bears do range 13 pretty far. It was a few years ago one ranged as far 14 down as Yukon Flats area. So some do range pretty far and there is some change in how and how long they stay 15 16 on shore. Everyone will be monitoring that situation. 17 18 We're near the end here. I already 19 talked about the Arctic Interagency Visitor Center. Extremely important because we're outreaching to -- I 20 can't list all the countries. As far away as Vietnam, 21 22 China, Japan, New Zealand, Australia, et cetera. They're definitely interested in the Arctic environment 23 but also the Arctic cultures. 2.4 25 26 Finally, I'll put in a little campaign 27 pitch here. There is what's called the Native Youth 28 Community Adaption and Leadership Congress. I was 29 asked to be faculty to that. That is over 100 high school aged youth from across America that are 30 31 recognized for their leadership and get together at a 32 congress to look at different issues. 33 34 Why I'm bringing it up here is that there was only 10 from Alaska and with 220 tribes there 35 needs to be more interest by youth across the state to 36 37 maybe look into going to the congress. The ones that I 38 observed from Alaska definitely blossomed there. For some of them it was their first time out of state. 39 40 They blossomed by the fact that they were able to see 41 other Native youth in leadership. 42 43 Hopefully we'll get more interest for 44 future congresses. That will be held in July. With 45 that I will pause and see if there's any questions. 46 47 CHAIRMAN BROWER: Vince, this is 48 I'm going to go back one page and go back to Gordon. 49 your polar bear guiding and the recreational 50

permitting. To what extent do you work with your 1 2 applicants to make sure they're meeting other 3 regulatory requirements within the North Slope Borough? 4 5 Gordon, I would not know MR. MATHEWS: What I can do is get Jennifer Reed who's 6 about that. 7 the one that's heavily involved in this planning effort 8 and monitoring and all that for the polar bear. Ι really don't know on that. I just know there's a lot 9 10 of discussions between the various parties there. You know better than I there's a complex land makeup there 11 12 that brings up other issues. So I would have to have Jennifer get back to you on that. You're focusing on 13 14 the youth ambassador or are you looking at the guides 15 themselves? 16 17 CHAIRMAN BROWER: Yeah, I was going 18 back a little bit. I'm very proud of the youth 19 ambassador stuff and I think that's super awesome. But 20 I was going a couple pages back to not just the polar bear viewing issues, and there are those because we've 21 22 had some permitting issues surrounding that and local 23 resident concerns about outside guides working in areas and taking up space they believe should be relegated to 2.4 25 the community to express other things like the recreational guides in the ANWR itself and the extent 26 of the orientation that's provided to them about other 27 28 regulatory processes that they need to go through 29 because I don't think we've seen the 19 permits that you've issued, that ANWR has issued to guides make its 30 way to the North Slope Borough themselves as well. 31 32 33 MR. MATHEWS: Yes. You know, it's a 34 lengthy process when they go through to get these permits, but your question is how is the North Slope 35 Borough informed or involved in it. Is that what 36 37 you're asking? 38 39 CHAIRMAN BROWER: Not involved. I mean 40 we'd like to be involved and talk more about building 41 relationships and things like that, but those operators that are operating without a Borough permit are 42 43 basically in violation. Should we find out about it, 44 we will issue violation notices to those folks. It's 45 like \$1,000 a day from the beginning of their operation. It could easily be a \$300,000 fine if we 46 look at their permits issued to them and they've been 47 48 operating under that and providing reports. We just 49 count the days back. 50

Page 201 If you have 365 days a year and you're 1 2 holding that permit for five years and we find out on 3 year two, you could easily have a \$600,000 fine issued 4 from the Borough because every day that a violation 5 exists is a separate offense. That's the kind of regulatory responsibility we have on some of these 6 7 kinds of issues within the Borough. 8 9 MR. MATHEWS: Correct. I'll have to 10 look into that. I'm speculating the guides are required to contact the Borough, but I don't have 11 12 direct knowledge of that. 13 14 CHAIRMAN BROWER: Yeah, I think it's 15 important. I think the BLMs, the Gates of the Arctic 16 folks, ANWRs, the boroughs, the State, we all need to sit down in some way to be able to put the names and 17 18 faces together and talk about the approach to some of 19 these things. I think it's an important thing and it 20 should be expressed. If we get an applicant, we try to say, well, you better make sure you've got an ANWR 21 22 permit or you need a DNR permit or you need some other 23 permit from BLM or something. 24 25 We're pretty diligent about making sure 26 we try to let the applicants know there's other 27 regulatory requirements and hurdles because I've been 28 to a Big Game Services Board meeting before and 29 sometimes we're not even welcome to those things. 30 There's a lot of cowboy mentality with some of these 31 quides. I've been approached saying, you know, North 32 Slope Borough? We don't need no Borough permit, we've 33 got our ANWR permit. Those kind of things. They feel 34 you get one permit you're good to go. Those kind of 35 issues need to be overcome and that mentality needs to 36 -- I've just experienced it before. 37 38 I'll carry it MR. MATHEWS: Yes. 39 forward and see if we can get a more clear 40 understanding of all this. Again, you have different avenues of addressing this as a Regional Council letter 41 or annual report. But, yes, I've heard this concern 42 43 elsewhere. What is the coordination between these 44 different agencies and organizations involved. So I'll 45 carry that forward and see if we can get a clearer 46 understanding. 47 48 CHAIRMAN BROWER: Thank you, Vince. 49 Any other questions for Vince. 50

MR. OOMITTUK: Yeah. This is Point 1 I just had one more. I don't know if I heard 2 Hope. 3 Gordon earlier, but regarding the moose in Unit 26B. 4 Is Barter Island still allowed to receive two permits 5 from February 15 to April 15th to a drawing? Did you mention that the population is up at 82? I understand 6 7 in order to give them two permits there have to be more 8 than at least 50. I think that's what was stated last year or something. Now that there's 82 are they 9 10 allowed three permits or is it going to get higher or stay at the same at two permits for the Native Village 11 12 of Barter Island? 13 14 MR. MATHEWS: In answer to your question, I believe there's an understanding of 15 16 different levels of the amount of moose are there and that's why it's limited to two to that drainage. 17 So if 18 the population was to expand higher, and I don't know 19 what level that would be, then there could be 20 additional permits issued. 21 22 I think Gordon asked different questions about, you know, is this population emerging 23 in there or is it one that's just testing the area or 2.4 25 is it more than that. But right now at this level, to make sure that that moose population continues to be in 26 27 the North Slope area, it's going to be limited to two 28 bulls by drawing permit. 29 30 I wish Lee was here because I know he 31 pushed to increase that to three, but right now the response has been it would not be wise to go above two 32 33 bulls. 34 35 MS. PATTON: Mr. Chair and Council. Ι might add too.... 36 37 38 MR. OOMITTUK: All right. Thank you. 39 40 MS. PATTON:that Lee Kayotuk and other residents of Anaktuvuk Pass had reached out both 41 42 to Gordon Brower and OSM because there was only one 43 moose harvested and had some difficulty due to weather. 44 Had really appreciated the response of Arctic National 45 Wildlife Refuge manager and staff. 46 47 Hollis Twitchell was very engaged in 48 those communications with the community to be able to 49 extend that moose hunt season for additional 50

Page 203 opportunity for people to be able to get out. They do 1 2 have to travel quite a ways to reach that destination. 3 4 So Lee has been very engaged with this and really appreciate Gordon responded right away with 5 his cell phone he has on him when he's working and on 6 7 travel and then really appreciate the response of the Refuge to turn around and have an extension to the 8 9 season for the community there. 10 11 MR. OOMITTUK: Okay, thank you. So OSM 12 is the Office of Subsistence Management? 13 14 MS. PATTON: Yes, that's correct, 15 Steve. Sometimes there's actions that are taken by the 16 Federal Subsistence Board out of season. Those are 17 called special action requests. In a lot of cases the 18 Refuge or Park Service, the Federal land managers, have 19 what's called a delegation of authority letter that gives them a range of flexibility for the manager to be 20 able to make those decisions in season. 21 2.2 23 That's what happened here, was the community reaching out and saying the weather didn't 2.4 25 allow us to access those moose during the season, if they could have an extension to have some more time for 2.6 27 effort to reach that moose population. So that's what 28 the Refuge did with their authority to extend that 29 moose season beyond what's on the reg books there. 30 31 CHAIRMAN BROWER: Thank you, Eva. 32 Thank you. 33 MR. OOMITTUK: 34 35 MR. MATHEWS: Okay. I will go on mute 36 and I appreciate your patience and we'll leave it at 37 that. 38 39 CHAIRMAN BROWER: Thank you. I quess 40 we'll move on to the next item. Barrow Field Office. 41 MS. PATTON: Mr. Chair and Council. 42 43 really wish we could have had Ernest Nageak and Uinnig 44 Ahgeak here with us today. As you know, they both work for the Barrow Field Office. Uinnig is a fish and 45 46 wildlife biologist for the Field Office. As Randy noted, she spent a couple seasons working on those 47 research projects with Randy and she could have shared 48 49 her experiences as well. It is still kind of the field 50

season and they do a lot of education outreach programs 1 and migratory bird surveys. I know both of them have 2 3 been quite busy and unfortunately weren't able to join 4 us here today. I did call and leave a message. 5 6 CHAIRMAN BROWER: Thank you. We'll 7 move down to Bureau of Land Management. I don't know 8 if they jumped the line earlier or if this is a different.... 9 10 11 MR. OOMITTUK: Mr. Chair. 12 13 CHAIRMAN BROWER: Go ahead, Steve. 14 15 MR. OOMITTUK: I just have one 16 question. This is the U.S. Wildlife Service Barrow 17 Field Office, Ernest Nageak, is that what you're 18 saying? 19 20 MS. PATTON: Yes, correct, Steve. Ernest Nageak is the Native liaison for the Barrow 21 22 Field Office. They have an office right here. They've been based here for quite some time. A lot of their 23 focus is on migratory bird research and monitoring 2.4 25 programs. They also have amazing youth and educational programs for students where they're out in the field. 26 27 Uinnig has a fisheries degree. She went through the 28 ANSEP program and she is a fish and wildlife biologist 29 based here in Barrow. 30 31 CHAIRMAN BROWER: Thank you, Eva. 32 33 MR. OOMITTUK: Yeah, because the reason 34 I -- you know, the concern was brought up to me earlier today by Jack Schaefer about a bunch of dead birds by 35 36 Cape Thompson on the murres. We had over 300,000 that 37 nest over there and 600,000 at Cape Lisburne. There's 38 been some articles, recent things that came out. You 39 know, there was a vessel that went up there recently to 40 check on these and I guess they're doing some research on why they're finding so many dead birds in the Cape 41 Thompson area. They're finding out starvation because 42 43 the warmer season. 44 45 So they have some reports. I was just 46 wanting to see if any of the wildlife on the North 47 Slope knows anything about that, if anybody was there. I thought Ernest, but I guess they're not there. The 48 49 vessel Tiglax is sailing up Cape Thompson for the first 50

Page 205 time in 20 years. With the warmer waters I guess 1 they're doing research what the murres eat. When they 2 3 dive into the warmer waters they have to go further 4 down and they're not reaching their food supply. 5 6 The Point Hope people we like to eat 7 murres. They're good eating, but we don't eat them very often, but we collect their eggs usually end of 8 June, first part of July. Like I said, we have 300,000 9 10 that nest at Cape Thompson and 600,000 at Cape Lisburne. 11 12 13 I was just wondering if they had any 14 This is recent news that I just received information. 15 today and there were some concerns and are the North 16 Slope Borough Wildlife looking into that. I was hoping 17 Craig George was there or somebody from the North Slope 18 Borough Wildlife or Taqulik Hepa. 19 20 MS. PATTON: Through the Chair. Yeah, Steve, we did have some staff on this morning. 21 I know 22 they indicated they were pretty busy, so were trying to juggle meetings and other work. I don't know if we 23 have them on at this time. Because the Federal 2.4 25 Subsistence Management Program doesn't directly address migratory birds often we don't have those specialists 26 27 at the meeting, but I will relay your observations and 28 concerns to the Migratory Birds Office and have folks 29 get in touch with you. 30 31 You had mentioned Jack Schaefer. Is he 32 with the tribal council now or the city council at 33 Point Hope? 34 35 MR. OOMITTUK: Yeah, he's on the tribal 36 council. 37 38 MS. PATTON: I'll get back to you and touch base with Jack Schaefer and I'll check in with 39 40 the North Slope Borough folks as well too and let them know your report here and interest for more 41 42 information. 43 44 All right. MR. OOMITTUK: Thank you. 45 46 CHAIRMAN BROWER: Thank you, Steve. So 47 we're done with the Barrow Office. Are we back to BLM? 48 49 MS. PATTON: Mr. Chair and Council. We 50

Page 206 did bounce our BLM report up early yesterday. We still 1 do have Tim here if there's any further questions for 2 3 BLM, but he did provide his report and update 4 yesterday. 5 6 CHAIRMAN BROWER: Thank you, Eva. 7 Special action updates if any. 8 9 MS. PATTON: Mr. Chair and Council. 10 For this region there haven't been any special action updates other than the extension to the moose season 11 which was handled through the Refuge office. 12 13 14 CHAIRMAN BROWER: Thank you for that. 15 OSM. Josh. 16 17 Good afternoon. MR. REAM: For the record, this is Joshua Ream, anthropologist with OSM. 18 19 Also serving as the leadership team member here at your 20 meeting. 21 22 I just have a few updates for you. 23 Some of our staffing updates as well as some regulatory updates. We already touched on some of those. I want 24 25 to make sure you're aware of what's happening with the 26 final publication of the rule for the recent wildlife 27 actions. 28 29 We did have one fairly large departure. 30 Our Assistant Regional Direct Gene Peltola, Jr. left 31 his position to become the new Regional Director for the Bureau of Indian Affairs in Alaska. So he will be 32 33 serving in that capacity on the Federal Subsistence In the meantime, Tom Doolittle is serving as 34 Board. 35 the Acting Assistant Regional Director. 36 37 We did also have a new arrival. Greq Risdahl has started as the new Fisheries Division 38 Supervisor at the Office of Subsistence Management. 39 He 40 received his bachelor's of science in wildlife biology with a minor in anthropology from the University of 41 Montana. He has a master's of science from Montana 42 43 State University in wildlife and fisheries management. 44 45 Greg previously worked for OSM as a 46 wildlife biologist. He has served as Deputy Refuge Manager at Tetlin National Wildlife Refuge and most 47 48 recently at the Izembek National Wildlife Refuge as its 49 manager. Over his career he has worked in both 50

Page 207 wildlife and fisheries management, so we're excited to 1 2 have him on board. It's been some time since we had a 3 supervisor of the Fisheries Division. 4 5 We do have a number of vacancies still 6 One of those being the Anthropology though at OSM. 7 Division Supervisor. Paperwork has been submitted to 8 the Alaska Regional Director of the U.S. Fish and 9 Wildlife Service for approval to recruit to fill this 10 position and we're waiting on those authorizations. 11 12 We're waiting on a staff 13 The paperwork to hire the position has anthropologist. 14 been approved and is currently with Human Resources for 15 publication. 16 17 A fisheries biologist. The position 18 posted on USA Jobs recently and Tom Doolittle has 19 received a list of qualified applicants to consider for 20 hiring. And an administrative assistant, but OSM has not been authorized to fill this vacancy. 21 2.2 23 So the 2018-2020 Federal wildlife regulations that we spoke a bit about at the beginning 2.4 25 of the meeting, the regulatory year began on July 1st of 2018, but the changes to the regulations based on 2.6 27 the Federal Subsistence Board's actions in April have 28 not yet been published in the Federal Register. Those 29 changes are therefore not in effect until this is 30 published and we're anticipating that this should 31 happen hopefully in September. 32 33 This has two specific consequences for 34 the Federal Subsistence Management Program. First, modifications to regulations made in the April board 35 meeting did not take effect on July 1st as intended and 36 37 will not take effect until the Federal Register notice 38 is published. 39 40 For example, the new definition of bear 41 bait adopted in Wildlife Proposal 18-51 does not yet exist or the C&T for deer in Units 1 through 5 has not 42 43 yet been expanded to all Southeast residents as 44 authorized in the adoption of WP18-02. 45 46 Second, any wildlife actions that 47 resulted from Board approval of temporary wildlife 48 special actions last regulatory year expired on June 49 30th. 50

Page 208 However, the Federal Subsistence Board 1 2 has issued several temporary delegation of authority 3 letters to authorize the land managers in particular 4 areas to enact certain wildlife regulatory 5 actions adopted by the Board in April of 2018. Those are the ones that have not yet published. These 6 7 temporary delegation of authority letters were issued 8 to the following in-season managers and will expire when the new wildlife regulations are published. 9 10 11 For the Craig Ranger District of the 12 Tongass National Forest Unit 2 deer to implement WP18-Thorne Bay Ranger District also in the Tongass in 13 01. 14 Southeast for Unit 2 deer. Yakutat Ranger District 15 also in the Tongass for Unit 5A moose. To the 16 Superintendent of Wester Arctic Parklands Unit 23 caribou in the Noatak National Preserve. This is the 17 18 implement the partial closure adopted in WP18-46 as 19 modified. And then to the Anchorage Field Office Manager of the BLM for Unit 23 caribou in the Squirrel 20 21 River Drainage to implement partial closure adopted in 22 WP18-46 as modified. 23 2.4 I did see a press release come through 25 my email yesterday that these managers have implemented their authority to close that portion of Unit 23 until 26 27 the final rule is published. If there's any questions, 28 I'd be happy to try to answer them. 29 30 Thank you. 31 32 CHAIRMAN BROWER: Any questions for 33 Josh. I'm sorry, I was responding to a Nuiqsut thing 34 here. 35 36 (No comments) 37 38 MS. PATTON: Mr. Chair and Council. While there's a pause I'd just like to reiterate again, 39 40 as Josh mentioned, since the Federal Register has not been posted yet and we had talked about this yesterday 41 42 and I had handed out this draft informational flyer and 43 how to get information out to the communities. Once 44 the Federal Register does post, the hunting permit requirement registration permit for hunting caribou in 45 Unit 26A will go into effect. 46 47 48 This is a transition period, a very new 49 thing for folks here, so it's going to take some time 50
Page 209 to get that word out. So that's not in effect now, but 1 2 when that Federal Register notice does go into effect 3 permits will be required for the hunting of caribou on 4 Federal lands in Unit 26A. It's the same permit as the 5 State is issuing, so people would get that permit through the State office and through Carmen here in 6 7 Barrow. 8 9 Thank you. 10 11 CHAIRMAN BROWER: Thank you, Eva. 12 13 MR. NEAKOK: Chairman, if I can. 14 15 CHAIRMAN BROWER: Go ahead, Fredrick. 16 17 MR. NEAKOK: Along with the permitting requirements are individuals going to be required to 18 19 get a hunting license for that as well? In certain 20 areas if you choose to go fishing you need a fishing license and a king stamp. Then if you do hunt 21 22 waterfowl, you've got your hunting license and then you've got your duck stamps. Whenever I do my PFD I do 23 get my hunting, trapping and fishing license should I 2.4 25 choose to go fishing or hunting in other areas. Τs 26 that something going to be required along with these 27 permits? 28 29 MS. PATTON: Mr. Chair and Council. 30 Thank you for asking that, Fredrick. Yes, it's often one of the questions that's asked. Currently a hunting 31 license is required for all hunters, whether Federal 32 33 subsistence hunters or hunting under State regulations. 34 So that's a requirement that's in place already. Getting this new registration permit a person would 35 36 have to have a hunting license to get the registration 37 permit. 38 39 The registration permit itself is free. 40 However, there is a cost for a hunting license, but that's a regulation that's been in place for a long 41 time, both under State and Federal subsistence 42 43 regulations. It will be an extra step to get permits 44 on top of a hunting license and many people don't have 45 access to internet or computer. So how we can best help support people. 46 47 48 Again, the registration permit came 49 from the communities as well to have a better 50

Page 210 understanding of what the subsistence harvest is and 1 the needs are. So thank you for that question. 2 That's 3 something we can also put in the informational flyer is 4 kind of the basic background information for current 5 regulations. б 7 Thank you. 8 9 CHAIRMAN BROWER: Having said that, I'm 10 going to find out. Is it on Federal public lands for subsistence user mandatory 11 12 to have a license to do their subsistence activities 13 now? 14 15 MR. REAM: Yes, sir, I believe that is 16 the case. Anyone hunting wildlife in Alaska whether 17 you are a resident or a nonresident must have a license 18 from the Alaska Department of Fish and Game. Now there 19 are various ages that you don't have to have it. Ι believe they just changed it to 18, up until 18 and 20 then over a certain age you have your senior license 21 22 you only have to get one and I think that's 60. 23 2.4 MS. PATTON: Yeah, over the age of 60 25 and that is free. You get one that stays with you and it's free. I know it's confusing sometimes when you 2.6 27 have this overlap between the Federal subsistence 28 regulations and there's still the requirement for all 29 hunters over the age of 18 to have a hunting license issued by the State of Alaska even to hunt under 30 31 Federal subsistence regulations. 32 33 CHAIRMAN BROWER: Yeah, I mean that's 34 something that you guys really need to talk more about 35 I would think. I guarantee you there's probably two or 300 people that do the subsistence and their 36 37 requirement is they're indigenous people doing their 38 stuff and got to realize that mentality exists. I do 39 try to up my hunting license when I'm doing stuff, but 40 there are times I've never had a hunting license since 41 I was a kid and I did large-scale hunting because 42 nobody ever told me. 43 44 Those kind of things that people have a 45 mentality as we have the right or the indigenous people's right to hunt on these lands that we've 46 47 existed on and why should somebody else come over here 48 and tell me otherwise. There's that mentality, so you 49 guys need to realize that. 50

Page 211 MS. DAGGETT: This is Carmen Daggett 1 2 for the record with Alaska Department of Fish and Game. 3 I just want to make a couple clarifications in regards to the permits too. When you're talking about getting 4 5 your hunting license, you don't need a hunting license until you turn 18. However, the permits are under kind 6 7 of different age brackets and if you're over the age of 8 10 you would need your own permits for big game. So I just want to make that clarification. 9 10 11 If you're under the age of 10, you 12 would be hunting on another adult's permit and you would be reporting what you got underneath their permit 13 14 or whatever, but if you were over 10, then you would be 15 on your own permit. 16 17 If you were an elder, you would be 18 eligible for that permanent hunting license, but you do 19 have to apply for that and you also need a permit. Even though the permit costs you nothing you still 20 should get one. So just to clarify on those. 21 22 23 MR. NEAKOK: Mr. Chair, if I could. 24 25 CHAIRMAN BROWER: Yeah, go ahead. 26 27 MR. NEAKOK: Another thing with these 28 permits. You know, some of us grew up traveling the 29 land with our parents and our grandparents and the location requirement and our GPS is usually in our 30 31 head, you know. Not everybody carries a GPS with the digits or the longitude and latitude. Just as a 32 33 reminder. 34 35 MS. DAGGETT: That's an excellent 36 comment, Fredrick. We're aware of that and when people 37 report on their RC907 permits where they're hunting, we don't require GPS coordinates. Most of the time when I 38 take reports from people the description is something 39 40 along the lines of five miles upriver from the village 41 of wherever they're hunting or 15 miles east of wherever they're living or something like that or a 42 43 drainage listed, some physical feature. We're aware 44 that people don't always have GPSs with them and 45 there's ways to deal with that issue. That's a good 46 point. 47 48 CHAIRMAN BROWER: Any other questions 49 for OSM. Go ahead, Esther. 50

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MS. HUGO: I notice that this is permit 1 2 regulations for residents of Unit 26A and that's where 3 we are and I just want to say good luck. I will get 4 home and let them know they need to get these permit 5 regulations, but like Gordon said, I never carried a hunting license when I'm out there because my mom and 6 7 my dad didn't have to have that. So I never did up to 8 this day. So this is something that we need to pass on 9 at my home and I know how well it's going to go. 10 11 MS. DAGGETT: Thank you for your 12 comments, Esther. As I mentioned before when I gave my presentation on the RC907 permits that I do plan 13 14 personally to travel to every one of the villages and 15 try to get information out to people. I appreciate any 16 help that you guys can give in helping to educate people about that. The idea is to not make criminals 17 18 out of people. The idea is to get information about 19 harvest. That's where we're going with the RC907 20 permit. 21 22 CHAIRMAN BROWER: Well, I very much didn't like that comment, don't want to make criminals 23 out of people. We've never been criminals ever. 24 We 25 live off of the land the way that God put us on this land to do. We subsist. We don't commercialize it. 26 27 We live on the land. I just don't like that statement. 28 I think that it's important to talk about it and work 29 together about it, but limit the rhetoric about we 30 don't want to criminalize anybody. 31 32 To me, I just think that's sending the 33 wrong message and walking into an argument. There are 34 people who 35 are going to stand up adamantly and say in uncertain terms that language is too harsh. We should be working 36 37 in conformance with existing law. Those kind of 38 language is I think palatable. If you start to talk 39 about criminalizing people, yeah, you might have 40 somebody turn around and walk out or put you in a 41 position with heated dialogue. So I just want to make 42 you realize. 43 44 Do I need a hunting license to catch my 45 whale, my bowhead whale? When that's a Federally mandated indigenous right to subsist? Those are the 46 47 things that you need to realize when you're dealing 48 with the indigenous people that we are connected to 49 these resources different than any other place. We 50

Page 213 have a customary and traditional use determination. 1 2 3 But I certainly do agree that we need 4 to talk about it in order to look at the level of 5 harvest and make everybody productive in doing some of 6 these things. Thank you. 7 8 MR. NEAKOK: Mr. Chair, if I could. 9 10 CHAIRMAN BROWER: Yeah, go ahead, 11 Fredrick. 12 13 MR. NEAKOK: Another issue with 14 purchasing a hunting license some of the economies in 15 some of these villages there's almost -- there's very 16 few jobs. Having to purchase a license when a lot of people rely heavily on the PFD and regional or village 17 18 corporation income, it's just another strain on a lot 19 of the people in Alaska. Not just on the North Slope, but everywhere. Not everywhere is as fortunate as the 20 North Slope. 21 22 23 Thank you. 24 25 CHAIRMAN BROWER: Thank you, Fredrick. 26 Any other questions to OSM. 27 28 Joe from Native Village. 29 30 MR. LEAVITT: What I don't like.... 31 32 MR. OOMITTUK: This is Point Hope. 33 Were you calling on somebody, Gordon? 34 35 CHAIRMAN BROWER: Yeah, Steve, I've got 36 Joe and then I'll go to you if you're up next. 37 38 MR. LEAVITT: Okay. I just wanted to 39 comment on this one because us people hunting all these 40 years it's our basic human right to subsist. You've 41 got to remember that. That's what somebody told me and I still believe that. 42 43 44 Anyway, when you get a 10-year-old and 45 you want him to have a permit, I think that is totally 46 wrong. It should be set at 18 or 16. That is totally 47 wrong. You're attacking our children. If they get a violation when they're young, it's going to stay with 48 49 them for a while. You're offending that person at such 50

Page 214 a young age. That is totally wrong when a 10-year-old 1 has to have a permit. It should go with the family. 2 3 To me that is totally wrong. It's way too harsh. 4 That's what I just wanted to comment on. To me it's 5 totally wrong. I just wanted to say that. б 7 Thank you. 8 9 CHAIRMAN BROWER: Steve. Thank you, 10 Joe. You're up next, Steve. 11 12 MR. OOMITTUK: Thank you. I agree with 13 Joe and I agree with Gordon. I've never had a hunting 14 license. I caught my first moose about 30 years ago. 15 Never caught a moose before. Here it was in July. We 16 don't see moose in our area. There's a lot of fires 17 and the moose come to the west. I caught this moose 18 and I cut it up and since it was my first moose I gave 19 it all away. 20 21 I was hanging the skin to dry so I 22 could give it away too and a game warden came by. This 23 was like '83, '84. He started talking to me, hey, you got a moose. I said yeah. He asked me where I caught 24 25 it. Oh, just down the road there. And he asked me what did you do with the meat and I told him I gave it 26 27 away because it's my first one. I had maybe a couple pounds in my freezer and he took it away from me. He 28 29 said it's not moose season. You're not allowed to hunt moose. He took my skin. He took my meat, that little 30 31 piece of meat. I was going to give it away. Then I 32 got charged. I never hunted a moose again after that. 33 34 I've hunted most of my life without a license. Like you said, we subsistence hunt. We hunt 35 when the animals are here. Back in the days when they 36 37 were saying we had to hunt ducks at a certain time. 38 That's what it feels like. They were arresting all 39 these people that were hunting ducks because it's not 40 duck season. It almost feels like we're still in that time and era. We have lived off the land and the ocean 41 since time immemorial. We hunt when the animals are 42 43 here. They usually come at a certain time, but we're 44 seeing differences in migration times. 45 46 But putting a hunting license on a kid, you know, 10 years old, I mean -- you know, we live in 47 48 such a different time and era, but the majority of the 49 people with the high cost of living, the high cost of 50

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transportation, the high cost of fuel, we still rely on 1 2 our food source. If we're having to pay for a hunting 3 license even puts more of a burden and then have to pay 4 for our kids' license, our grandkids. 5 6 I agree with what Gordon and Joe said. 7 I thought we had a subsistence right to hunt animals 8 when they're there. There was no law. We're subsistence hunters. 9 Thank you. 10 11 CHAIRMAN BROWER: Thank you, Steve. Т just want to add one little thing and I won't dwell on 12 13 it any further. I attended the ICC, the Inuit 14 Circumpolar Conference in July over here. One of the 15 themes in the Utgiagvik Declaration and it goes to the 16 U.N. and because it is an internationally recognized 17 forum one of the things that everybody here has kind of 18 expressed when you're dealing with indigenous people is 19 food security issues and to be able to manage to our 20 own recourse, our harvesting and our traditional use of these resources. 21 2.2 23 I don't know how the State or the 2.4 Federal government can categorize us or clump us 25 together when they have mechanisms in place to recognize minorities. When the black man is a 26 27 minority, the predominant race being the Caucasians and 28 then filtering down and then there's preferences 29 afforded those by affirmative actions based on 30 minorities. 31 32 I learned something in ICC because they do a census on just the Inuit. Not the Indians, the 33 34 Athabaskans and other races and stuff, just the Inuit 35 population in Greenland, Canada, Alaska. I learned that we are 168,000 in the entire world where there are 36 37 38 millions and millions of black people, white people and 39 I couldn't comprehend almost that we're practically 40 bordering extinction if you look at the amount of population of other races. 41 42 43 It seems to me not just ANILCA but 44 affirmative action and those kind of laws that create 45 preference treatment and including the indigenous people's rights that's now protected and affirmed now 46 eight times these rights in the U.N., affirmed eight 47 48 times in the United Nations, which the United States is 49 a signatory to that among the world leaders about these 50

Page 216 Still we're being managed that we're the same 1 rights. and should be afforded the same as the rest of the 2 3 population of the United States or Alaska. 4 5 There's a lot of things here and I know we can't solve these issues here, but it's worth 6 7 expressing some of these things that are out there. Ι 8 am very much happy and elated that that tribe somewhere between Anchorage and Fairbanks, I forgot the tribe's 9 10 name, it's Aetna or something like that, Secretary Zinke gave them a Memorandum of Understanding to 11 develop their own management of their resources to give 12 them the right to do their own permitting tribally 13 14 under those kind of scenarios. 15 16 So there's different kinds of things in I would heavily advocate for that in the 17 the works. 18 interim until the United States wakes up a little bit 19 more about what their obligations are under the U.N., 20 which they're signatory to and affirmed already eight times in the U.N. about these rights. 21 22 23 I can go on and on and on and Anyway. 24 on, but I just get plumb full of these kind of things 25 in my head and I get afraid for our children and for our people that it's hard to reach them in some of the 26 27 most remote places on the North Slope and the limited 28 Like everybody says, they're already internet access. 29 having a very hard life. There's no way you could 30 retire in Anaktuvuk. People have to work and provide 31 every day. 32 33 If I keep talking, I know I'm going to 34 be here until 5:00 because I get too long-winded on 35 some of these. I'll yield back the remainder of my time. 36 37 38 Go ahead, Josh. 39 40 MR. REAM: Thank you, Mr. Chair. Just to respond to Steve's question about the Unit 23 41 42 closure I believe is what he was referring to. It was 43 not rescinded. In fact, the Federal Subsistence Board 44 approved it into permanent regulation. The only thing 45 we're waiting on is that final rule to be published. In the meantime, the managers from BLM and Western Arctic 46 Parklands have implemented their delegated authority to 47 48 close that area. So, Steve, that limited area in the 49 Noatak, the Eli, the Aggie and the Squirrel River is 50

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			Page	217
1 2	currently closed.			
2 3 4 5 6 7	Steve?	Thank you.		
		CHAIRMAN BROWER: Did you get that	,	
, 8 9		MR. OOMITTUK: Yeah, thank you.		
10 11 23 45 67 890 12 34 567 890 12 33 33 33 33 34 44 44 44 44 45 67 890	CHAIRMAN BROWER: I've got one little question before I move on and I think this is the last thing before we look at future dates. I look in these two books and the controlled use areas differ from State and Federal. How do those mix? And I thought there were in my mind I thought we had moved to codify the Noatak Controlled Use Area provisions and move them to the Anaktuvuk Controlled Use Area and make it the same more restricted to I think all uses in those controlled use areas.			
	controlled use a to talk in agree me just say it. evidence that th in Anaktuvuk Pas these controlled migration moveme	I just want to hear because it better opportunity to define a area if it were either State or Fed ement to look at these areas for There's a preponderance of the he caribou is the number one food s ss, that it requires special action d use areas to afford the uninterru- ent of the caribou to where the brmally found and harvested by the	eral let ource in	
	Only residents in area of influence to subsistence in those areas to in	That may warrant different a tier level for the community its in that area of that village in tha ce have from July till October limi in a defined area for all species is limit the absolute interruption of restrial mammal migration events.	t ted	
	controlled use a work on a propose much of that are the concern for through is on St	MS. PATTON: Mr. Chair. I can answ tory of the Council's work on that area. The Council did, you're corr sal to the State Board of Game becar ea to the north of Anaktuvuk Pass with the migration of the caribou coming tate lands. There is some controlled ional Park Service lands.	ect, use here g	

Page 218 The Council had worked a couple of 1 2 cycles to submit a proposal to expand the closure and 3 also expand the animals that people could fly in to 4 hunt in that area, so requesting it to be closed for 5 hunting of other animals too during that sensitive 6 migration time period. 7 8 The Council had worked closely with the 9 community of Anaktuvuk Pass as well. Ultimately, James 10 Nageak was serving on the Council the first time the Council was working on this and the community had 11 12 decided to hold off on that proposal. I know the 13 second time around again working with the community of 14 Anaktuvuk Pass they were actually working -- we had generated kind of a template from the Council and the 15 16 community of Anaktuvuk Pass was working a little 17 further on perhaps expanding both the timeframe and 18 also the boundaries. 19 20 Ultimately there was a consensus in the community of Anaktuvuk Pass. Esther has spoke to this 21 22 before that because the caribou haven't been coming 23 through the community was looking at other options that 2.4 they may have, which might include themselves flying in 25 to hunt caribou since they weren't coming near the 26 community. So there wasn't a proposal that was 27 submitted in the last round from Anaktuvuk Pass either. 28 29 It's still up to the community and the 30 Council in the next State Board of Game proposal 31 process if they wish to pursue that Unit 23 controlled 32 use area on the State lands. As we had talked about 33 yesterday, the Council can revisit much more targeted 34 ideas for how to address on Federal lands the needs of Anaktuvuk Pass and the wildlife proposal cycle is 35 coming up again this winter. So these are things we 36 37 can begin to work on with staff how we might be able to 38 address it on Federal lands. 39 40 CHAIRMAN BROWER: Thank you, Eva, for 41 the reminder and remembering as far back as that because you were starting to pull some of my Rolodex 42 43 out and I remember some of that dialogue. James was 44 around at the time and was leading and spearheading 45 some of the efforts to how the controlled use area 46 might be expanded on top of that. 47 48 I think the North Slope Borough 49 Wildlife Department put a little bit of fear of God 50

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into that as well. If you start fiddling with that 1 controlled use area and open it back up, the State may 2 3 just take it all away or something to that effect and 4 those kind of things. That's what I kind of remember. 5 MS. PATTON: Mr. Chair and Council. 6 7 There was some discussions around concerns and State 8 staff could speak more to this. The Board of Game does function a little bit differently than our Federal 9 10 Subsistence Board does, so if a proposal goes in to open up consideration of an area, the Board may make 11 other decisions that maybe are not in line with the 12 request, but it opens up the discussion. 13 14 15 I know there was concern for folks that 16 had worked on that controlled use area at the beginning 17 and felt they'd gotten some pretty good headway and 18 making some protections there were I think genuinely 19 concerned that opening it back up again might pose some 20 So I don't think it was an arbitrary discussion risks. that they had on those concerns. 21 2.2 23 CHAIRMAN BROWER: Thank you. I think 2.4 it's still important to continue that dialogue. 25 certainly believe all the communities should have an area of influence that has much more rigorous 26 27 restrictions surrounding a village area of influence. 28 In the Borough's village comprehensive plans it's 29 described as "immediate boundaries outside of the 30 village district boundaries that support the 31 contemporary traditional and subsistence uses that provide for the community." That's the definition 32 33 around the area of influence for a community in the 34 comprehensive planning. 35 36 I encourage all those that do land 37 management in Federal lands look at these comprehensive 38 plans that are comprehensive plans for villages. 39 They're new and they've been developed. Anyway, I 40 think they're important. 41 42 Any other questions for OSM, for that 43 matter ADF&G folks that are sitting here. Did you want 44 to provide additional feedback, Carmen, or are you 45 qood? 46 47 There was just a few bits MS. DAGGETT: of information I thought I would add. I wanted to make 48 49 it clear that there's a \$5 low income license that's 50

Page 220 available to people if they need it, so we make those 1 2 regularly available in addition to the regular hunting, 3 fishing, Duck Stamp licenses. 4 5 And you do not need a hunting license 6 until you're 18. I know there was some confusion about 7 that somewhere along the line there, but you don't need 8 a hunting license until you turn 18. 9 10 If there's any interest and thinking 11 about changing the age at which people might be 12 required to have a permit, there's a proposal process 13 to go through that on the State side of things and 14 maybe that's something you guys might want to talk 15 about as a constructive way to deal with that concern. 16 17 We're trying to do education and 18 outreach again about these permits. Right now we're 19 working with the laws that currently exist, so 20 therefore providing that information accurately to you is important. So those are the way they currently 21 22 exist, but if you wish to change them, you can try to 23 do that through the Alaska Board of Game. 24 25 Thank you for your guidance on 26 language. Duly noted. 27 28 CHAIRMAN BROWER: I've encountered it 29 myself on how you 30 phrase things. There's palatable ways and there's 31 other ways that just about spurs an argument. 32 33 Anyway, thank you very much. Any other 34 questions for OSM or forever hold your peace. 35 36 MS. PATTON: Mr. Chair, if I may. Just 37 a quick follow up again. On the Federal side, because this is very new and it's understandable people have 38 39 been hunting and following their traditional way of 40 life and the whole idea of a permit for hunting is a really new thought process and a challenge for people 41 42 because as you know people don't have access to 43 resources often to get these things and just outreach 44 and the communications of this is coming up and here's 45 the process. 46 47 It was supported by this Council and other Councils again in the interest of having a better 48 49 understanding of subsistence harvest and where. I know 50

Page 221 a lot of discussion from Anaktuvuk Pass to have 1 documented year after year just how important those 2 3 caribou are for the community. We've been limited. 4 You know, the harvest information comes from occasional 5 Subsistence Division community surveys, which are wonderful, but they're only able to happen every few 6 7 years. 8 9 As Esther noted in some of our past 10 meetings there's a lot of information missing for Anaktuvuk Pass to show year after year. The interest 11 12 of having the registration permit is an avenue to 13 report directly and which herd people are hunting from 14 and where. It certainly doesn't come from wanting to 15 regulate further. The interest was to better 16 understand subsistence harvest needs. 17 18 So this transition is going to move 19 forward in that spirit of how can we support folks in 20 getting that information so that we're aware of what the subsistence needs are and the needs of the 21 22 community. 23 2.4 Again, we're just starting and it's 25 understood that it's going to take time to reach out to folks and we want to hear your feedback and these 26 27 challenges that people are facing and how we might be 28 able to help with that. 29 30 Thank you. 31 32 CHAIRMAN BROWER: Thank you, Eva. Т 33 certainly agree. I think it's very palatable when we 34 know and there's a lot of expression made in the 35 counting, the census and we feel it because the periphery of those animals is not gracing the community 36 37 as much because it has contracted to such extent that 38 it's more difficult. 39 40 Other areas on the Slope is the same 41 thing. Right now I think we're being blessed 42 everywhere. I see Wainwright is harvesting. Just 43 about everybody is harvesting caribou. 44 45 So I think it's important the dialogue 46 to work because of the caribou decline issues. I think that's palatable that there needs to be a much more 47 48 effective way of monitoring and capturing the harvest 49 and once we do it from there and use that as its 50

Page 222 foundation I think going forward it will just start to 1 be more routine and easier to digest. That's my take. 2 3 4 Thank you very much, OSM. 5 б MR. REAM: Thank you. 7 8 CHAIRMAN BROWER: Item 12, future 9 meeting dates. 10 11 MS. PATTON: Thank you very much, 12 Council, for all of that feedback and discussion. We 13 will take that to heart and be working with you. 14 15 You'll find your meeting calendars on 16 Page 30 and 31. The Council had selected a tentative 17 date already for the winter 2019. Currently the North Slope in Utgiagvik on February 13th and 14th. This 18 19 Council likes to meet on Valentine's Day. So if those 20 dates work for you and your schedules, please let us know. 21 2.2 23 MR. OOMITTUK: Yeah, Point Hope, it 24 sounds good. 25 26 CHAIRMAN BROWER: I agree that's good. If we find something different -- it's months away. 27 28 It's hard to predict what's not going to work, but 29 those are always a for sure thing that we've met on 30 those dates. So, February 13 and 14 good enough. I 31 guess we can talk about the fall 2019 and the winter of 32 2019, right? 33 34 MS. PATTON: Well, it's helpful for us because all the Councils start selecting meeting dates 35 36 early on. We realize this is a whole year in advance, 37 but it gives us an idea so that we can schedule all 10 of the Council meetings during that fall window. 38 39 40 I might just note that this Council has 41 tended to alternate back and forth for the fall 42 meeting. We're meeting here in August right now prior 43 to fall whaling season and oftentimes the Council will 44 alternate back to after the fall whaling season. Т 45 might just mention we do seem to have a little more 46 challenges with fog at this time of year. I know for Lee Kayotuk getting out of Kaktovik the fog is really 47 bad frequently this time of year. For Point Hope too 48 49 and other places. 50

Page 223 CHAIRMAN BROWER: All right. 1 So what 2 do you think, October 22 and 23 good enough? 3 4 MS. PATTON: I'll just check with all 5 the Council how that works for your fall subsistence schedule and whaling captains in particular for whaling 6 7 season. 8 9 CHAIRMAN BROWER: Whaling is over by 10 that time in my books, October 22, October 23. Although we've had extended seasons from time to time, 11 12 but I fully expect that to -- October 6? 13 14 MR. NEAKOK: No. 15 16 MR. OOMITTUK: Sounds good. 17 18 CHAIRMAN BROWER: Okay, October 22 and 19 23 sounds good for 2019 next year's fall meeting. We 20 can confirm that in the winter of 2019. Call it good. 21 22 So Item 13, closing comments. Does anybody want to have a few closing comments. 23 I know we 24 did a lot of commenting. 25 26 MR. OOMITTUK: Yeah, Point Hope. 27 28 CHAIRMAN BROWER: Go ahead, Steve. 29 30 MR. OOMITTUK: I just want to thank 31 everybody for coming. It's been a good two days. Ι learned a few things and we had some good talks. It's 32 33 good to see that the char are getting strong in their 34 numbers as caribou are getting higher. Thank you, Eva, for all your hard work getting these meetings together. 35 36 I'm sorry I couldn't be there in person. Maybe next 37 year's weather will be better. 38 39 Thank you, guys. All have a great 40 August. September is around the corner. Our winter is 41 about here. Thank you. 42 43 CHAIRMAN BROWER: Aarigaa. Quyanaqpak. 44 Thank you, Steve, for bearing with us on the telephone. 45 46 MR. OOMITTUK: All right, Gordon. 47 Thanks. The chair is getting a little hard. I've been sitting for two days. Good they got cushions. 48 49 50

Page 224 CHAIRMAN BROWER: Yeah, sometimes I 1 2 think we should lay on the floor and put our mics on 3 the floor so we don't have to sit so long. 4 5 (Laughter) б 7 CHAIRMAN BROWER: Any other closing 8 comments from the Council. 9 10 (No comments) 11 12 CHAIRMAN BROWER: Hearing none. Item 13 14. 14 15 I so move for adjournment. MS. KIPPI: 16 17 MS. AHTUANGARUAK: I'd like to make 18 some closing comments. 19 20 CHAIRMAN BROWER: Nuigsut closing 21 comments go ahead. 22 23 MS. AHTUANGARUAK: It's very hard to 24 sit on the process and watch the changes that are 25 happening to our lands and water and not being able to provide effective discussions that allow our community 26 to have hope to continue to subsist into the future. I 27 28 think a lot of our process is checking off the box and it's very concerning that others that are at this table 29 30 with the various roles do not make it easy for us to 31 provide comments. 32 33 Giving the less than two seconds to get 34 onto the mic to provide a comment isn't very considerate especially when you're asking for comments 35 36 and provide comments yourself without allowing your 37 participants on the phone to communicate. 38 39 It is very difficult to watch these 40 changes because we are suffering these issues daily and 41 the communications are not coming anymore because it 42 feels like we are communicating on deaf ears. Our 43 efforts to try to protect our way of life are important 44 and our village is not a sacrifice zone for the 45 decisions of the administration that we live upon. We 46 deserve to have subsistence and continue our way of 47 life into the future regardless of the effort to permit 48 and change our lands and waters. 49 50

Page 225 I pray that these efforts to 1 2 participate in this process do not continue to cost all 3 of our people the hardship I'm feeling in my stomach 4 every day of these meetings. Every day trying to come and participate in this process knowing that there are 5 permits and processes that are going to continue to 6 7 change our way of life and we aren't effectively able 8 to prevent any of these issues. 9 10 Thank you very much. 11 12 CHAIRMAN BROWER: Thank you, Rosemary. 13 Thank you very much. You're always so well spoken. 14 Any other closing comments. 15 16 MS. HUGO: Mr. Chair. 17 18 CHAIRMAN BROWER: Esther. 19 20 MS. HUGO: I just wanted to say that I'm happy to be here on behalf of our community and I'd 21 22 just like to say we need to revisit the proposal WP18-57 and it should specifically be only in the 26A area 23 where we live and it doesn't include 26B or the 23 24 25 unit. 26 27 As for the collaring of our caribous, 28 because caribous don't talk, I would like to see some kind of a device that doesn't have that collar around 29 30 their neck. I mean I'm sure today's technology we can figure out some way of eliminating the collar and 31 putting a chip or, I don't know. Just some thoughts. 32 33 34 Thank you. 35 CHAIRMAN BROWER: Thank you, Esther. 36 37 Yeah, I think those are very important. We've seen the 38 struggle and even reports about caribou collaring and 39 its effects on caribou from time to time. Any other 40 closing comments. 41 42 MR. NEAKOK: If I could. 43 44 CHAIRMAN BROWER: Fredrick. 45 46 MR. NEAKOK: You know, rather than 47 maybe using collars maybe we can use ankle monitors just the same as we do some people. Maybe ankle 48 49 monitors might work. 50

Page 226 CHAIRMAN BROWER: Thank you, Fredrick. 1 2 All right. Any additional closing comments. 3 4 (No comments) 5 6 CHAIRMAN BROWER: If not, I'm going to 7 entertain Item 14. 8 9 MS. KIPPI: I so move to adjourn. 10 11 CHAIRMAN BROWER: Motion on the floor 12 to adjourn. 13 14 MR. NEAKOK: Seconded. 15 16 CHAIRMAN BROWER: It's been seconded. 17 All those in favor of adjourning signify by saying aye. 18 19 20 IN UNISON: Aye. 21 CHAIRMAN BROWER: All those opposed. 2.2 23 24 (No opposing votes) 25 26 MR. OOMITTUK: Everybody, goodbye and 27 thank you. 28 29 CHAIRMAN BROWER: We are adjourned. 30 Quyanaqpak, everyone. 31 32 MS. HUGO: See you, Steve. 33 34 MS. PATTON: Thank you, Steve. 35 36 (Off record) 37 38 (END OF PROCEEDINGS) 39 40 41 42 43 44 45 46 47 48 49 50

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