SEWARD PENINSULA FEDERAL SUBSISTENCE REGIONAL ADVISORY COUNCIL MEETING
PUBLIC MEETING
VOLUME I
Nome Mini-Convention Center Nome, Alaska March 11, 2020 9:07 a.m.
Members Present:
 Tom Gray, Acting Chairman Deahl Katchatag Ronald Kirk Lloyd Kiyutelluk Leland Oyoumick Charles Saccheus Elmer Seetot
Regional Council Coordinator -Tom Kron (Acting) Karen Deatherage/phone
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Page 2 PROCEEDINGS 1 2 3 (Nome, Alaska - 3/11/2020) 4 5 (On record) 6 7 ACTING CHAIR GRAY: If I could get 8 everybody to stand I'd appreciate it. Take your hat off. So I'm going to give the invocation. 9 10 11 (Invocation) 12 13 ACTING CHAIR GRAY: Thank you. Okay, 14 so I'm going to call the meeting to order so we're 15 official. And I get to be the guy running the meeting. 16 Louis is -- he called me from Ruby yesterday saying 17 they're stuck -- they're not stuck, they're actually 18 moving again but him and his brother and nieces and so on and so forth are driving snowmachines to Nome from 19 20 somewhere, and it's taken longer than they expected. So I get to run the meeting, I guess. And bear with me 21 22 I've run a lot of meetings but I haven't run this meeting in a long time. And if I step out of line you 23 24 can beat up on me a little bit be careful because 25 paybacks are.... 26 27 (Laughter) 28 29 ACTING CHAIR GRAY: Okay. So can we 30 get a roll call. I don't know who's going to do the 31 roll call. 32 33 MR. SEETOT: Region 7. Lloyd 34 Kiyutelluk. 35 MR. KIYUTELLUK: Lloyd Kiyutelluk here. 36 37 Number 2 is vacant. Number 3, Louis Green is along the 38 trail. Thomas L. Gray. 39 40 ACTING CHAIR GRAY: Yes, Sir. 41 42 MR. SEETOT: Deahl Katchataq. 43 44 MR. KATCHATAG: Here. 45 46 MR. SEETOT: Leland Oyoumick. 47 48 MR. OYOUMICK: Yep. 49 50

Page 3 MR. SEETOT: Elmer Seetot, I'm here. 1 2 3 Charles Saccheus. 4 5 MR. SACCHEUS: Here. 6 7 MR. SEETOT: Ronald Kirk. 8 9 MR. KIRK: Here. 10 11 ACTING CHAIR GRAY: So, Mr. Secretary, 12 do we have a quorum. 13 14 MR. SEETOT: Yes. 15 16 ACTING CHAIR GRAY: I'm just picking on 17 him. 18 19 (Laughter) 20 21 MR. SEETOT: Oh, okay, we have seven in 22 attendance, Mr. Chair. 23 24 ACTING CHAIR GRAY: Okay. It sounds 25 like we have a quorum. So I welcome everybody, thank 26 you for being here. So we're going to introduce each other and we'll start with Tom over here and come 27 around the table. 28 29 30 MR. KRON: Tom Kron, OSM. And Karen is not feeling well so I'm up here to help to be your 31 coordinator and make sure everything goes well so jump 32 33 on me if we have any problems. 34 35 Thank you, Mr. Chair. 36 37 MR. OYOUMICK: Leland Oyoumick. AKA 38 Boop from Unalakleet. 39 40 MR. SACCHEUS: Charles Saccheus, Sr., from Elim. Subsistence hunter and whatever, okay, 41 42 thank you. 43 44 ACTING CHAIR GRAY: So I'm Tom Gray, 45 Vice Chair and I think everybody knows me. 46 47 MR. SEETOT: Elmer Sectot, Jr., Brevig 48 Mission. 49 50

Page 4 1 MR. KATCHATAG: Doug Katchatag, 2 Unalakleet. 3 4 MR. KIYUTELLUK: Lloyd Kiyutelluk, 5 Shishmaref. 6 7 MR. KIRK: Ronald Kirk, Stebbins. 8 9 ACTING CHAIR GRAY: We're waiting on 10 you. 11 12 REPORTER: Oh, me, my name's Tina, I'm 13 the court reporter for this RAC. 14 15 MS. PETRIVELLI: Pat Petrivelli, BIA, 16 Anchorage. 17 18 MS. VOORHEES: Hannah Voorhees. T'm 19 an anthropologist with Office of Subsistence 20 Management. Good morning. 21 22 MR. WHITFORD: Good morning. My name 23 is Tom Whitford. I'm the Regional Subsistence Leader 24 for the Forest Service. I just came up here to see how 25 the National Forests are grown up here -- kidding. 26 27 (Laughter) 28 29 MS. KOELSCH: Jeanette Koelsch, 30 National Park Service, Nome. 31 32 MS. BRAEM: Good morning. Nikki Braem, 33 National Park Service, Nome. 34 35 MR. THOMPSON: Mike Thompson, National 36 Park Service, Nome. 37 38 MR. ASHENFELTER: Roy Ashenfelter with 39 Kawarek in Nome. 40 MR. HARRIS: Frank Harris. I'm a fish 41 42 biologist with OSM. 43 44 MR. ADKISSON: Good morning. Ken 45 Adkisson, National Park Service, Nome. 46 MS. DAMBERG: Good morning, Council 47 48 Chair and Council members. My name is Carol Damberg. 49 I'm the Regional Subsistence Coordinator for the U.S. 50

Page 5 Fish and Wildlife Service based out of Anchorage, 1 2 Alaska. Good to be here. 3 ACTING CHAIR GRAY: Okay, I think 4 5 that's everybody. I thank all of you for coming and 6 showing up and being part of this meeting. If anybody 7 has any concerns about where they're at on the agenda 8 or anything let us know and we'll fix it. I got a big 9 hammer that says fix it. 10 11 (Laughter) 12 13 ACTING CHAIR GRAY: So next thing is 14 review and adopt the agenda. So I'm going to go 15 through the agenda and we can do whatever. 16 17 So after review the agenda is election 18 of officers. 19 20 Review and approve previous meeting 21 minutes. 22 23 Reports from the Council members. 24 25 Chair's report. 26 27 Public and tribal comments on non-28 agenda items. 29 30 Board of Game proposal results. 31 32 Fisheries Program Information. 33 34 Call for Federal Fish and Shell 35 proposals. 36 37 FY19 annual report. 38 39 Agency reports. And there's a whole 40 list of agencies. 41 42 Future meeting dates. 43 44 And closing comments. 45 46 So one thing I would like to address before we move it is I suggest, because Louis' not 47 here, let's move the election of officers to the last 48 49 thing tomorrow. Louis said he's going to try and be 50

Page 6 here tomorrow. And, you know, just to be -- I don't 1 2 want to say fair, but why don't we put that before the 3 future meeting date, election of officers. 4 5 MS. DEATHERAGE: Mr. Chair. 6 7 ACTING CHAIR GRAY: Yes, who is this? 8 9 MS. DEATHERAGE: This is Karen 10 Deatherage, how are you guys? 11 12 ACTING CHAIR GRAY: Oh, you're here, 13 I'm sorry. 14 15 MS. DEATHERAGE: I'm on the phone and I 16 just want to make sure that things move through this 17 morning and I'd like to add a couple of recommendations 18 to the agenda with the Chair's permission. 19 20 Thank you. 21 22 MR. SEETOT: I'll make a motion first. 23 24 ACTING CHAIR GRAY: Well, let's make 25 the motion to adopt the agenda as revised after we get 26 done revising the agenda. 27 28 MS. DEATHERAGE: Mr. Chair. 29 30 ACTING CHAIR GRAY: Okay. We're doing 31 a little sideline thing here, go ahead, Karen. 32 33 MS. DEATHERAGE: I'd like to recommend 34 that we add the Norton Sound crab fisheries discussion for tomorrow, the 12th of March. Charlie Lean will be 35 36 available and hopefully Member Green will be on hand to 37 have that discussion. 38 39 And I'd also like to recommend that you add a climate change presentation by Rick Thoman, he's 40 with -- he's here in Fairbanks and he has an excellent 41 42 presentation where he'll focus on Norton Sound issues, and he is available to present by phone at 11:00 43 o'clock today. And he will call in, and with Frank 44 45 Harris' help, run a PowerPoint for that presentation after the Council member reports. 46 47 48 Thank you, Mr. Chair. 49 50

Page 7 1 ACTING CHAIR GRAY: Okay. I'm playing 2 catch up. Climate change and that's Rick who? 3 4 MS. DEATHERAGE: Yes, that's at 11:00 5 o'clock today. In the meeting book, Mr. Chair, there 6 is a report on Alaska's changing environment. It has a 7 lot of good information to help Council member's 8 understand what scientists are seeing on the ground in 9 Alaska. 10 11 ACTING CHAIR GRAY: Okay. So climate 12 change, Rick somebody. 13 14 MR. SEETOT: 11:00 o'clock. 15 16 ACTING CHAIR GRAY: 11:00 o'clock. 17 18 MS. DEATHERAGE: Rick Thoman and he 19 needs to present at 11:00 o'clock today or thereabouts 20 after the Council member reports. 21 22 ACTING CHAIR GRAY: Okay. Go ahead, 23 Tom. 24 25 MR. KRON: Yeah, Karen, this is Tom. 26 As of this morning, 8:00 o'clock, we had not received 27 anything from Dr. Thoman, so, again, if he's going to get us his presentation he'll have to do it soon. 28 29 30 MS. DEATHERAGE: Mr. Kron, through the Chair. I do have a copy of that, it was sent to Frank 31 Harris and myself at 7:38 this morning. If Frank could 32 check his email to see if he could download it that 33 34 would be super. 35 36 Thank you. 37 38 ACTING CHAIR GRAY: Okay. So you added 39 two things to the agenda. I moved the election of 40 officers. Is there any other items we need to add to the agenda or delete or whatever? 41 42 43 MS. DEATHERAGE: I would ask that you 44 delete the Board of Game update because I don't have 45 that information on hand, under old business. Again, this is Karen Deatherage. 46 47 48 Thank you, Mr. Chair. 49 50

Page 8 1 ACTING CHAIR GRAY: Okay. Any other 2 issues, things we need to change? 3 4 (No comments) 5 6 ACTING CHAIR GRAY: Is there a motion 7 to adopt the agenda as revised. 8 9 MR. KIYUTELLUK: So moved. 10 11 ACTING CHAIR GRAY: There's a motion, 12 is there a second. 13 14 MR. KIRK: Second. 15 16 ACTING CHAIR GRAY: Is there a question 17 -- any discussion. 18 19 (No comments) 20 21 MR. KATCHATAG: Question. 22 23 ACTING CHAIR GRAY: Question's called. 24 All those in favor of adopting the agenda as revised 25 say aye. 26 IN UNISON: Aye. 27 28 29 ACTING CHAIR GRAY: All those opposed, 30 same sign. 31 32 (No opposing votes) 33 34 ACTING CHAIR GRAY: Very good. Okay. 35 So review and approve previous meeting minutes. We must have meeting minutes in here, I'm going to give 36 37 you five or 10 minutes to review them and we'll come 38 back and either fix them or adopt them, whatever you 39 need to do. 40 41 (Pause) 42 43 ACTING CHAIR GRAY: Anybody see 44 anything that's out of line? 45 46 47 (Pause) 48 49 ACTING CHAIR GRAY: Yes. 50

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Page 9 MS. KOELSCH: Chair. 1 2 3 ACTING CHAIR GRAY: Yes. 4 5 MS. KOELSCH: This is Jeanette Koelsch. 6 I was at the meeting but I forgot to sign in. So I 7 don't know if I can be added to the minutes, or added 8 to the attendee list. 9 10 ACTING CHAIR GRAY: Yep. Yep. We'll 11 add you. 12 13 MS. KOELSCH: Thank you. Sorry, 14 sometimes I forget to sign in. 15 16 ACTING CHAIR GRAY: Okay. I didn't even 17 -- okay. 18 19 MR. KIYUTELLUK: Make a motion to 20 approve the agenda -- meeting minutes from October 21 meeting. 22 23 ACTING CHAIR GRAY: And adding Jeanette 24 to it. 25 26 MR. KIYUTELLUK: With Jeanette as an 27 addition to the attendance. 28 29 ACTING CHAIR GRAY: Okay. Is there a 30 second. 31 32 MR. SEETOT: Second. 33 34 ACTING CHAIR GRAY: Motion and a 35 second. Any discussion on the meeting minutes. 36 37 MR. SEETOT: Mr. Chair. 38 39 ACTING CHAIR GRAY: Yes. 40 41 MR. SEETOT: Correction on Page 5 under 42 my listing. It says Cape Dirk, it should be Cape York, 43 on Page 5. 44 45 ACTING CHAIR GRAY: Cape York. 46 47 MR. SEETOT: Yeah. Pretty much middle 48 of the page under my report. 49 50

Page 10 ACTING CHAIR GRAY: Cape York, Y-O-R-K. 1 2 3 MR. SEETOT: Fourth line down, it says 4 Cape Dirk, that's the only addition I see there, thank 5 you. 6 7 ACTING CHAIR GRAY: Anybody else have 8 any comments or corrections. 9 10 (No comments) 11 12 ACTING CHAIR GRAY: If not is 13 there.... 14 15 MR. SEETOT: Question. 16 17 ACTING CHAIR GRAY: Question's called. 18 All in favor of adopting the revised minutes say aye. 19 20 IN UNISON: Aye. 21 22 ACTING CHAIR GRAY: All opposed, same 23 sign. 24 25 (No opposing votes) 26 27 ACTING CHAIR GRAY: Okay. I hear that telephone thing dinging and beeping and stuff, do we 28 29 have somebody new on line. Karen are you still there? 30 31 MS. DEATHERAGE: Yes, I got dropped but 32 I'm back. 33 34 Thank you, Mr. Chair. 35 36 ACTING CHAIR GRAY: Okay. Is there 37 anybody else on the teleconference. 38 39 MR. BURCH: Good morning, Mr. Chair. 40 This is Mark Burch from the Department of Fish and 41 Game. 42 43 ACTING CHAIR GRAY: Very good. Thank 44 you for attending. 45 46 Okay, so now we're to Council reports and at this time each Board member will give a little 47 spiel about what they saw in the last year, or last 48 49 season. 50

Page 11 1 Tom. 2 3 MR. KRON: Mr. Chair. At some point we 4 need to do election of officers, we do that every 5 winter cycle. 6 7 ACTING CHAIR GRAY: So when we adopted 8 the agenda.... 9 10 MR. KRON: We're going to move it to 11 the end. 12 13 ACTING CHAIR GRAY:we moved it 14 down until tomorrow. 15 16 MR. KRON: Got it. Got it. 17 Understand. Remember. Thank you. 18 19 ACTING CHAIR GRAY: Yeah. So, Leland, 20 do you want to start us off. 21 22 MR. OYOUMICK: Good morning. I'm 23 Leland Oyoumick from Unalakleet. 24 25 Our year at Unalakleet was pretty good 26 except the weather was kind of cold. And we had lots 27 of people who were catching smelts and they're now 28 going after trouts up the river. 29 30 But the quota for moose was met. 31 32 I don't know, we had good fishing. 33 There was kings for once and it was nice. 34 35 Not much really, just -- I don't know, we got to look into trying to find where this cancer 36 37 stuff is showing up because our people are still 38 getting cancer and I really know -- I really think and 39 I really believe it's from the food they eat and all 40 the food they get is from the land. 41 42 So I don't have much else to say, but, 43 thank you. 44 45 ACTING CHAIR GRAY: Charles. 46 47 MR. SACCHEUS: Well, I'm from Elim. My 48 name is Charles Saccheus. 49 50

And I work -- usually work with the 1 2 Alaska Beluga Whaling Committee. And when we count our 3 beluga, Eastern Norton Sound usually have about maybe 4 36 to 50,000 beluga in the bay and from Bald Head, 5 Isaacs Point on down to Cape Darby, those beluga always come there every year and there's tons and tons of 6 7 beluga -- I mean tomcod and that's their main diet, 8 tomcod and shrimps. And every time we get beluga we open their stomachs and see what they eat. Most of the 9 10 time they have them little shrimps and tomcods. In 11 spring time when the herring come, those belugas go 12 after the -- they don't go after the herring, they just leave them alone, but they'd rather eat tomcod and 13 14 shrimps. But anyway our beluga, there's quite a bit 15 out in the bay when they count them. They never count them for at least five years. And the way I look at 16 17 it, every spring we see thousands of beluga right in 18 front of Elim when the ice go out and tomcod start 19 rolling in from Cape Darby. And there's quite a few 20 tomcod between Cape Darby and that Bald Head, this side 21 of Koyuk, that's where them beluga always hang out all 22 the time. The big males and females are outside and 23 the -- further inside, those animals, them beluga are pretty smart, they let their -- they stay on the 24 outside so the -- kind of watch for killer whales and 25 26 so -- and them young little grey ones, there's maybe 27 hundreds of them on the outside eating tomcod. Spring time they don't eat herring, they never, but they eat 28 29 -- they eat -- their main diet is tomcod and shrimps 30 and our beluga is kind of -- you go -- there's plenty of them out there if you know how to count them. If 31 32 you fly around with an airplane, twin engine -- once in 33 awhile we go out there and count them and there's quite 34 a bit but they're in different spots, mostly from Cape 35 Darby on up to Ball -- I mean that Bald Head, at --36 this side of Koyuk. 37 38 So only thing that happened is that 39 Kotzebue had quite a time catching beluga up there last 40 year, last few years, and every time we have beluga 41 meetings they always stand up and mention that ever 42 since you -- they start using high powered motors and 43 them beluga don't like that high pitch sound on prop 44 and they always just go straight out -- straight out to 45 the ocean away from the noise. And anyway our beluga 46 are pretty -- population is pretty healthy but I don't 47 -- kind of don't care how they go out and shoot at the 48 beluga, whole bunch of boats, I mean I don't like it. 49 It has a -- kind of cripples some of the beluga and 50

Page 13 they don't last too long out there when they're 1 crippled. And I wish some of the villages would get 2 3 together and -- and we talk about it all the time when 4 we have IRA council meetings because I -- I work with 5 the beluga with the National Marine Fisheries Service 6 for maybe 20 years and they're really afraid of them 7 high pitch props. They hurt their ears and those 8 beluga are pretty intelligent animals and you got to 9 respect them even if you want them. 10 11 Don't -- don't get any more than --12 beluga than you can handle otherwise it'll just go to 13 waste. We got to kind of conserve our fish and game 14 and our sea mammals. 15 16 But anyway they're going to be open 17 pretty soon them belugas are going to come back and 18 start feeding on tomcods and shrimp. 19 20 But anyway I hope everybody have a good 21 beluga season this year, this fall -- I mean, yeah, 22 this summer and this fall. And best time to get beluga 23 is when the salmon first come in. Don't go out to the high seas and go look for them belugas because they're 24 25 pretty damn smart. They'll out smart you. If there's 26 ice around, you don't even go after them, they know where to go and if there's a lot of ice around they go 27 28 hide amongst the ice but anyway hope everybody have a 29 good beluga season this summer and this fall. 30 31 And me and my brother -- me and my 32 brother always go out there and hunt and we always 33 listen to my grandpa how to hunt the beluga. And most of the time we go out my brother shoot five times get 34 35 five beluga, every time, and that's pretty -- you got 36 to know how to do it though, you can't -- you can't put 37 your out board motor -- when you get close to them, you can't put them all the way and make that high pitch 38 39 sound, they'll go under and they'll disappear and 40 they'll just come up with their blow holes, you know, 41 and there's 50 or 100 beluga out there, they'll just 42 come up with their blow holes, even them young ones, 43 they always go on their mother's back and ride their 44 mother. Even sometimes you see three of them with 45 their mother, on their backs, when there's a lot of 46 boats shooting around, they're afraid of that noise, 47 high noise. 48 49 Anyway, I hope you guys have a good 50

Page 14 season, this summer, this fall, if you go hunt beluga 1 2 and good luck. 3 4 ACTING CHAIR GRAY: Okay. So I'm Tom 5 Gray. 6 7 Charlie talks about beluga and I'm the 8 Chairman of the Beluga Whale Committee in Alaska. And we had a survey in 2017 and came up with Norton Sound, 9 Yukon beluga whales, 9,200 whales. And we are on -- on 10 11 Sunday I start traveling to some villages to talk about 12 hunters coming together and putting together a 13 management plan for beluga whales. And this is going 14 to be a plan for Norton Sound and Yukon people, and the 15 plan will be how are we going to manage these 9,200 16 whales, Norton Sound and Yukon whales. It's -- we're 17 hoping -- even though I'm the Chairman of the Alaska 18 Beluga Whale Committee, it's not going to be their 19 management plan, it's going to be the hunter's 20 management plan. And I mean if the hunters take hold of it and run it'll come together, if they don't, it's 21 22 not going to happen. So we're kind of in a serious 23 time to talk about it, you know, our intent is to have the hunters manage the whales and not the bureaucrats, 24 25 so to speak. We don't need people in Washington 26 telling us how to manage whales that we live on. 27 28 So anyway that's that. 29 30 Moose hunting. You know, I think those 31 that live around here realize how fast moose hunting 32 happens nowadays. It opens and it should be open for two weeks and a lot of times it's over with in a few 33 34 days. 35 36 Bear hunting, everybody and their 37 brother thinks there's tons and tons of bears out there. I'm a hunting guide and I have different views. 38 39 But that's -- you know, through bear hunting, I live 40 out hunting bears all fall so I see a different picture 41 than most people. And one thing to think about is 42 everybody and their brother wants to shoot a bear and 43 they want to shoot the biggest badest bear around and 44 how does that affect the society within the bears. You 45 start killing off all the big ones, the big ones kill 46 the cubs, and the cubs -- the female will cycle again and get pregnant again and it's kind of a vicious 47 48 cycle, well that element is being taken out of this 49 process. So anyway I don't want to dwell on bears 50

1 because I won't win that fight. 2 3 Anyway, crabbing. Crabbing has been a 4 real downhill slide issue. In fact, this winter --5 last summer, first off, they ended up not getting their 6 quota. They had a quota of 150,000 or something, 7 pounds, and they only got 80,000 pounds and they shut 8 it down. This winter there's a bunch of politics going on right now trying to shut this crab fishery down and 9 10 it did not get shut down. And we're going to talk more 11 about that as we get into the meeting. Charlie Lean 12 sent me a text a minute ago, he said he's free to talk. 13 He didn't plan on getting here until the noon flight 14 tomorrow and we have him on the agenda to address what 15 he would like to do so we may have to think about getting him on the teleconference today, especially if 16 17 we're ramming stuff through and think we're going to 18 get done early to get some of these guys that need to 19 go back to Anchorage on the plane at noon tomorrow. So 20 anyway, crabbing has been pretty dismal. 21 22 You know, fishing, gosh, fishing is --23 I can't say it's been phenomenal but it's been better. 24 We've had better fishing. And I'm a fishing guide so 25 it'll probably never be what I want it to be but that's 26 life. 27 28 You know, the weather has been 29 different. We're in changing times. A year ago we sat 30 here and talked about how the weather was so dramatic and now we talk about it and we're back to 30 below and 31 32 on and on so what's going on, I don't know. You know 33 we're kind of back to normal. We've had three or four 34 years of more snow than we want, high river waters, the 35 water never went down in my river last year. It got so 36 hot there was lots of algae last year that it was 37 affecting the fish. So it's -- we are in changing 38 times. 39 40 And what else can I say. 41 42 Wolves. You know, we need to get rid 43 of wolves. Everybody complains about bears and doesn't 44 say anything about wolves and wolves are 100 times 45 worse than bear as far as I'm concerned. I had a 46 reindeer herd, I saw the negative impacts of a wolf. 47 48 So anyway, I'm going to pass the buck, 49 somebody else is going to talk about things I should 50

1 have talked about. 2 3 Elmer. 4 5 MR. SEETOT: Thank you, Mr. Chair. 6 What I was going to report, what I wrote down, I pretty 7 much kind of reported at the last meeting. 8 9 Ice froze at pretty much the proper time I think, this -- this year after a long hot summer 10 11 tomcod fishing wasn't too hot back home due to ice not freezing up at the proper time. One thing that I 12 13 notice about weather change or climate change is that 14 what they're talking about, beluga, we're seeing them 15 in our area now. I mean about this time they kind --16 they used to kind of pass further out in the Bering 17 Sea, now we're able to harvest them, especially during 18 the early spring or I -- I heard that they passed 19 through our shores in late November, so things are 20 pretty much changing at a rapid pace. 21 22 Caribou has not really been harvested 23 by our people in Brevig and Teller. One, is snow conditions are not -- not too much on the ground, and 24 25 weather played a big factor in that the end of December to kind of present now that we have had temperatures 26 27 below zero, so that's a big change from what I've seen 28 during the past five years. 29 30 I think the conditions are reverting 31 back to normal like Tom is saying and hopefully that 32 will be able to repair and mend what -- you know, the 33 marine ecosystem, we've had too much warm weather, producing lots of rain, resulting in less berries and 34 35 fish not drying up. 36 37 Salmon went through their normal cycle, 38 I guess starting with the kings. The kings, the reds, 39 humpies, the chums, and the silvers. 40 41 Unlike Tom on bear hunting, him hunting 42 bears, in his area, in our area we talk about bears, 43 that's about it. We rarely hunt bears. And then I 44 noticed that there are many bears in and around 45 Grantley Harbor, Imuruk Basin area. Port Clarence, Imuruk Basin are shallow waters and with that 46 47 unrelenting sun bearing down on the waters it produces 48 warm water and hopefully our fish will be able to 49 survive these waters going up -- going up the Kuzitrin, 50

Page 17 going up the Agiapuk, going -- going to Salmon Lake to 1 2 spawn so -- so I think that's one of the main concerns 3 that we -- that we need to talk about, is that warming 4 waters affecting the fish that we depend on. 5 6 We have had algae in Imuruk Basin for 7 as long as I can remember but it's getting more 8 frequent, you know, I even see it in our backyard algae forming due to the puddles of water warmed up by the 9 10 sun so -- so that's something that we're constantly 11 looking at. 12 13 Other than that I have not -- nothing 14 much to say. 15 16 Thank you, very much. 17 18 ACTING CHAIR GRAY: Doug. 19 20 MR. KATCHATAG: I'm Doug Katchatag from 21 Unalakleet. 22 23 My main concern right now is about gold 24 mining. They want to -- BLM has proposed gold mining in the North River, head of the North River and also 25 26 the Golsovia River. And if this happens, all we have 27 to do is look at Columbia River, how many years they 28 went without fish and how many years was their land all 29 torn up. And if that happens in Unalakleet, all our 30 fish that goes up the main river will be killed. That's the biggest concern I have. It's not only our 31 32 salmon, but our trout, our tomcods and everything else that we depend on. 33 34 35 As for the ocean, sea mammals, that's 36 another big concern because I hunted all my life out in 37 the ocean and knowing that the ocean is contaminated, 38 it's putting cancer into our sea mammals and I'm afraid 39 that that's where we're getting our cancer from. Sea 40 mammals that we're not sure where to detect the cancer. 41 And I'm afraid it might be infecting the fish also. 42 The fish may have cancer, I'm not sure but knowing how 43 contaminated our ocean is, I would imagine so. 44 45 As far land hunting, we have a lot of moose. We have more moose than we ever had in years, 46 47 so -- and besides that our -- the Federal Fish and Game 48 opened their moose season in the middle part of August 49 and it's always way too hot, the moose are still up in 50

Page 18 the hills. During the Federal subsistence hunt there 1 2 was only one moose caught and I would like to see the 3 season for moose open the 15th of September for Federal 4 Fish and Game. That's when the big bulls starts coming 5 off the hills. 6 7 Let's see what else -- that's about all 8 I have. 9 10 MR. KIYUTELLUK: Lloyd Kiyutelluk from 11 Shishmaref. 12 13 I'll start with our last spring hunt. 14 We did pretty good. We got our bearded seal, oogruks 15 and walrus. I was out of state when they were walrus 16 hunting. My brother said they had to go 40 to 50 miles 17 out to go to the ice, they got the walrus but he said 18 coming back was a little dangerous, it started getting 19 rough on everybody. But we go with our boats together 20 so we're not alone. 21 22 And as far as fall hunting, we get our 23 caribou, moose as usual but with the warming weather, 24 the moose come down later, that freeze up and snow 25 don't come until almost November so we don't see our moose like we do before falltime. 26 27 And with this winter, our ice finally 28 29 froze, which we're happy we'll hunt in the ocean with 30 snowmachines, we didn't do that for years. It -- with 31 the lack of snow within the last three weeks, they 32 finally started hunting caribou. So with no snow 33 conditions it was too dangerous to go out in the 34 country because we got a lot of those tussocks that we 35 got in our tundra that's too dangerous for our 36 snowmachines. 37 38 Other than that we had pretty good successful year and I hope everybody have the same 39 40 thing again this spring. 41 42 Thank you. 43 44 MR. KIRK: Hi, Ron Kirk. Stebbins. 45 46 We had a late freezeup in our area so 47 tomcod fishing wasn't too good. But we were able to 48 gather some tomcods when the tide went out. They all 49 got jammed into this little river and everybody was 50

Page 19 over there just dipnetting tomcods which was good. 1 2 3 We're having problems with wolves. 4 Like Tom say everybody's talking about bears but 5 nobody's talking about wolves. The wolves -- they've 6 been spotting wolf in my village for the past two 7 weeks, three weeks. My snowmachine was down. I 8 changed my bearings and got it running, and now that my snowmachine's running I don't know where the wolves 9 10 are, I've been looking for them. I tracked them. I 11 tracked them and they were tracking 2 moose, and this 12 is only like two miles from my village, right in my 13 back yard. So the moose are coming down from the 14 mountains and the wolves are coming down to Stebbins area. I am pretty sure they are having an impact on 15 our reindeer. Our reindeer herd should be over 10,000 16 17 strong. Right now the young boys are going out to 18 gather some reindeer for our upcoming potlatch, which 19 is this coming Friday, I'm one of the leaders of the 20 drumming down there. 21 22 As far as marine mammals go, I stated 23 in my last report that we had carcasses washing up last 24 summer. I hope that doesn't happen again this summer. 25 26 But hunting seals last fall and young oogruks was successful, but some of the carcasses were 27 28 -- they still had them sores on them, they weren't 29 edible so they just let them be. 30 31 And we had some beluga wash up -- dead 32 beluga wash up during the fall. 33 34 We had this high wind, which washed up 35 our shore ice right up to the beach. It almost -- if we didn't have heavy equipment, it would have smashed 36 37 one home, because we had to get the heavy equipment there to stop the ice from smashing the home due to 38 39 high water. 40 41 So other than that we're trying our 42 best to survive with this climate change which is 43 affecting the whole state of Alaska, not only our area. 44 45 And I agree with him about mining. Ι 46 don't like this mining idea. I brought it up that last 47 time we had that meeting with BLM. I was concerned 48 about the whitefish because the whitefish are heading 49 up the Yukon River into the headwaters and once that 50

Page 20 mining affects that headwaters, we're going to not only 1 2 lose the salmon we're going to lose our whitefish because that's where they go up to spawn. They got to 3 the headwaters and spawn. We'll not only lose the 4 5 salmon and the fish, but these people living near the 6 mining, they're going to lose their fresh drinking 7 water, and all marine mammals, human beings, animals 8 that walk the planet, we all need fresh drinking water. So mining is a big concern. 9 10 11 Thank you. 12 13 ACTING CHAIR GRAY: Okay. Well, thank 14 you everybody -- thank you all. Did anybody have any 15 second thoughts before we move on, something they 16 wanted to say and forgot to say. 17 18 (No comments) 19 20 ACTING CHAIR GRAY: You can come up to 21 the mic and ask a question. 22 23 MS. PARLOW: No, I just wanted..... 2.4 25 REPORTER: Yes, if you're going to talk 26 you need to come on up. 27 28 MS. PARLOW: Well, I'm nervous. 29 30 ACTING CHAIR GRAY: That's all right, I 31 like to make people nervous. 32 33 MR. KIRK: You need to turn your mic 34 on. 35 36 REPORTER: The button in the middle. 37 38 MS. PARLOW: So are you hearing me now. 39 40 ACTING CHAIR GRAY: Who you are, where 41 you come from before you start. 42 43 MS. PARLOW: Yeah, so my name's Anita 44 Parlow. Last year I worked on a project with the Port 45 of Nome, the ice is melting, oil gas mining, shipping heating up, so what are we going to do, and I'm now 46 back here to write an article actually on warming 47 48 issues and the impacts on subsistence over in Savoonga, 49 in particular, and my question is: 50

Page 21 It's remarkable what you've all been 1 2 saying, it's breathtaking, actually. And I wonder, to 3 what extent -- you talked about the last five years and now it's kind of almost like back to normal from before 4 5 that, what are the dynamics of -- how different now, 6 and is now an anomaly from the last five years, and is 7 the last five or 10 years an anomaly from before that. In other words, what -- what have you been sort of 8 dealing with as the changes occur and..... 9 10 11 ACTING CHAIR GRAY: So.... 12 13 ANITA:how -- it sounds pretty 14 dramatic to an outsider.... 15 16 ACTING CHAIR GRAY: So okay -- so.... 17 18 ANITA:so is it dramatic. 19 20 Thank you. 21 22 ACTING CHAIR GRAY: Okay. What I'm 23 going to do is we're here for a meeting. 2.4 25 ANITA: Sorry. 26 27 ACTING CHAIR GRAY: Okay. And you're going to have plenty of opportunity. We could sit here 28 29 and talk for an hour on this issue but we just don't 30 have time. 31 32 ANITA: Okay, apologize. 33 34 ACTING CHAIR GRAY: I think you need to 35 corner as we take breaks and stuff..... 36 37 ANITA: Thank you. 38 39 ACTING CHAIR GRAY:corner people 40 and get your questions answered. 41 42 ANITA: Appreciate much. Sorry --43 sorry to disturb. 44 45 ACTING CHAIR GRAY: Okay. Thank you. 46 47 MR. OYOUMICK: Not a problem. 48 49 ACTING CHAIR GRAY: Okay. So the next 50

thing on the agenda is the Chair's report and to be 1 2 honest until a day ago I didn't know I was going to be the acting Chair, 1 so I really don't have a report. 3 You heard what my thoughts are in the Nome area just 4 5 recently but, again, I don't have a report. 6 7 You know, if anything jumps out that 8 this region is kind of up in arms about it's the crabbing issue. And you know I guess one thing that we 9 10 need to recognize is whether it's a State or it's the 11 Feds, subsistence is the bottom line, and we need to 12 protect subsistence. So, you know, there's a lot of politics going around Nome right now about crabbing, 13 14 and I would hope that agencies, whether State or Fed, 15 recognize that we all have a mission in life and the 16 bottom line is protect subsistence, which I don't think 17 that's happening right now. 18 19 The other issue on this crabbing thing 20 is Feds beware, because I called Karen and asked Karen 21 to make sure somebody's at the Board of Fish to testify 22 what the Feds stand is and -- and once we get too low 23 in this crab fishery the Feds have to take it over. We 24 don't have a choice. And I told Karen I'm going to 25 shove it right down the Feds throat. If they don't 26 want to get up and testify and be part of the solution today, when it comes time tomorrow and our numbers are 27 28 too low, Tom Gray's going to be screaming and hollering 29 you better take it over. 30 31 So I just wanted to make sure that's 32 clear. 33 34 Roy, you had a comment. 35 36 MR. ASHENFELTER: Mr. Chair. In vour 37 package, Page 12 through 15 is the Chair's report from 38 Louis Green, Jr., writing a letter to Ted Spraker and 39 he's talking in those pages, the moose proposal -- the 40 Board of Game action on the different proposals that 41 they took up in January of this year here in Nome. Ι don't believe that's all the proposals, but just to 42 43 point out that whenever you get time there is a Chair's 44 report from Louis. 45 46 ACTING CHAIR GRAY: Okay, thank you, 47 Roy. I'm glad you pointed that out. 48 49 And, you know, keep in mind this --50

Page 23 Louis' report didn't address -- I'm sure it doesn't 1 2 address the crab issue and this crab issue surfaced 3 just recently so, again, it's -- I don't think it's 4 going to be a small issue that goes away. I think 5 we're going to see this come back to this Board time 6 and time again and if nothing else Tom Gray's going to 7 say, I want to see it on the agenda, where are we at, 8 how are we doing, where are we in being forced to take 9 it over, are numbers coming back. It looks pretty 10 dismal. The trawl surveys and everything. And we'll 11 hear more about that but it looks pretty dismal right 12 now. 13 14 So, okay, you guys have this Page 12 to 15 15. You can take a couple minutes and look that over and then we'll move on on our agenda. I'm not good at 16 17 reading stuff so I'm not going to read it, if you want 18 to read it, that's fine. Of course we could make Tom 19 read it. 20 21 (Laughter) 22 23 ACTING CHAIR GRAY: Come on now. 24 25 Okay, I'm going to take a break, you got five minutes and you can read this thing, or go 26 27 have a cigarette, cup of coffee, whatever, and then 28 we're going to come back and start on the next thing on 29 the agenda. 30 31 (Off record) 32 33 (On record) 34 35 ACTING CHAIR GRAY: I'll call us back to order again. I've asked Charlie Lean to get on the 36 37 phone with us, he's in Anchorage, I think. So what 38 we'll do is have Charlie explain what's going on with 39 the crab issue. And I think Roy will smile. 40 But, anyway, Charlie are you there? 41 42 43 MR. LEAN: I am, yep. 44 45 ACTING CHAIR GRAY: Okay. So, Charlie, 46 you got the floor then. 47 48 Okay, thank you. MR. LEAN: I'm 49 Charlie Lean. I'm the Chair of the Northern Norton 50

Sound Advisory Committee. Roy was at our -- you know, 1 2 the former Chair and was at this Board of Fisheries 3 meeting with me while we were talking to the Board on 4 crab issues, shellfish issues. 5 6 So I think everybody probably in the 7 room is aware that there's just very few decent size 8 crab in Norton Sound at this time. If you've been out trying to crab or know anybody that has they've 9 10 probably complained that they just can't find anything. 11 12 So, you know, we were start to hear 13 rumblings of this over a year ago and then we -- when I 14 started digging into the numbers we realized that it 15 was even worse than I had thought and I showed it to 16 the Advisory Committee and what we're seeing is that 17 the number of eggs on the female crab are less than 18 half of what's normal. In other words, the eggs that 19 don't get fertilized, they fall off the crab. When a 20 male and female crab mate, the fertilized eggs get sticky and they adhere to the underside of the female 21 22 crab and she carries them for about 11 months until 23 they hatch but if they don't get fertilized they just 24 wash off. And that's what happens. 25 26 And that, to me, is the red line and as it turns out, to the Board of Fisheries, that was the 27 28 red line. 29 30 So we went to the Board of Fish, actually in February -- early February and wrote a 31 32 letter -- a petition to them to please close commercial 33 fishing in Norton Sound and they took it up immediately 34 but nobody told us and Fish and Game Staff, all the way 35 from headquarters down to the area office kind of 36 dismissed it and said, oh, they don't know how to read 37 graphs, misinterpreted the data, yes, that's our data but, you know, they don't -- they didn't do it right. 38 39 And we went to this Board meeting armed with a lot of 40 graphs and we talked non-stop, so we testified to the 41 limits and talked to various Board members and 42 basically after a lot of legalistic BS, they heard us, 43 you know, and a day later they heard us -- had a 44 discussion with us again and then another day later 45 they took up our proposal, but decided that somehow it 46 hadn't been correctly done so then we got the -- the issue got tabled to the very end of the meeting. 47 So 48 the last thing in the meeting, we're sitting there 49 chewing our fingernails and we went back and forth a 50

little bit but we -- we put in some substitute language 1 2 and clause number 3 was to close the season for a year 3 and when the -- when the Board voted on whether or not to accept that clause in the motion, there was one 4 5 Board member that made a motion to delete that clause 6 and all the other Board members turned around and 7 looked at him and there was dead silence and the motion 8 died for lack of a second. And then they voted in no 9 time flat to support the closure of the commercial 10 fishery in 2020. 11 12 So that's just for 2020. 13 14 But what's going it happen here in 2020 is that -- also that law won't take effect until about 15 16 the end of April so that means the winter fishery is 17 technically open, the winter commercial fishery is 18 technically open until some time in April but it means 19 the summer season is closed. This did not affect 20 subsistence, subsistence is -- if you want to go subsistence fishing you may, I just don't think you'll 21 22 do very well but that's up to the individual, if they 23 want to go subsistence fishing have at it. And our new regulation closes east of 167, so that's basically from 24 25 Sledge Island east. So this in no way affects anything 26 up in the, you know, doesn't really affect Wales or 27 Diomede or St. Lawrence Island. 28 29 So then exactly what I was trying to 30 say is there's a review going on of some -- of a crab management model, that Fish and Game depended heavily 31 32 on to make, what we think is a bad decision, and that 33 model is being totally redone. And the first critique of that will occur in April, in late April. And we 34 35 anticipate and I quess are even hopeful that when they 36 consider the female information that scared the heck 37 out of me, the fact that there is no babies being made and the fact that there's virtually no legal sized 38 crab, you know, they have to reconsider their model 39 40 because that's not what the model says. So we're 41 hopeful that, you know, by next December there'll be a new model, that Fish and Game will, you know, be told 42 43 by numerous authorities that the old model was wrong 44 and they should get on board on this new model. 45 46 I guess for those of you that are 47 thinking about the crab, the situation is pretty poor. 48 We don't anticipate very many crab growing to legal size at all this year. A number of them will grow and 49 50

become just under legal size this year. And then in 1 2 2021 we should start to see a few crab reach legal size 3 but not very many. 2022 we should see more reach legal size. 2023 even more. There's this wave of 4 5 recruitment that's going to -- it's really going to 6 kick in in about 2023. So that's the point we're 7 really, in many people's mind, the commercial fishery 8 should reopen. So we need to kind of watch that. 9 10 Subsistence fishers, you know, they're 11 not confined by legal size and, really, the truth is that many of us eat crab that are not quite legal size 12 13 and so that -- you should see things start to turn 14 around here in another year or two. But I mean for the 15 short term, right now, the majority of the crab out there are about two and a two and half inch diameter 16 17 crab across the back and, you know, that means you're 18 picking the meat out of the legs with a toothpick, it's 19 pretty -- not desirable. You know, I think, speaking 20 as a subsistence fisherman myself, I'd much rather eat 21 a larger crab. 22 23 Anyway, that's it in a nutshell. 24 25 And it took a lot of talking and Roy Ashenfelter, Jacob Ivanoff, both for the subsistence 26 27 fishers and to a little extent I did, but NSEDC Staff was there too, Wes Jones and Scott Kent, myself, we 28 29 played the scientists and it was close but we closed 30 the fishery for this 2020 season. 31 32 ACTING CHAIR GRAY: Well, Charlie, that 33 really sounds good to me. I'm, again, Tom Gray's a little frustrated because I grew up in Nome as a kid, 34 35 and handlined as a kid, and in recent years, you know, 36 trying to compete with the commercial fishery for the 37 last 20 years has been just frustrating. And, you know, I seen a huge difference in what subsistence 38 crabbers catch and it was rather shocking to go out on 39 40 the ice years ago and see all the commercial pots in 41 the middle of winter, I didn't expect that. 42 43 So I think the big thing with me 44 sitting here at this table, my big concern is 45 subsistence crabbing for our people. And, you know, with this shutdown going to happen, and ironically it's 46 not going to take effect until April, there's got to be 47 48 something that this Board can do. 49 50

Page 27 1 And, Karen, are you still with us? 2 3 MS. DEATHERAGE: Yes, Mr. Chair. 4 5 ACTING CHAIR GRAY: So I'm going to --6 I'm fishing for ideas, what can we do as a Board 7 to.... 8 9 MR. LEAN: Mr. Chair. 10 11 ACTING CHAIR GRAY: Yes. 12 13 MR. LEAN: This is Charlie. So I gave 14 you the short version. 15 16 There's a couple of things you ought to 17 be aware of. NSEDC has financed an MSE analysis, so 18 what that is is that's hiring a third-party contractor 19 to critique crab management and suggest positive 20 changes. So that -- because we're the buying industry we realize that, you know, we can't be unbiased so 21 22 we're making a contract with the University of 23 Washington and some big wheel consultants to do that. 24 So that's one positive things that's happened. 25 26 The other angle on that is we are going 27 to write letters to the crab planning team that meets in April I told you is trying to build that model and 28 29 we're going to write and say, have you looked at the 30 female data. You've been collecting all this data for years and you only look at the male portion of it, so 31 32 what about the females and we're going to ask about, 33 you know, can you give us an answer about what you're 34 doing. And thirdly, unrelated to that, the Southern 35 Norton Sound Advisory Committee, and to some extent 36 Fish and Game are considering permanently closing the 37 winter commercial fishery. And they're worried about 38 the high pot loss rate, and also the damage that's done by hand -- we call it handling mortality, people bring 39 40 crab up on the ice and sort through them and then 41 eventually return the unwanted crab to the water, but, 42 in the process those crab get frostbitten and even 43 though they may be alive when they go back in the 44 water, they may be mortally injured. 45 So that's one of the ideas that's 46 47 floating around, and that was originally proposed by 48 Southern Norton Sound AC. 49 50

Page 28 ACTING CHAIR GRAY: So, again, you 1 2 know, I think because the fishery, if it falls too low 3 and the numbers get to a certain point, the Feds, at some point are going to have to jump in and take over 4 5 management. And because of this, I think this Board 6 needs to take a stand in writing or something to help 7 this recruitment of crabs, you know, to reestablish 8 enough numbers that it's sustainable for our 9 subsistence users. Right now I don't believe we have a 10 sustainable fishery even for our subsistence users. 11 12 I'm a little bit concerned, Charlie, 13 that west of Sledge Island is still open and they can 14 have a crab fishery even in the summertime it sounds 15 like. 16 17 MR. LEAN: Yeah, that's where the blue 18 king crab live, not the red king crab, and we didn't 19 feel comfortable closing that. 20 21 So to speak to your question about what 22 can you do, I think the proper thing, if you have a 23 concern like the sustainability, is to write to the 24 STC, the Scientific Technical Committee of the North Pacific Council and they'll have a meeting in early 25 summer and explain that you don't believe the fishery 26 27 is sustainable and that, you know, escapement -- or --28 not escapement, but the equivalent of that, the mature 29 male biomass is incredibly low, the lowest on record, 30 and you could -- that's where you'd insert into the 31 North Pacific Council process to have them either take 32 over or to demand Fish and Game to shape up. 33 34 ACTING CHAIR GRAY: So, Karen, do you have enough information now to -- if the Board makes a 35 36 recommendation to write a letter or whatever, do you 37 have enough information to address where we need to go 38 from here? 39 40 MS. DEATHERAGE: Thank you, Mr. Chair. 41 If the Board makes a recommendation, a motion to send a 42 letter to the organization Charlie referenced, what I 43 would ask the Council to do is to confirm that they 44 are, if they are, in fact, in agreement with Mr. Lean's 45 assessment of the situation and then be as specific as you can within the motion about what you would like to 46 47 see. 48 49 Thank you, Mr. Chair. 50

Page 29 1 ACTING CHAIR GRAY: Okay. Roy had a 2 comment he wanted to add to this process here. 3 4 Thank you, Mr. Chair. MR. ASHENFELTER: 5 My name is Roy Ashenfelter. I'm employed with Kawerak. 6 7 One of the things you could consider in 8 your motion is make the motion to write a letter to the North Pacific Management Council, STC, and in your 9 10 motion, have Charlie Lean, or some biologist write it 11 so that it covers the important issues that the Council, the North Pacific Council needs to hear about. 12 You then -- what I would do -- what I have done with 13 14 the AC's, since many times was not the expert in some 15 of these decisionmaking processes, I would then get the 16 letter, and I did this for the caribou herd working 17 group, too, is if there was a biological issue, I would 18 have the biologist write the issues down, and then I 19 would circulate that with the Council members and say, 20 this is the letter that's going to go to the North 21 Pacific Fishery Management Council, it covers the 22 specific things that would require the Council to 23 consider in a way that's helpful to -- trying to get notice that this crab fishery is very poor and that 24 25 there has to be some recruitment. And in this letter, 26 Charlie or somebody, even that independent person that they've hired out of Seattle, would write pertinent 27 28 information in there that would be helpful to making 29 sure that the STC understands what's going on and try 30 to get support that way. 31 So that would be my recommendation, is 32 33 that you make the motion pertinent to working with 34 biologist -- of crab biologists to come up with the 35 information and then once it's there you circulate it 36 among Council members to say this is it, you have --37 what I've done before, just so it don't sit out there all the time because you have Council members from all 38 our villages, you have three days to respond, something 39 like that, and if you don't respond within three days 40 41 it's going -- your non-response is going to be in 42 consideration to support this, because you need action 43 right away, you need verification right away. And 44 since I was working on the caribou working group, we 45 had members all the way from Barrow all the way to St. 46 Michael and so that was the way I did that. Notifying the Council members that that's the way it's going to 47 48 be done so it's not a surprise that after three days if 49 they don't get a response, that that's, you know, the 50

Page 30 intent there is to get a response back from everyone to 1 2 encourage what their thinking is and then if there is a 3 point or disagreement, great, then you have a chance to 4 dialogue with that person. 5 6 But that's my recommendation. 7 8 ACTING CHAIR GRAY: Okay. So I'm not 9 sure, does everybody -- do all the Board members 10 understand what's going on and do you need 11 clarification on anything? 12 13 Leland. 14 15 MR. OYOUMICK: Hi, Leland Oyoumick 16 here. I have one question for the biologist, what time 17 of the year do they reproduce or do they -- how do they 18 reproduce, I have no idea, no clue as to how crabs 19 function or -- I know they're really good to eat but we need.... 20 21 22 (Laughter) 23 24 MR. OYOUMICK:do they -- how do 25 they reproduce? 26 27 MR. LEAN: Okay. So I'm speaking about red king crab and that's a little bit different from 28 29 blue king crab that live at Diomede or St. Lawrence 30 Island so I'll try to explain the difference. 31 32 So red king crab females actually shed their shells to exclude their eggs, so if you catch a 33 34 female crab and you tear it open you'll notice there's 35 kind of a very dark purple or black mass inside the 36 body and those are the undeveloped eqqs, that's the 37 ovaries, so when they shed their shells and pull up a 38 large females they shed their shell in late February, 39 early March. And if you're a first time, just now 40 become mature female it's a month later, so we're 41 talking March, April. So, anyway, they shed their 42 shell, within three days they have to squirt their eggs out through two little pin holes, they're on the third 43 44 leg back on either side, right next to the body, 45 there's a little pin hole, if you catch a female crab you can find that, it's called an ogolfor (ph), and 46 47 before -- before she squirts her eggs out, a male crab 48 comes up and it's called grasping, and they -- the male 49 crab grabs the female crab by the pinchers, by the 50

(indiscernible) and basically helps her out of her 1 2 shell and then the male crabs have that funny weird 3 little leg that tucks up inside their shell, that's 4 like another leq, that's real skinny, it's like a straw 5 and it's a -- they put a blob of sperm on the ogolfor, 6 on either side of the female, and then she squirts her 7 eggs through that sperm and like I said, if they get 8 fertilized and the eggs adhere to the feathery little 9 legs under the flap on the female's abdomen and if they 10 don't get fertilized they just blow away in the water. 11 And so then those eggs that are stuck to the female, 12 they sit there for about 11 months, until about 13 January, and then they hatch. And when they hatch 14 they're like a little shrimp only microscopic almost. 15 I mean you have to look at a crab egg to see how small 16 the little crab coming out of that egg is, it's tiny. 17 Three months later, April timeframe, those little 18 shrimps have now grown up a little bit, so now they're 19 half the size of a pea, little shrimpy things swimming 20 around and they go into this one week long life stage 21 that's called a megalopathoid (ph) and they rise and 22 fall in the water column and then -- and every day 23 they're on the bottom poking around trying to find a 24 piece of seaweed or a big rock to crawl under or 25 something, so that's called settling. And the little 26 crab settles hopefully in a place where he's protected from predators, or she, and then they grow. And it 27 takes another five or six years for them to reach 28 29 sexual maturity. And so they grow by molting, by 30 shedding their shells. So little tiny crabs, you know, 31 they might molt five times in a year but by the time 32 they get to be sexually mature they only molt once a 33 year, so now we're talking crabs that are four inches 34 across the back. 35 36 Male crab become sexually mature at 37 about six years, female king crab become sexually mature at about four years old, so there's a size 38 39 difference. Male crab are generally a little bit 40 bigger than female crab and as they get older the male 41 crabs live longer because the females put so much 42 energy into eggs that they don't grow much. 43 44 What's happened here in the last three 45 years is because there's so few big males, the little 46 crab just to reach sexual maturity are finding that 47 there's all kinds of female crab to mate with and so 48 they've put a lot of their energy into mating and 49 because they put so much energy into mating, they're 50

Page 32 not growing. So one of the reasons is it can take 1 2 longer to recover from than it should, is because we're 3 already seeing about 10 percent of the best and legal size crab, the sub-legals are skip molting because 4 5 they're too busy mating. So that compounds our 6 problem. 7 8 Are you still there? 9 10 ACTING CHAIR GRAY: Yep, we are. 11 12 MR. LEAN: Okay. I thought maybe I 13 lost you. 14 15 So anyway when they don't grow then the 16 first crab that becomes legal, if you have a commercial 17 fishery or an intense fishery, let's say, then you kind of select, genetically you're changing the genetic make 18 up of the crab and you could change the genetics of the 19 20 crab if you fish them hard right when there's no big 21 crab then you could make your population smaller. And 22 that was an issue in a tanner crab fishery at this 23 meeting in Homer that they had to change their legal 24 size, you know, half an inch smaller because those 25 crabs had been genetically selected smaller from 26 intense fishing. 27 28 So in thinking about subsistence 29 fishing and what's desirable and so forth, you know, it 30 seems to me that we don't want to limit subsistence 31 opportunity but when we talk about the availability of 32 subsistence crab, you don't want to be fishing on the 33 crab the size they are today, you want to be fishing on crab that are, you know, like four inches across the 34 back or in that ball park, right. If you get them much 35 36 smaller than that, you're kind of -- you're working 37 really hard for a little bit of food. 38 39 So that might be a consideration for 40 you to throw around or talk to your friends about, you 41 know, what's too small, what size of crab do you think 42 is okay. 43 44 Anyway, I talk too much. 45 46 ACTING CHAIR GRAY: Yeah, it's like me, 47 I talk too much too. 48 49 And I do think we need a dialogue at 50

Page 33 some point, maybe in the fall meeting, to talk about 1 2 subsistence crabs, what do we expect for our 3 subsistence users to be looking for when they go 4 crabbing which will dictate the size of the biomass 5 that the commercial operators can cut it down to. You 6 know, I -- some day they're going to be commercial 7 fishing again and I hate to see us go into this low, 8 low situation that we're in and it would be good, 9 again, to figure out, yeah, we can only go so low and 10 let's not manage below that point. 11 12 So, Ron, has a comment here. 13 14 Go ahead. 15 16 MR. KIRK: Charlie, through the Chair. 17 Mr. Lean, you were talking about red king crab east of 18 Sledge Island and blue king crab west of Sledge Island, 19 now we all are aware that east of Sledge Island our 20 waters are low, and has anyone in your department do a 21 study or did a study on climate change because the sun 22 ray, when it comes out in the summer, it's hot and if 23 the water is low the rays of the sun could pop mercury from the sea bottom and if the Earth shifts and the 24 25 ocean cracks in the bottom we still have mercury coming 26 out. Is that being studied? Is there any way to tell if mercury is affecting the crabs like it's affecting 27 28 probably our marine life, our fish, our whales, our 29 seals, because we're not only losing crab, we are also 30 losing our marine mammals and our fish in our ocean so there has to be something besides the commercial 31 32 fishermen that are making our crabs low in the red king crab in our area, versus the blue king crab out in 33 34 deeper water where it's cooler. 35 36 MR. LEAN: Yeah. So I'm not aware of 37 any study currently going on about mercury or heavy metals but when the West Gold Dredge was in Nome, there 38 was a six year study on what crab ate, metals and so 39 40 forth, and essentially what they found was there was no 41 -- I mean they were looking at where they were mining, 42 you know, where they stirred up the bottom and so 43 that's kind of the worst scenario for chewing up the 44 bottom and they didn't find mercury to be an issue even 45 though there is a lot of mercury, what they found is 46 that crab had a really high copper level but then you have to remember that crab blood is based on copper, 47 48 not iron like ours, so they have a -- they didn't find 49 anything that was poisoning the crab that was metal or 50

Page 34 metalloid, what -- what we're seeing more recently is 1 2 the change in salinity and a change in acidity and the 3 change in temperature in Norton Sound. So those three things are your most likely culprit. And I'm not 4 5 trying to say they're -- they're scary, they're not 6 good and, you know, the temperature has changed 10 7 degrees fahrenheit in about 10 years and so that's a real deal and the salinity is fluctuating and acidity 8 is not well, I don't -- I don't have those numbers in 9 10 my head, maybe somebody does. 11 12 But that -- if I had to say what the 13 effects were I wouldn't think that would be so much the 14 big adult crab as those little shrimp like ones I was 15 speaking about, the settling crab and the shrimp guys, 16 I think those ones are really at risk with the changing 17 climate. 18 19 ACTING CHAIR GRAY: Okay. I do know we 20 have another speaker that's supposed to be coming on. The million dollar question I have for the Board is, do 21 22 we want to write a letter to this Board addressing our 23 stance on subsistence crab. If we do, we need to have a motion supporting or directing our Staff to work with 24 25 Charlie and his Staff or whoever the players may be to 26 create a letter and get it put together to move it 27 forward. 28 29 Did I hear somebody say um? 30 31 (Laughter) 32 33 MS. DEATHERAGE: Mr. Chair, this is 34 Karen Deatherage. 35 36 ACTING CHAIR GRAY: Go ahead. 37 38 MS. DEATHERAGE: Yes, Mr. Chair. I did want to let you know that we have contacted ADF&G to 39 40 ask Jim Menard to address the Council, however, because 41 I had originally thought Mr. Lean would be speaking 42 tomorrow, we asked if Mr. Menard could be speaking 43 tomorrow, would the Council be interested in delaying 44 any motion for the letter until tomorrow in the event 45 you have an opportunity to get further clarification from Mr. Menard, if so, that might be an option for 46 47 you. 48 49 Thank you, Mr. Chair. 50

Page 35 ACTING CHAIR GRAY: And yeah I -- Tom 1 2 Gray doesn't have a problem delaying this. I do think 3 that we're going to have to cross the bridge at some time but it'd be nice to hear Jim Menard's position on 4 5 this issue. But it's up to the Board. 6 7 Elmer had a question or a comment. 8 9 MR. SEETOT: A comment on what Ron was 10 stating about the -- Nome -- Nome has been mining for 11 over a century. Whatever chemicals they use in the creeks or whatever, you have the shark repellant color 12 13 coming out of sediment, they talk about every spring, 14 what else is in the bottom of our sea floor. 15 16 Nome -- port of Nome is a busy port. A 17 lot of ships do come here, what do they carry, what do 18 they discharge on the way up or on the way back. What other invasive species ride on the bottom of these 19 20 ships that do come up here. Many ship wrecks in the Bering Sea when they're commercial crabbing, what 21 22 chemicals or toxic stuff do they have on board that is 23 leaching into the waters. 24 25 We're so close to Russia. The Bering 26 Sea, there was a nuclear sinking of a submarine, the 27 Chernobyl accident, what else do they put into their 28 waters from their plants. 29 30 We hear about radiation, that wasn't 31 reported last summer, but it -- but it went over so 32 many miles in the air. We have a lot of low pressure 33 systems that come out of the -- what they call the Far 34 East, or from that side, what particles come to our 35 side and then settle down. Like one of the members was 36 saying, our land animals eat from the land, what else 37 is deposited on our land that is being passed on to us. 38 39 Remember that in order for anything to 40 survive it has to start at the beginning. Many of the 41 biologists that come to the table talk about pretty 42 much a life cycle of any species from birth, from the 43 start to their death, do they take into consideration 44 other factors, the ecosystem that -- the natural 45 resources. Comparison, we're holding a meeting here because the air is clean and whatever, if it wasn't, we 46 47 would move to a different location. 48 49 So that's the thing that puzzles me is 50

that NSEDC doesn't have anything really to look at 1 2 other than maybe look at the past misdeeds by human in 3 and around the city of Nome. I'm not blaming the residents, it's just that early miners, you know, put 4 5 anything or everything into our waters. Like Mr. Kirk 6 was saying, water, we need water to survive and pretty 7 much any living thing pretty much either needs water --8 water to drink or a place to live in. Our oceans, our waters really haven't been studied over the years, much 9 10 like land -- land that we see every day, we know that 11 it's white out there because there's snow. We don't know what's on the bottom other than pretty much close 12 to the shoreline. 13 14 15 Put it in a nutshell, many ships come 16 through here. Many communities run their septic or the 17 sewer system into our waters. 18 19 Before that -- before we had water and 20 sewer, we pretty much dumped everything that was 21 considered, you know, waste, by the communities. Wales 22 used to say, oh, look, Brevig ice is coming out, look 23 at all that trash on there, I remember that. 2.4 25 What they need to look at is how much damage has been done to our sea floor that produced 26 27 these, that we are seeing now. Because for anything to 28 perish there has to be a beginning. Pretty much like, 29 you know, like the crises that the nation is going 30 through with the virus, it has to start somewhere. But for example to just say I don't have an answer, look at 31 32 what man has been doing for so many years without any 33 regard to our environment despite our cries for help 34 that, we, as Native people has been looking for. It 35 has all fallen on deaf ears. One, there is money to be 36 made and where money is to be made everything is shut 37 out. 38 39 So I would appreciate any help or I 40 would consider looking at the past mining activities, 41 projects, stuff going through, whatever's going 42 through, Russian activities, that's not being contacted 43 over about what they're doing on their side, 56 miles, 44 that's pretty close to St. Lawrence and Cape Prince of 45 Wales. When I do go around Cape Prince of Wales to do 46 marine mammal hunting you could see the mountains in the background, Diomede is just another -- yet when --47 48 when -- I think we are very slow to address climate 49 change because no one really has said, okay, this is 50
Page 37 what needs to be done, many discussions have been done 1 2 in the past but that's pretty much all it is, 3 discussions without any action by any countries other than what has been done in the past, but I -- I think 4 5 the ecosystems, both the marine waters or land needs to 6 be examined in order to get at the problem of what 7 we're facing. Everything has a beginning and that 8 beginning has to be researched pretty much to the 9 point. 10 11 Thank you. 12 13 ACTING CHAIR GRAY: Okay, very good. 14 15 I'm not sure, you guys as a Board, do 16 you want to address a letter, do you want to put it off 17 until after Menard's here, and then address whether 18 we're going to write a letter; how do you want to 19 handle this, I'm..... 20 21 MS. DEATHERAGE: Mr. Chair. Tom. 22 23 ACTING CHAIR GRAY: Yes. 24 25 MS. DEATHERAGE: This is Karen 26 Deatherage. 27 28 ACTING CHAIR GRAY: Go ahead. 29 30 MS. DEATHERAGE: Thank you, Mr. Chair. I do want to stress that there's no guarantee that Mr. 31 Menard will be available but he was told that if he 32 were available that the discussion would be tomorrow. 33 So I just want to clarify that for the Council. 34 35 36 Thank you. 37 38 ACTING CHAIR GRAY: Okay. Well, I'm going to just say we will bring this issue back up 39 under agency reports, Department of Fish and Game, 40 41 tomorrow and if Jim shows up, that's great, if he 42 doesn't show up we can talk about how we're going to 43 deal with this letter. 44 45 And, Karen, are you going to be on board tomorrow or what's your plans? 46 47 48 Thank you, Mr. Chair. MS. DEATHERAGE: 49 I'm pretty sick so I'm not sure but if I'm not, the 50

Page 38 information that I need to produce this will be in the 1 2 transcripts and with Mr. Lean's help and others we 3 should be able to put together a good letter. 4 5 I think the other point to ensure that 6 the letter references is the need for subsistence, 7 that's really the purview of this Council. And I heard 8 from many people that subsistence users are not getting their crab and I think it's really important, in 9 10 addition to the biology, to include that information in 11 the letter. 12 13 Thank you. 14 15 16 ACTING CHAIR GRAY: Yes. And, again, I 17 think it's very important. 18 19 I mean we've had people from town here 20 dabbling out on the ice all winter long not catching crabs and getting frustrated and pulling their pots. 21 22 That's not the intent of managing this fishery. So we need to stress that point. You know, subsistence is a 23 big issue in all of our lives and if we don't protect 24 25 subsistence I might as well not be sitting here talking 26 to you. So we need to address that. 27 28 Tom. 29 30 MR. KRON: Yeah, this is Tom Kron. And 31 hello, Charlie, are you still on the phone, Charlie? 32 33 MR. LEAN: Yeah, hi, Tom. 34 35 MR. KRON: Hi. You've been doing king 36 crab work here in Norton Sound for over three decades, 37 I think you're the local expert. Would you be 38 available, if there is a letter, and a decision is made tomorrow by this Council to do a letter, would you be 39 40 available to work with Karen to help her put together the biological information for the STC at the North 41 42 Pacific Fishery Management Council? 43 44 Thank you. 45 46 MR. LEAN: Yeah, I am and, yeah, four 47 decades, not three. 48 49 (Laughter) 50

Page 39 MR. BURCH: Mr. Chair. This is Mark 1 2 Burch at the Department of Fish and Game in Palmer. 3 4 ACTING CHAIR GRAY: Go ahead. 5 6 MR. BURCH: Yeah, I just wanted to let 7 you know that I heard a lot of the discussion here and 8 unfortunately I wasn't able to hear all of it and I have not been able to connect yet with Jim Menard to 9 10 find out if he'll be available tomorrow, and under 11 relatively short notice, I just heard about this request yesterday, but I just wanted to let you know 12 13 that we're working on that and I'll let him know what's 14 generally happened and what to expect for tomorrow if 15 he's available. 16 17 Thank you. 18 19 ACTING CHAIR GRAY: You're a God-send, 20 I sure thank you for digging into this. 21 22 And, you know, you can tell Jim we're 23 not going to beat up on him. 24 25 (Laughter) 26 27 ACTING CHAIR GRAY: So.... 28 29 MR. BURCH: I'll tell him that and I'm 30 sure he'll appreciate it. 31 32 ACTING CHAIR GRAY: Yep. Yep. You 33 know, the big.... 34 35 MR. BURCH: Thank you. 36 37 ACTING CHAIR GRAY:thing this 38 Board's interested in is subsistence, and, you know, 39 that's the bottom line, is I -- I per se don't want to take over this fishery and have the Feds manage it, but 40 41 I don't mind shoving it down their throat if we 42 subsistence users can't get what we want. 43 44 So life goes on. 45 46 And thank you, again, for trying to get 47 a hold of Jim. 48 49 So I think we've got somebody waiting 50

Page 40 1 that -- Rick somebody is he on the phone? 2 3 MR. THOMAN: Rick Thoman is here, yes. 4 5 ACTING CHAIR GRAY: Awesome. 6 7 Okay, Charlie, I appreciate you taking 8 time to meet with us and tomorrow we will cross the bridge about a letter and thank you for all your 9 10 efforts in trying to protect subsistence for us. 11 12 MR. LEAN: Thank you, and you're 13 welcome. I'll talk when we're back in town. 14 15 ACTING CHAIR GRAY: Okay. Thank you 16 again. So the next guy is Rick Toman -- Thoman, Rick 17 Thoman. Are you the quy that puts all this stuff out on Facebook on weather change and stuff? 18 19 20 MR. THOMAN: I do. I do put stuff up 21 as well as my colleague Brian Brettschneider. 22 23 ACTING CHAIR GRAY: Yeah, I think 24 you're the guy I see on Facebook or something all the 25 time, good job. 26 27 So you've got the floor, sorry we got 28 so wrapped up in this other crab issue and kind of went 29 into your time but, anyway. 30 31 MR. THOMAN: No problem at all, Mr. Chair. Let me ask, does -- do folks have the slides 32 33 that I sent for this meeting? 34 35 ACTING CHAIR GRAY: So I see something on the wall behind us so I think we do have something 36 37 -- somebody's going to run a computer and I guess 38 you'll be doing the talking. 39 MR. THOMAN: Okay. 40 41 42 ACTING CHAIR GRAY: So.... 43 44 MR. THOMAN: And it should say Seward 45 Peninsula Climate Review. 46 47 ACTING CHAIR GRAY: It sure does, yep. 48 49 MR. THOMAN: All right. The miracle of 50

Page 41 1 technology. 2 3 ACTING CHAIR GRAY: Okay, you got the 4 floor. 5 6 MR. THOMAN: Okay, thank you very much 7 and good morning everyone and thank you for letting me 8 take a little bit of your time. I've been asked to give kind of a review of what's happening with climate 9 10 in Western Alaska and I also will throw in a little bit 11 of what the future may hold. 12 13 So on slide number 2 there, just a 14 quick overview of what most of this -- most of this, of 15 course, you already know, in Western Alaska, it's warmer than it used to be, it's wetter than it used to 16 17 be, sea ice is decreasing, our oceans are warming and 18 the future is short to bring more of all of these. 19 That is a certainty. 20 21 On slide three is just a graphic 22 showing the annual average temperature at Nome for the 23 last 95 years and the way I like to do these, the red dots there are the 10 warmest years, the blue dots are 24 25 the 10 coolest years and the green line is just kind of 26 the running average, the smooth average. And, of 27 course, as everyone knows, the last few years have been 28 all exceptionally warm. I would point out that three 29 of the last six years have been warmer than any year 30 was in Nome prior to 2013. So it's not just a one off warm spell. It's not like we don't have cool times and 31 32 this has been a chilly, if not an extreme winter for Western Alaska compared to the historical record, but 33 34 the trend is up. And importantly and I think this is 35 going to become really important for subsistence. 36 You'll notice there on the far right hand side of the 37 graphics, those last few years that have been very warm, the red dots there right at the right edge of the 38 plot. Those are temperatures right around freezing, 39 40 the average annual temperature and that, of course, has 41 massive ecosystem importance. 32 fahrenheit is not 42 just another number on the graph because that 43 represents the melting point of freshwater. As the 44 ecosystem crosses that there is going to be many 45 changes associated with that, whether it's melting 46 permafrost or just the underlying that, the changes in 47 seasonality. 48 49 On the next slide, is the average 50

Page 42 precipitation, again, the last 95 years, and so here 1 2 again the green dots are the wettest years, 10 wettest, 3 and the orange dots are the 10 driest years. 4 5 Now, here the trend is not quite so 6 dramatic as with precipitation but it is definitely up 7 over the last, oh, say since the mid'70s, Alaska 8 averaging about 15 to 20 percent more precipitation for the year, this is annual precipitation. And 9 10 importantly there hasn't been a top 10 driest year now 11 since the mid-90s whereas since then three of the 10 12 wettest years have occurred, including, of course 2019 which was one of the top 10 wettest years. 13 14 Precipitation, of course, is much more spacially 15 variable than temperature, while the absolute values of 16 temperatures of course vary over short distances, their 17 departures from normal are smoother precipitation, not 18 that way. So we have more availability there and with 19 time we do expect that wetting trend to increase, but, 20 again, with the potential for changes in seasonality. 21 22 On the next slide here I just thought 23 I'd post you here the latest on the Bering Sea ice 2.4 extent from this past weekend. The blue line is this 25 year, the red and green lines are the previous two 26 years. Obviously there's way more ice. At least in the two dimensional, just the horizontal extent of ice. 27 28 But I do want to point out, the blue line there, it is 29 above that thick black line, which is the long-term 30 average value but it's not particularly fall above 31 that, and that comes in spite of the very cold weather 32 we've had at least since mid-December. Now, because if you trace back that blue line, back in through to the 33 34 late last year, into December, of course sea ice was 35 very low to get going reflecting the very warm ocean 36 temperatures that we had, also the weather pattern was 37 not good ice making weather for the Bering Sea through 38 mid-November. And so the ice that we have out there is likely to be thinner than previous years that had this 39 40 much ice. So, of course, that thinner ice is more 41 subject to disruption by storms and even without the 42 storms, if you got thinner ice, of course, it will melt 43 sooner. I will point out on this year, you'll notice 44 that dip in sea ice that occurred in mid-January, 45 fairly substantial dip, we lost almost a quarter of the aerial extent of ice. And, you know, that was the 46 result of two run of the mill storms, and that was 47 48 reflecting that those very typical storms acting on 49 very thin sea ice. So, yes, the aerial extent looks 50

good, but we have every reason to believe that it's 1 2 quite thin. Having said that, we're in better shape, 3 of course, ice wise, than we have been the last two years. But the fact that we're a little bit above the 4 5 average probably is somewhat deceptive in that the ice 6 is not as thick as it would have been in previous 7 years. 8 9 On slide -- the next slide there. An 10 aerial illustration of the ice on the left is from 2013 11 on March 4th. That was pretty typical ice extent. There's probably -- normally there would have been more 12 ice in Bristol Bay than on that 2013 picture but, 13 14 otherwise, fairly typical and then last year on the 15 same date, of course, there was almost no ice in the 16 Bering Sea except for what had gotten packed up by the 17 incessant south winds on the south side of the Seward 18 Peninsula and south side of St. Lawrence Island and 19 then over on the Russian side in the Gulf of Anadyr and 20 on the western side of the Bering Strait there. But really hardly any ice. Obviously this year looks a lot more like 2013 but 2018 and '19, of course, just 21 22 23 amazingly, amazingly different than anything we've seen 24 in the past. 25 26 On the next slide, I wanted to show you this. As everyone on this call is aware, that we are 27 28 seeing big changes in seasonality in the sea ice. And 29 this just shows the change through the course of the 30 winter, basically the cold season, from October through 31 June, how the sea ice over the last 41 years has 32 changed in the course of a year. Again, this is just 33 the sea ice extent. And what we're seeing here is what 34 everyone knows, we have much less ice early in the 35 season than we used to have. The trend is strongly 36 down here. This trend is relative to the average over 37 the course, for whatever time of the year is indicated, and so really while mid-winter is decreased, you know, 38 January, February, March, even into April there's not 39 been dramatic changes. Very dramatic early in the 40 winter, 40 to more than 100 percent decreases in the 41 42 ice extent. And the same in the spring, once the melt 43 season gets going, May and then through June, we have 44 much less ice now, historically, the trend has been 45 down but not -- even with the last two winters before 46 this, with their very low ice extents, less of a trend in mid-winter but this change in seasonality in ice is 47 48 very important, of course, going forward for subsistence activities. 49 50

The next slide just illustrates when 1 2 the Bering Sea loses most of its ice, this -- again, 3 this is from the satellite derived daily sea ice extent data that starts in the fall of 1978, so we've got 41 4 5 years here now, and I picked a date -- the first date 6 in the spring when ice basically gets down to less than 7 the area of the Seward Peninsula. And you can see 8 that, you know, from the start of the satellite record really up until the late '90s, you know, sometime 9 10 around Summer Solstice, some years later, some years a 11 little bit earlier, was about when the Bering Sea 12 became largely ice free. And that has really changed dramatically in the last few years. And you'll notice 13 14 there on the far right hand side of that slot, every 15 single year since 2015 the ice has been basically gone from the Bering Sea earlier than it was in any year 16 17 before. It's not just, oh, the last couple of years 18 have had early melt outs, the last five have been, not 19 just early, much earlier than not only the historical 20 average and earlier than any other year. Really just 21 dramatic, dramatic change in a very short time. We can 22 all remember the late 1990s, that wasn't that long ago. 23 And instead of the Bering Sea becoming ice free around 24 Summer Solstice we have lost a month now with the green 25 line there being the smooth average, we've lost almost 26 a month in the typical melt out date of Bering Sea ice. 27 Very dramatic. 28 29 Now, I do want to touch on the Chuckchi 30 Sea as well. Chuckchi Sea north of the Bering Strait is, of course, also experiencing very dramatic changes 31 32 in their sea ice. And one of the ways that directly affects what happens farther south is freeze up in the 33 autumn. Basically to get ice to move south through the 34 35 Bering Strait and to St. Lawrence Island and beyond, we 36 really need the Chuckchi Sea to become mostly frozen 37 over. And just like that Bering Sea melt out plot, this is showing this very dramatic change in when the 38 Chuckchi Sea becomes almost completely iced over, about 39 40 change of about three weeks since the early 1990s. 41 This past winter we did not have the Chuckchi Sea 42 become more than 95 percent ice covered until December 43 22nd, and that is the third latest in the satellite 44 record and the top three earliest have all been in the 45 last four years. Again, very dramatic change over a 46 very short period of time. 47 48 Turning now to the oceans and the warm 49 season. Everyone knows that our oceans have been 50

extremely warm and last year was the warmest for the 1 2 northern Bering Sea. This is a plot of the average May 3 through September, ocean surface temperature, basically from the Pribilofs northward here, calling this the 4 5 northern Bering Sea. But again the red dots are the 10 6 warmest and you can see every year since 2014 is 7 amongst the top 10 warmest years for Bering Sea ocean 8 temperatures going back to 1900 and we haven't had a 9 cold -- a cold season there since the early 1970s. The 10 top 10 coldest. Really very -- again, very dramatic. 11 And the impacts to fisheries, to subsistence activities for species in the ocean, you folks were just talking 12 about that prior to the start of this, very important 13 14 subsistence impacts and this is not going to change. 15 16 One of the advantages, of course, of 17 satellite derived data is when things are working we 18 can get continuous time series of things that would be 19 hard to measure. Here is one of them on the next slide 20 there. We have western Norton Sound sea surface 21 temperatures. This is from a point about 30 miles 22 south of Nome. And so kind of like those Bering Sea 23 ice extent plots, here you have every year plotted in 2.4 kind of the grey lines since 1982 and the red line is 25 last year, the green line is the year before and the 26 thicker black line is just the long-term average. And you can see, as you know, both 2018 and '19 extremely 27 28 warm. For parts of the year warmer than any year since 29 this goes back to 1982, which really captures all of the warmest years. If we had this kind of detail back 30 to 1900 those green lines would look effectively the 31 32 same as the last two years would be, excessively warm. 33 34 This is just a point south of Nome, 35 there are differences across the region and you can see 36 that on the next slide here with -- this is just the last six years since 2014, when we've had these very 37 38 warm years, this is just the larger view around Alaska 39 of the average warm season temperature departure from 40 the long-term normal. And your eye, of course, is 41 immediately drawn to most of the Bering Sea over the 42 last six summers, has been much warmer than normal and 43 eastern Norton Sound as well as Kotzebue Sound, have 44 been excessively warm for the warm season. You'll 45 notice there is a small area there, kind of southwest 46 of Diomede north of St. Lawrence Island that actually 47 has not been very much warmer than normal, it's been a 48 little bit but not much. But otherwise, the whole 49 Bering Sea, the whole Chuckchi Sea has been 50

significantly warmer. And, again, this is over six 1 years. These are extremely large departures for --2 3 these would be -- these would be very large departures for a single year, much less a six year average and 4 5 really reflects how our oceans are warming. 6 7 Now, as I've mentioned, we do see some 8 variability in both the timing and the aerial extent of this warming. This is just a plot from eastern Norton 9 10 Sound in this case, so this is a point about 30 miles 11 to the west of Unalakleet and the red line is August average sea surface temperatures, the blue line is June 12 13 and you can see, while August has warm some, the 14 biggest change really is in June where temperatures now 15 are not only much warmer than they used to be in June, but you'll notice the last several years would have --16 17 June temperatures would have been typical for August 18 temperatures prior to the mid-90s. The warming is 19 really very, very dramatic. Some of this is tied to 20 sea ice loss, some of this is also tied to warm water 21 inflow from the rivers into eastern Norton Sound. 22 23 The next slide does show how this isn't quite the changes -- the monthly change in sea surface 2.4 25 temperatures is not uniform across the region. The way to read this chart, the kind of light blue colors are 26 eastern Norton Sound again, that point about 30 miles 27 west of Unalakleet, the red line is the point about 30 28 29 miles south of Nome, and then the purple is a point I 30 called it the southern Bering Strait, it's about 40 miles say northeast of Savoonga. So you can see that 31 32 big warming in June and July in eastern Norton Sound. 33 Similarly for the point south of Nome there. But then 34 the warming tails off in the late summer, August and 35 into September for the Norton Sound points, but you'll 36 notice for the southern Bering Sea, it actually -- the 37 largest change over the last 38 years is actually in September, it changes earlier in the summer, at least 38 southern Bering Strait are less in the spring and more 39 40 in the fall, whereas in Norton Sound the biggest 41 changes are in early summer. Consistent with earlier 42 sea ice loss and warm water inflow from the rivers. 43 Again, very -- I think these are very important changes 44 for subsistence considerations, this change in 45 seasonality. 46 47 Last couple of slides will just be to 48 peer into the future. I've got a couple of plots here. 49 50

One of the big confusions with climate 1 2 models is that you often see in the media things like, 3 oh, you know, this happened and the climate models weren't forecasting that until 2060, that's actually 4 5 very misleading because what the climate models always 6 are forecasting are things like long-term averages and 7 not the year to year variability. 8 9 So what I've done here is I've taken 10 temperature for basically the Nome area, the green dots 11 are the historical past and in this case, on this slide, the orange line and the orange dots -- orange 12 line is the future projection assuming that the world, 13 14 not just the United States, but the world took fairly 15 aggressive actions to reduce carbon emissions and transition to less of a fossil fuel burning economy. 16 17 And then the orange dots just superimpose a -- the same 18 kind of year to year variability that we see in the 19 historical record. So each of the green dots is an 20 annual temperature just like we started the 21 presentation with and the orange are just what -- if we 22 have that orange, what would the year to year 23 availability look like assuming it's the same as in the 24 past. Now, you can see that we still have years that 25 the average temperature is below freezing in this 26 aggressive mitigation strategy through the rest of the century, although the second half of the century, those 27 28 get pretty unusual and we do get some years, certainly 29 by mid-century significantly warmer than any year that 30 we've seen in the past century in Nome. 31 32 And, again, this is a fairly aggressive 33 global mitigation strategy. 34 35 The next slide is what perhaps is a 36 worst case scenario, this would be -- isn't guite business as usual but this -- and I hesitate to use the 37 38 word, worst case, worst is pretty bad, we may not know what worst is, but this would be a pretty dire 39 40 scenario, and in this case you can see we don't ever 41 get below freezing years again by after -- much later 42 than 2060 and we wind up with a climate, an average 43 temperature by the 2080s that's similar to present day 44 Homer, and you think about how different the climate is 45 in Homer compared to the coastal Seward Peninsula, but 46 that -- in this worst case scenario, that's the kind of thing that would -- that we would be looking at. Of 47 48 course it's not exactly analogous, Homer's a little 49 different geographic situation, but just looking at 50

Page 48 average temperature, that's what we're looking at. 1 2 3 So just in summary, our oceans are 4 warming and the climate warming, both in the oceans and 5 the atmosphere, that is locked in for decades to come 6 because of all the heat in the ocean. If we were to 7 disappear from planet Earth today, the climate would 8 continue to warm because there is so much excess heat that didn't used to be there in the oceans that would 9 10 have to get worked out. 11 12 I've stressed it through this. I think 13 it's really important. One of the biggest impacts 14 aren't going to be just increasing precipitation or 15 average annual temperatures going up but these seasonal 16 shifts when -- when things happen in the environment 17 are shifting already, everyone knows it, and that is 18 going to continue to happen. 19 20 Sea ice is going to continue to 21 decline. 22 23 We just had a recent paper out that suggests that the kind of ice conditions that we saw 24 last year and in 2018, by the time we get to the 2040s, 25 those may be typical ice seasons and by the time we get 26 27 to the 2060s they may be on the high end of sea ice conditions in the Bering Sea. Those would be, of 28 29 course, tremendous, tremendous ecological and 30 subsistence impacts for the region. 31 32 Having said that, the oceans are going 33 to continue to warm, that is a certainty for the -- for 34 our purposes for the future. 35 36 So with that I'll stop there and be 37 happy to take any questions for you. 38 39 (Pause) 40 41 ACTING CHAIR GRAY: Anybody have any 42 questions. It never ends. I was on the phone dealing with another meeting I got to be in. Anybody have any 43 44 questions or comments or thoughts for the quy that 45 knows the weather. 46 47 MR. OYOUMICK: With this being a fact 48 that we have climate change did anybody open up any of 49 those fish that went belly up to make sure that it was 50

Page 49 1 from climate change? 2 3 ACTING CHAIR GRAY: I know I didn't. 4 5 MR. OYOUMICK: I asked the question 6 because I didn't. 7 8 MS. DEATHERAGE: Mr. Chair, this is 9 Karen. 10 11 ACTING CHAIR GRAY: Okay, go ahead, 12 Karen. 13 14 MS. DEATHERAGE: Thank you, Mr. Chair. 15 Leland, are you referring to some of the fish that were 16 found dead along the banks? 17 18 MR. OYOUMICK: Yes, Ma'am. 19 20 MS. DEATHERAGE: My understanding is 21 the studies that I've seen out there anyway, some of 22 those deaths were attributed to the warming and some 23 fish were believed to actually have had heart attacks 24 as a result of the warming waters. 25 26 Thank you, Mr. Chair. 27 28 ACTING CHAIR GRAY: Okay, thank you. 29 30 And, Doug, you had a comment. 31 32 MR. KATCHATAG: Yeah. Since you're 33 doing climate change studies are you taking samples 34 from the land and the waters as to what's coming out of the permafrost that's been frozen for millions of years 35 and also have you made any comments or anything on the 36 37 ice that was broken up in the Arctic by the Russians 38 and the whole world, going around from south to north, going all the way around from the Bering Sea to the 39 40 Atlantic Ocean. And, you know, that the ice is moving 41 south, so is everything, and that'll tilt the Earth. 42 43 Have you made any comments about that. 44 45 MR. THOMAN: So thank you very much for 46 your questions. 47 48 As far as what's coming out of the 49 thawing permafrost that is very important, of course 50

thawing permafrost is a potential -- potentially will 1 release methane, which is a very powerful greenhouse 2 gas. It is a fairly short lived gas in the atmosphere, 3 but it is much more potent than carbon dioxide, and, 4 5 that, unfortunately in the older -- the older versions 6 of the climate models, methane was not handled, that 7 has improved dramatically. We'll see how that works 8 out. So we are well aware that that could be a 9 significant player. 10 11 Sea ice, of course, on the Arctic scale 12 is decreasing very rapidly and is probably lower now in 13 the late summer than it's been for a number of thousands of years. 14 15 16 Impacts of shipping are, of course, 17 under -- that's an area of considerable study. Many of 18 the ships, of course, that -- I think at this point, 19 all of them that are doing the Bering Sea to the 20 Atlantic are going through the Northwest Passage in the 21 late summer and, of course, there's not much of those 22 that are ice breakers, they're of course ice hardened. 23 The northern route, or the Northeast passage, of course along the -- mostly along the Russian coast, which is, 24 25 of course, of considerable concern for Alaska and 26 subsistence activities since every ship that takes the northern Siberian and Kamchatka Coast route has to go 27 28 down through the Bering Strait. Again that is --29 that's mostly during the ice free season, but there's 30 certainly lots of interest on the Russian side to push 31 that season out as well. 32 33 ACTING CHAIR GRAY: Go ahead. If you 34 want to ask a question I'm curious how you can relate 35 it.... 36 37 ANITA: Yeah, I want to.... 38 39 ACTING CHAIR GRAY: You have to come to 40 the counter. 41 42 MR. THOMAN: I'm sorry I couldn't hear 43 there, was there a question? 44 45 ANITA: The question is actually for the room. I wonder from the context that has just been 46 described, in the continuum of things and what has 47 48 happened up until now, particularly recently, and where 49 it seems to be going, how you all or some of you all 50

Page 51 are experiencing this. You've talked about crabs, et 1 2 cetera, and where do you see this going in terms of the 3 -- the situation of people having a protein supply. 4 5 Thank you. 6 7 ACTING CHAIR GRAY: Okay. Let's --8 again, when we break out of the session you can talk to the individual people, we're dealing with somebody on 9 10 the telephone and if you want to pry at individuals, 11 you can do it.... 12 13 ANITA: I'm just asking..... 14 15 ACTING CHAIR GRAY:you can do it 16 on the.... 17 18 ANITA: I'll just ask it a different 19 way. 20 21 ACTING CHAIR GRAY: Okay, if you can 22 relate.... 23 24 ANITA: Sir, thank you very much for 25 your remarkable presentation. So I wonder how you see 26 this unfolding in terms of both commercial, and 27 particularly subsistence off shore, whaling, hunting, 28 walrus, seal, fish, crab. 29 30 Thank you. 31 32 ACTING CHAIR GRAY: State your name. 33 34 ANITA: (No microphone) 35 36 MR. KIRK: Turn the mic on. 37 38 MR. OYOUMICK: Microphone. 39 40 ANITA: (No microphone) 41 42 MR. KIRK: Mic. 43 44 REPORTER: So you need to turn the 45 microphone back on. 46 47 ANITA: Jeez. 48 49 REPORTER: It won't be heard if you 50

Page 52 1 don't, or go in the record. 2 3 ANITA: Is it on? 4 5 REPORTER: Yes, it is, go ahead. 6 7 Forgive my incompetence. My ANITA: 8 name is Anita Parlow, I'm from Washington, D.C. I worked on a project with the Denali Commission, the 9 10 Tanana Chiefs and the Port of Nome over the last two 11 years. I used to cover war zones. 12 13 Thank you. 14 15 MR. THOMAN: And this is Rick Thoman. 16 Was that question to me? 17 18 ACTING CHAIR GRAY: Yes, it was. 19 Because if she wants to get questions answered from the 20 Board members, I've directed her to do it off..... 21 22 MR. SEETOT: Our Board time. 23 24 MR. KIRK: Yeah, our Board time. 25 26 ACTING CHAIR GRAY:record, off 27 our Board time that we're talking here so. 28 29 MR. THOMAN: Okay, thank you, Mr. 30 Chair. I am a climate person, not a biologist or a subsistence hunter so I would defer to the experts on 31 32 those particular issues. But we can -- what I can say 33 from my expertise is it is a certainty that over the 34 next couple of decades that the oceans on that time 35 scale will continue to warm. It doesn't mean that 36 every year is warmer than the last. Sea ice will 37 continue to thin. Sea ice extent will continue to 38 decline on that scale as this year is a good example, 39 it's not -- every year isn't less than the previous 40 year. 41 42 The changes in seasonality with less 43 ice in the fall, earlier ice loss in the spring is 44 going to continue as well. 45 46 Land changes will continue to occur, those may be a little different. For instance, we may 47 48 wind up with -- not so much this year, but the last 49 couple of years, with more snow on the land that takes 50

Page 53 longer to melt, just because we've got water, lots of 1 2 water during the cold season instead of more ice, and 3 so there's more water vapor available for storms that come along to dump snow, so that, again, could be a 4 5 change in seasonality, could be also increased rain on 6 snow events in winter, which could have significant 7 impacts on things like reindeer and caribou. 8 9 So the environmental trends that we 10 have seen, we need to plan that those are going to 11 continue a pace. It's not that we're at a new normal, but rather that the changes that we've seen, those 12 kinds of changes will continue. 13 14 15 ACTING CHAIR GRAY: Okay. Any other 16 comments, concerns, questions for Rick. 17 18 (No comments) 19 20 ACTING CHAIR GRAY: Well, if there's no 21 other questions, Rick, I don't know if you remember, I 22 think you're the one that gave a presentation at the 23 caribou meeting, Western Arctic Caribou meeting. 2.4 25 MR. THOMAN: Yes, I did. 26 27 ACTING CHAIR GRAY: Yeah, and I'm the 28 beluga guy that came and talked to you about coming to 29 the beluga meeting and doing a report with us, so just 30 so you know, I guess. Because I asked you earlier if 31 you were the guy putting stuff on Facebook and so on 32 and so forth and your work, you've done a really great 33 job. 34 35 MR. THOMAN: Great, thank you very 36 much. And I wish I could have been there with you 37 today, busy week, if you'd picked a different week 38 would have been, but I appreciate the opportunity to 39 speak with you and happy to help any way I can. 40 41 ACTING CHAIR GRAY: Okay, well, thank 42 you so much for taking the time and enlightening us on 43 what you think we're going to see in the future. 44 45 MR. THOMAN: Okay, great. Well, thank 46 you. 47 48 ACTING CHAIR GRAY: Yep, bye. So next thing on the list is public and tribal comments. 49 50

Page 54 1 Austin, do you want to come back after 2 lunch or do you want to go now. 3 4 MR. AHMASUK: Now. 5 6 ACTING CHAIR GRAY: You'll go now, 7 okay. So we're going to let Austin get up and talk and 8 he works with Kawerak but he can introduce and tell us 9 what he's all about. 10 11 MR. AHMASUK: Yeah, thank you, Mr. Chairman. A couple of you have mentioned BLMs Resource 12 13 Management Plan. 14 15 And at Kawerak, several Staff, mostly 16 myself have dedicated a lot of time towards addressing 17 resource management plan issues, the BLM resource 18 management plan for the Bering Sea Western Interior. 19 Some of you are aware of it. 20 21 I serve as Staff person for a brand new 22 tribal commission called the Bering Sea Western Interior Tribal Commission and its focus is entirely 23 24 this BLM resource management plan that impacts our 25 region directly from Elim down to Stebbins. I work with other folks in other Alaska Native organizations, TCC 26 27 and AVCP on this issue. And this tribal commission was 28 formed because of the RMP and issues that some of you 29 have identified related to mining. 30 31 Just a little bit of background, I 32 won't take too much time. 33 34 But the scoping for the resource 35 management plan began in and around 2015 and during 36 that time a whole suite of issues were identified. But 37 what resulted in 2019 was something very, very 38 different from scoping. So during scoping, the scoping 39 comments were in one area and then the eventual 40 resource management plan looked totally different from 41 the scoping. And so what Kawerak did, beginning in the 42 early part of 2019, we began working with communities 43 to address these issues and hopefully mitigate BLMs 44 very drastic change in land management for that area, 45 which extends from Inglutalik all the way down to the Yukon Mouth, over to the Yukon, roughly some 13 million 46 47 The BLM RMP is over 3,000 pages. Over the acres. 48 course of several months Kawerak identified 100 -- over 49 100 really significant failures and criticisms of the 50

resource management plan. BLM did not provide adequate 1 2 public process. They did not provide meaningful tribal 3 involvement. BLM did not have a Native person on the 4 development team. They never had a tribal liaison on 5 the development team. They never had an anthropologist or an archeologist on the development team. 6 And so 7 what we saw in 2019 was something that concerned a lot 8 of communities. And so this tribal commission was 9 formed. 10 11 If you want to know what Kawerak's comments are, they're published on our website. But 12 13 each of the tribal coordinators -- each of the tribes 14 in the region received copies of the joint comments 15 that were submitted over the course of the resource 16 management plan. 17 18 Again, our comments were very 19 There are people actively working on this significant. 20 resource management plan. The commission has met with the BLM director once. It's met with BLM Staff a 21 22 number of times. Some of you have gone to some of 23 those consultation meetings. You know that they're very difficult. The BLM has required, throughout this 24 25 entire RMP process for tribes to appoint specific 26 advisors just so that those advisors can have some sort of say so or advice to tribes, like myself. Other 27 tribes have formally requested cooperating agency 28 29 status and so there are now presently some 11 or so 30 tribes that are cooperating agencies which have 31 contributed to the plan but they have not had 32 meaningful involvement. So for instance, from the time 33 that the RMP was issued back in June to the time when a 34 pre-public draft was issued to the cooperating 35 agencies, tribes only had four days to comment on a 36 very complex resource management plan. And so the 37 public process simply has been very frustrating. Kawarek and tribes that commented on the BLM resource 38 management plan, we didn't pull any punches, we 39 40 identified those deficiencies as significant failures 41 of BLM to provide for public process. 42 43 So I just wanted to assure you that 44 Kawarek Staff are working very hard to try and make 45 sure that communities are well represented in this 46 phase of the RMP. 47 48 BLM tells us that sometime in --49 sometime this year, sometime in 2020 or perhaps as 50

Page 56 early as August the BLM will issue a finalized 1 environmental impact statement. 2 3 4 That's all I have, Mr. Chairman. 5 6 Thank you. 7 8 ACTING CHAIR GRAY: Any questions. 9 10 Go ahead. 11 12 MR. KIRK: During -- sometime in 13 August, I think it was in August, Senator Dan Sullivan 14 came to Stebbins and I brought up this issue with BLM concerning the mining and he said he would have his 15 16 Staff look into it. I'm wondering can Kawarek contact 17 Dan Sullivan's Staff and get their support on this 18 issue concerning mining in that area. Because subsistence is a big issue and we need all the support 19 20 we can get. So I brought it up to Dan Sullivan and his 21 Staff at Stebbins, Senator Sullivan was there. Can you 22 guys check into that? 23 24 MR. AHMASUK: Yeah, well, thank you. I will tell you that at every stage of every comment 25 26 period Kawarek has courtesy copied Sullivan, Murkowski 27 and Young on every single stage so they're aware of our 28 comments. 29 30 The problem with this RMP is that it's larger than Alaska Congressional Delegation politics. 31 It appears that it's the Trump Administration, which 32 has requested fasttracking of things of -- Federal 33 34 decisions like this. It appears that it's even higher 35 than them. 36 37 MR. KIRK: Senator Sullivan also 38 notified us that us on his Staff, he has a Native American lawyer that's working for him that's also 39 working on issues concerning indigenous lands and 40 41 tribes throughout the nation so maybe you could get a 42 hold of him. 43 44 MR. AHMASUK: I will, thank you. 45 46 ACTING CHAIR GRAY: Any other 47 questions, comments. 48 49 (No comments) 50

ACTING CHAIR GRAY: So before you go, I 1 2 heard rumors through scuttlebutt and maybe I'm creating 3 gossip, but there's scuttlebutt of off shore mining down by Elim, which, you know, I hate to see it happen. 4 5 I know Elim people are not very happy about this and, 6 you know, I just want to make you aware of it, I guess, 7 that this thing's out there and I don't know if you can 8 help or whatever, but, you know, it's our region, we've 9 lived here all our lives, and for some outsider from 10 the Lower 48 to come up and mess up our subsistence 11 lifestyle, it's not right. 12 13 MR. AHMASUK: Yeah, thank you, Mr. 14 Chairman. I am aware of the Elim issue. What we 15 should keep in mind, though, is off shore is managed by State DNR, right, and so the area that -- the area of 16 17 the BLM RMP is all on land, right, and it's just BLM 18 managed land so it doesn't impact Native Corporation 19 lands, you know, directly. Although where BLM lands and Native Corporation lands adjoin, you know, maybe 20 21 there's issues there but -- so, yeah, but I'm aware of 22 the Elim issue. 23 24 ACTING CHAIR GRAY: Doug. 25 26 MR. KATCHATAG: Yeah, Austin, how many mining developments are going to take place within the 27 28 next 10 years in our Bering Straits region alone. I 29 know of three, four of them so far. 30 31 MR. AHMASUK: That's a tough question. 32 On the Seward Peninsula there are over 1,700 State 33 mining claims. Those are State mining claim leases. 34 There are many more thousands of acres of historical 35 mining claims, mineral surveys that people can mine, 36 right. In the BLM RMP area there's very little mineral 37 potential. There are actually only two resource data files for any kind of mining potential in the entire 38 39 Bering Sea portion of the RMP, Upper North River and in 40 the Nulato Hills. But if you look at what happened in 41 the Yukon area, right, where they turned on BLM leases, 42 what happened was that Federal mining claims became 43 entered into the record, or Federal mining claims 44 became part of the land management process. For the 45 Bering Sea portion of the RMP mining has always been on 46 a case by case basis, so -- but if you -- if the BLM 47 turns on the land management imperative to open up 48 mining and oil and gas leasing, it's hard to say what 49 could happen. 50

Page 58 The mining -- all the 1 MR. KATCHATAG: 2 mining that's taking place will kill all our sea 3 mammals, all our fish, and all our land. It's not only 4 just gold but other things. 5 6 MR. AHMASUK: Yes, thank you. 7 8 ACTING CHAIR GRAY: Ron. 9 10 MR. KIRK: I have another concern. 11 This mining is going to -- it is a big issue, we need to put a stop to it somehow. 12 13 14 My concern is the land. 15 16 Once BLM authorizes mining in the land, 17 the caribou and my reindeer herd from about three 18 entities in Stebbins along with Tom Gray's reindeer 19 herd, whoever owns reindeer, if they're mining on BLM 20 lands they're destroying our lichen. And once our lichen is gone, our food supply on our table is gone. 21 22 We no longer have the protein necessities that we need 23 to sustain our human way of life, our body of life. So it's very important that we get on this issue because 24 25 you're not only destroying the lichen for the reindeer you're destroying the food for the moose, which also 26 27 lives on the land. 28 29 Just one comment, Mr. MR. AHMASUK: 30 Chairman, and I'll maybe shut up. 31 32 The area of the Bering Sea portion of 33 this RMP, as you know, is incredibly remote. And so monitoring and enforcement is probably going to be 34 35 extremely difficult and maybe even non-existent. So 36 that's one of the concerns that this commission has, 37 this new tribal commission, is monitoring and 38 enforcement. 39 40 ACTING CHAIR GRAY: Okay. Well, if there's no other comments I do have to give Tom a lot 41 42 of credit here, he's been listening through this whole process and I'm sure he's ankle deep or knee deep in 43 44 this whole issue so I don't know if you want to respond 45 or talk later during the..... 46 47 MR. SPARKS: I can during agency 48 reports. 49 50

Page 59 ACTING CHAIR GRAY: Yeah, yeah, if you 1 want to talk about it then you can talk about it, and 2 3 these guys can pull teeth getting it. 4 5 Okay. If -- thank you, Austin. 6 7 MR. BURCH: Mr. Chair, this is Mark 8 Burch from the Department of Fish and Game. 9 10 ACTING CHAIR GRAY: Yep. 11 12 MR. BURCH: Yeah, I was wondering if you could ask Tom, perhaps, to give me a call during 13 14 the break, at lunch or whenever it works for him. 15 16 ACTING CHAIR GRAY: Tom -- we have 17 three Tom's in the room -- four Toms. 18 19 (Laughter) 20 21 MR. BURCH: Oh, the coordinator, the 22 serving coordinator, I'm sorry. 23 24 (Laughter) 25 26 ACTING CHAIR GRAY: Okay. So he heard 27 you, do you have a phone number for him to call? 28 29 MR. BURCH: I don't know if he has it so 30 I better give it to him I suppose. 31 32 ACTING CHAIR GRAY: Yep. 33 34 MR. BURCH: 907-863-8518. 35 36 ACTING CHAIR GRAY: An who -- you were 37 with Fish and Game, or who? 38 39 MR. BURCH: Yes. I'm the liaison from 40 the Department of Fish and Game. 41 42 ACTING CHAIR GRAY: Awesome. Okay. 43 44 Sounds good. 45 46 MR. BURCH: Thank you. 47 48 ACTING CHAIR GRAY: Okay, thank you. I 49 think it's lunch time. What time do you guys want to 50

Page 60 come back from lunch. 1 2 3 (Pause) 4 5 ACTING CHAIR GRAY: Okay, we'll come 6 back from lunch at 1:30. 7 8 (Off record) 9 10 (On record) 11 12 ACTING CHAIR GRAY: I'm going to call 13 us to order and I need to find out where we're at here. 14 I think -- I think we -- public and tribal comments. 15 16 Do we have anybody on line, on the 17 telephone. 18 19 MR. BURCH: Hello, Mr. Chair, this is 20 Mark Burch with the Department of Fish and Game and I'm 21 still here. 22 23 ACTING CHAIR GRAY: Oh, you're back 24 again, okay, welcome home. 25 26 (Laughter) 27 28 ACTING CHAIR GRAY: And do we have 29 anybody else. 30 31 32 (No comments) 33 34 ACTING CHAIR GRAY: Okay. Do we -- I'm 35 going to get us back into the meeting again and we are at public and tribal comment on non-agenda items. 36 37 38 Do we have -- go ahead, come on up --39 Roy is going to be a public person. 40 41 MR. ASHENFELTER: Thank you, Mr. Chair. 42 My name is Roy Ashenfelter. I work for Kawarek so this will be a tribal comment on non-agenda item. 43 44 45 And as many of you may already know, and some of you don't, IPOP has been trying to set up a 46 47 mining operation in the Solomon, Safety Lagoon area for 48 the last three years, and that is a real concern to 49 many of us and the people down there that use that 50

place to subsistence hunt for birds, for fish. It's an 1 2 estuary, saltwater/freshwater mix. They've submitted a 3 couple applications and unfortunately for the world 4 they have managed to not complete those applications to 5 the point where the Corps of Engineers has rejected 6 their current application. Now, having said that they 7 could submit another one. They just reject the ones 8 that they were working on, weren't able to get data in 9 by the deadline that the Corps had established. And so 10 right now what they're permitted to do is do what's 11 called an exploration. 12 13 They did exploration last year, this 14 time of the year, they went down there and did some core sampling. We did, through a lot of effort, 15 receive their core sampling data and right now, even 16 17 with geological report -- oh, by the way, IPOP, IPOPs 18 intent to mine in the estuary is to mine for gold. Ι 19 didn't say that at the outset, so their intent there is 20 to mine for gold. The core samples that they managed -- that we finally got data from show no mineralization 21 22 for gold of any kind, even the thing that you look for 23 that gold is in, none of that is in existence. 24 25 What Kawarek has been doing through the 26 Corps of Engineers has been after them, after the Crops, after IPOP and trying to make sure that we're up 27 to date on what IPOP's intent is. They've come back 28 29 with a couple drawings on trying to mine in the 30 estuary. One of the big dilemmas for them is the plume that would be created in mining in the estuary and 31 32 there are some legal requirements, the way I understand 33 it, in that, they could only move so much dirt with the 34 -- with the extraction of plume -- plume that would 35 move out from where they're mining. And fortunately 36 they haven't been able to find a method to mine in the 37 estuary without creating a big plume. So they've come up with a fencing thing and a few other things that may 38 meet their mining standards. So -- or be able to mine 39 40 without creating a plume. 41 42 One of the things that we currently are 43 working on with the Corps is if the drilling samples, 44 the core drilling bits that they're pulling up out of 45 that area show no gold, can the Corps deny them their 46 mining permit, because that's what they're after. 47 48 In the real world, when you're out 49 there mining, at least in Seward Peninsula, where 50

there's real gold and a real miner with real intent and 1 2 knowledge, the reason you do core drilling is to 3 minimize your work as you -- if you got a patent, got 4 so many acres, you go out and do your coring, that 5 coring results directs you to the gold that you're 6 trying to get so when you get down there you could 7 maximize your effort for mining and be able to pay off 8 and maybe get rich finding the gold, that's the general 9 intent behind core sampling. 10 11 So that's where we're at right now. W e 12 are working with Solomon Native Corporation, the 13 Solomon tribe, Bering Straits is on with us, but they 14 -- we, Kawerak has -- and a few other organizations and I believe even APMA, Alaska -- whatever that mining 15 16 organization have all objected to the IPOP doing 17 exploration at Solomon in the lagoon. They've been 18 very persistent. They've got lots of money. They've 19 got several million dollars of mining equipment setting 20 over there. But they've somehow scaled down to a very small operation so we don't -- so that's basically 21 22 where I can give this Board up to date on what's going 23 on that's not part of the agenda, we believe it's really important because whatever they plan to do down 24 25 there will impact subsistence. 26 27 ACTING CHAIR GRAY: Okay. Anybody have 28 any comments or thoughts on what Roy just presented. 29 30 31 (No comments) 32 33 ACTING CHAIR GRAY: So, you know, I think you bring a real important issue to the table 34 35 here and I don't know that we've addressed or looked at 36 this issue. And, you know, granted there are State 37 lands involved and State waters and yadayada but it all ties back to our subsistence lifestyle. And foods that 38 we -- that we're sitting here at the table because of 39 40 that, and they're going to have impacts on those foods. 41 So I would say that it would be smart for us to work 42 with Kawerak in coming up with how can we help this --43 your venture to intercede in this thing. How can this 44 Board, because of subsistence, write letters or be a 45 player in addressing issues. 46 47 MR. ASHENFELTER: So really appreciate 48 that. We'll try to figure out a way to make sure that 49 the RAC is involved. 50

Page 63 As you well know, I didn't speak to 1 2 some of the subsistence uses down there. 3 4 Starting off in spring there's the 5 migratory bird resource that we hunt down there in the 6 spring time. And then shortly thereafter there's the 7 natural fish runs, salmon, chum, pinks, and just a few 8 kings, but they are abundant down there in the 9 resource. As a resource, there is lots of natural 10 freshwater fish. There's also fish that hang out in 11 the estuary where the freshwater/saltwater mix is and that's tomcod and then there's herring. This is an 12 estuary so there's also a few seals that go in there, 13 14 not very many, but there are a few that go in there. 15 And then in the fall time, the migratory birds come back in abundance, same time in the spring. 16 There is 17 resident swans down there from spring time until fall 18 that create pledgings and stuff like that. So this is 19 a real estuary. 20 21 What's significant about this one in my 22 opinion, is that because of its location on the Seward 23 Peninsula as the migratory birds come up from the South, if they miss St. Michael and Stebbins area, the 24 25 first thing they hit is our area. It's not the greatest and biggest estuary but it gets flooded with 26 all kinds of migratory birds. So what we've been 27 28 trying to do is get the migratory bird people from Fish 29 and Wildlife, I don't know which exact agency's 30 involved, making sure that the Corps has those agencies, whether it's seals, because there are 31 32 endangered seals, the bearded and ringed, and polar 33 bear, that IPOP has to deal with. You put those 34 agencies on notice that those resources, to some 35 extent, exist down there, that IPOP has to deal with 36 them. They've been asking us to help them but we're 37 not going to, they have to figure out how to make those 38 agency hurdles themselves. The migratory bird one, we just managed within the last year to get them involved, 39 40 still, we'll see where that goes, there might be the 41 spectl -- there is an endangered spectacle eider. We don't know if that's a particular area that they use, 42 43 I've seen them there, but not in abundance, but they 44 are there. 45 46 So we've been trying to get agencies 47 involved that are responsible for the different species 48 that need to be contacted and worked through by IPOP themselves. We, ourselves, Kawarek, has made sure that 49 50

the Corps understands that there needs to be tribal 1 2 consultation from IPOP through us. They've come up to 3 our region a few times and tried to have meetings with us. What we found out is that we've -- we've had three 4 5 meetings with them and we've been like a checkoff list. 6 In their last letter to the Corps, they denied any 7 subsistence activity there in the estuary, basically 8 wrote it off, there's no subsistence activity there. We've had three separate meetings with them, and the 9 10 reasons for our meetings was to talk about the various 11 subsistence resources we gather there. So the last 12 meeting they had in January of this year, Kawarek refused to meet with them, because they need to get on 13 14 board with our subsistence activities and what they 15 were trying to do, the way I figured it was that if they met with us, regardless of what we said to them, 16 17 because they met with us, and we were doing the tribal 18 consultation, we were a checkoff and that met their 19 intent. That's not how things work. 20 21 So we'll be glad to try to work with 22 you -- with the RAC in getting involved and making sure 23 whatever data information letters that need to go out, that we will inform you of the help that could be 24 25 needed from the RAC. 26 27 ACTING CHAIR GRAY: So is -- how do I 28 say this -- I want something but.... 29 30 (Laughter) 31 32 ACTING CHAIR GRAY:I actually 33 want the Board to throw it out. Is there any interest 34 in going further with this. 35 36 MR. OYOUMICK: Tom. 37 38 ACTING CHAIR GRAY: Go ahead. 39 40 MR. OYOUMICK: Yeah, in speaking with 41 some of the locals, the action put on by miners and 42 stuff detours the migration of belugas so that's a 43 thought. 44 45 ACTING CHAIR GRAY: Yeah. So I will 46 entertain a motion, I can't make a motion, but I'll entertain a motion that we direct Staff to work with 47 48 Kawerak through -- with Roy and Kawerak, to see how we 49 can work together to address this IPOP issue to -- so 50

Page 65 it doesn't interfere with our subsistence lifestyle. 1 2 3 MR. KIYUTELLUK: I make the motion. 4 5 ACTING CHAIR GRAY: Okay, there's a 6 motion. 7 8 MR. KATCHATAG: Second. 9 10 ACTING CHAIR GRAY: And a second. Any 11 discussion. 12 13 (No comments) 14 15 MR. KIYUTELLUK: Question. 16 17 ACTING CHAIR GRAY: Question's called. 18 All in favor say aye. 19 20 IN UNISON: Aye. 21 22 ACTING CHAIR GRAY: All opposed, same 23 sign. 24 25 (No opposing votes) 26 27 ACTING CHAIR GRAY: So will that work? 28 29 MR. ASHENFELTER: Yep, thank you. 30 31 ACTING CHAIR GRAY: Thank you. Okay, 32 so anybody else. 33 34 (No comments) 35 ACTING CHAIR GRAY: I want to see 36 37 another tribal issue or public issue, all you guys 38 sitting in the audience, you can all say public issues. 39 40 (Laughter) 41 42 (No comments) 43 44 ACTING CHAIR GRAY: So, okay, no tribal 45 or whatever, we're going to move on then. 46 47 (Laughter) 48 49 ACTING CHAIR GRAY: Old business. Old 50

Page 66 business, we have Board of Game proposal results and we 1 2 do not, for some reason have that, I guess. 3 4 MR. KIRK: We struck that out. 5 6 ACTING CHAIR GRAY: It got struck out, 7 that's right. 8 9 MR. KIYUTELLUK: Karen said she had no 10 data on it. 11 12 MR. SEETOT: We moved that. Oh, okay, 13 this is what we were trying to get done, now we --14 okay, I got it. 15 16 ACTING CHAIR GRAY: Okay. So I know we 17 have some new business so let's move on to -- who's 18 going to talk about Fishery Program Information Update. 19 20 There you are, welcome. 21 22 MR. HARRIS: Good afternoon, Mr. Chair. 23 Members of the Council. 24 25 ACTING CHAIR GRAY: Take your time, 26 we're moving way too fast. 27 28 MR. HARRIS: Okay, I will. 29 30 (Laughter) 31 32 ACTING CHAIR GRAY: Go ahead, you have 33 the floor. 34 35 MR. HARRIS: Yeah, I just want to introduce myself. My name's Frank Harris for the 36 37 record. I'm the Yukon area fish biologist. They sent me out here and I'm going to check things out, new 38 country out here. I've been to the Norton Sound a 39 little bit before, mainly doing some fishing, but never 40 been to Nome, so pretty cool country around here, I 41 42 like it. 43 44 So we'll get on to business here. 45 46 ACTING CHAIR GRAY: Okay. 47 48 MR. HARRIS: We'll start with I'll be 49 providing an update on two programmatic areas, 50

including fisheries regulatory cycle and Fisheries 1 2 Resource Monitoring Program. These will be brief. Please ask questions, go ahead and interrupt me if you 3 want. They're pretty self-explanatory, but if you have 4 5 questions just go ahead and ask. 6 7 So with the Fisheries Resource 8 Monitoring Program, this is an update. We're currently in the final phase of the 2020 Monitoring Program 9 10 funding cycle. The Federal Subsistence Board met on 11 January 28th through the 30th and made recommendations about the final funding plan. Once the Office of 12 13 Subsistence Management has a final budget, which should 14 be any day now, that may have already happened, I 15 haven't heard, but we're waiting on the final budget, the Assistant Regional Director will approve the 16 17 funding plan and all applicants will be notified of the 18 status of their submissions. 19 20 With the 2020 cycle nearing finalization it is time for Councils to begin to 21 22 develop their priority information needs for 2022. The 23 2022 Fisheries Resource Monitoring Program call for proposals, and that's due out this November, November 24 25 2020. Priority information needs, or PINS, as they are 26 known, are an important component of the FRMP programs 27 as they identify issues of local concern and knowledge 28 gaps related to subsistence fisheries based on input 29 from Regional Advisory Councils, so that would be this 30 Council here. The priority information needs determine 31 the types of projects that the Councils for each region 32 consider important and provide a framework for 33 evaluating and selection project proposals. 34 35 Now, I'm not sure if this Council had a 36 2020 meeting in the summer for the 2018 program, but 37 similar to the 2020 monitoring program -- or the 2018 38 program cycle, we are asking for several Council members to volunteer to meet programmatically, 39 40 telephonically over the summer -- sorry, telephonically 41 over the summer, to identify knowledge gaps and 42 information needed for management of subsistence 43 fisheries in the region. Volunteers will review a list 44 of the PINS from the last few FRMP cycles and a list of 45 what projects have been funded from those PINS, then 46 they will discuss whether the FRMP funded projects have addressed the previous PINS, the potential to reuse 47 48 previous PINS and the development of new PINS to address issues Councils have identified. 49 50

Page 68 The result of these telephonic meetings 1 2 will be presented to each respective Council, so it'll be presented to this Council, during their fall meeting 3 to help jump start discussion on the topic. Councils 4 5 will formally make a motion to adopt priority 6 information needs at the fall meeting and will start 7 whole new monitoring program funding cycle. 8 9 If anyone on your Council is interested 10 in participating and identifying information needs for 11 this region, this would be an appropriate time to 12 announce this interest. 13 14 ACTING CHAIR GRAY: So here we go, Tom 15 Gray, for 20 years has said, we need help with our 16 salmon fishery, king salmon. We had a fishery that was 17 a nickel and dime king salmon fishery and over the 18 years the escapement goal that the State had for that 19 king salmon fishery got wiped out. I protected it, I 20 went to an escapement goal meeting one time and I 21 protected it, I salvaged it, they left it alone until I 22 didn't show up at an escapement goal meeting, poof, 23 qone. 24 25 The -- and you know the hurdle that 26 I've heard from folks like you is that's State area, 27 that's State land. Quit your squawking. 28 29 Well, the area that I keep bringing up 30 and the area I keep talking about is in the Bendeleben Mountains, and you have Federal lands in the Bendeleben 31 32 Mountains, and these fish are spawning in there, silver 33 salmon are spawning in there. Why can't we get a 34 project in there. We need a project in there. And I 35 have been banging at the door for many, many years over 36 this and to no success. 37 38 One of the frustrations I have is once 39 you leave the Nulato Hills, there's not a whole lot of 40 Federal lands around. You know, we've got the Park up north but, again, I know there's Federal lands in the 41 42 Bendeleben Mountains and there's fish spawning in 43 there. We need to address that. 44 45 So anyway. 46 47 MR. HARRIS: Okay. Thank you. This --48 right now we're looking for volunteers to come up with 49 these priority information needs. So appreciate that. 50

Page 69 That, in the fall meeting is when we'd really want to 1 2 talk about these priority information needs, that's 3 when we'll be discussing those, but appreciate that. 4 5 ACTING CHAIR GRAY: Right. Right. 6 Well, I'm going to bring this out every meeting, I 7 don't care, fall, spring, whatever, you know, and I hate to be a bad penny but it's -- some day I'm going 8 to meet the right guy that will say, okay, let me make 9 10 a phone call and I'll straighten things out for you but 11 I haven't met that guy yet. 12 13 So, anyway, you know, is anybody on 14 this Board interested in sitting on this thing? 15 16 (No comments) 17 18 ACTING CHAIR GRAY: Why don't you 19 explain what you're looking for. You're looking for 20 two guys did I hear? 21 22 MR. HARRIS: Typically we like to have 23 at least two people from each Council, so two would be 24 fine, I mean even if there's one. But basically it reviews the previous PINS from years past, it talks 25 with managers, get some ideas for PINS coming up, 26 27 priority information needs for the next round. 28 29 ACTING CHAIR GRAY: Explain what PINS 30 is. 31 32 MR. HARRIS: Priority information needs 33 are the information needs that each Council needs, like areas they think are very important to them for 34 35 information to be researched by researchers for the 36 FRMP, the Fisheries Resource Monitoring Program. 37 38 So for a project, not necessarily to be 39 funded, but one of the things a project needs to be 40 funded is they -- okay, let me start over here. 41 42 (Laughter) 43 44 MR. HARRIS: The Council's come up with 45 these.... 46 47 ACTING CHAIR GRAY: Let me say, you're 48 talking way up here half the time and you need to come 49 to my level. 50

Page 70 1 (Laughter) 2 MR. HARRIS: Sorry about that. You 3 4 work with something every day, sometimes you start in 5 -- in different spots. 6 7 Okay. 8 9 So the way the FRMP Program works is 10 OSM comes to the Councils to come up with priority information needs for projects. Okay. And then once 11 the information needs from the Councils are voted upon 12 13 and come up with, then these are put into a notice of 14 funding opportunity that goes out to researchers in the 15 fall and this is going to happen in the fall, and they 16 look in the region they look in and then they look at 17 these priority information needs, which is basically a 18 list of, you know, like not specific projects but areas 19 where people, the Councils want these projects done, 20 and then the researchers look at these and they think, 21 okay, oh, this is a good idea, and this is a really 22 good idea and we've been kind of wanting to work in 23 this area, so then they put in an application that deals with that priority information need to come up 24 25 with a project. Now, researchers don't have to go with a priority information needs to get funded but it's 26 highly advised that use these priority information 27 28 needs for projects. Now, they might come up with 29 something that nobody's thought of and it's a really 30 really good idea and that's why it's not limited to 31 just addressing these priority information needs, but 32 if it's not something that addresses a priority information needs and it's not some novel thing that 33 34 people haven't really been thinking about, it's really 35 going to be difficult to get funded. I'm not saying it 36 won't happen but it's going to be difficult. So these 37 information needs, these priority information needs 38 that these Councils come up with, the basis for 39 projects that are funded in your region. 40 41 So when a Council comes up with these 42 information needs, these are like very important, 43 they're baseline starts for the whole program. 44 45 Does that make a little more sense now? 46 47 ACTING CHAIR GRAY: So I've got a 48 couple of questions. 49 50

One question, you want somebody to sit 1 2 on a board to evaluate the needs, so to speak. And 3 those needs are going to be addressed this fall so that person's going to sit on a board this winter, where --4 5 what -- are you looking for somebody to sit on a needs 6 thing that's already happened, what's -- where are we 7 at here? 8 9 MR. HARRIS: So these volunteers would 10 meet once during the summer, by telephone, to discuss PINS that had been used in the past in the region, you 11 know, and whether or not projects have addressed those 12 13 PINS, and then come up with a list to bring up to the 14 Council in the fall. And the Council is more than 15 welcome to add to this list, shrink this list, do whatever they want to do with this list at their next 16 17 fall meeting to officially name them priority 18 information needs. They won't be official until the 19 Council makes them official in the fall meeting. 20 21 So this person would just be one 22 meeting, by telephone, once during the summer, probably 23 July or August if I had to venture a guess. 24 25 ACTING CHAIR GRAY: Okay. Now, the 26 next question is, the Chairman didn't make the meeting for some reason, I think we ought to make him sit on 27 28 this board. 29 30 (Laughter) 31 32 MR. HARRIS: As the acting Chair I 33 would say that's probably up to you. 34 35 (Laughter) 36 37 ACTING CHAIR GRAY: So I don't have a 38 problem submitting Louis' name in there, I really 39 don't. 40 41 (Laughter) 42 43 ACTING CHAIR GRAY: I think he'd be 44 good for us. 45 46 MR. HARRIS: I will certainly write his 47 name down, what's his last name now? 48 49 MR. OYOUMICK: Louis Green. 50

Page 72 1 MR. HARRIS: Green, okay. 2 3 MS. VOORHEES: Through the Chair. 4 Hannah Voorhees, OSM. 5 6 I just wanted to add that the priority 7 information needs stage of the Fisheries Resource 8 Management Program is -- or Monitoring Program, rather, is really the Council's opportunity to steer our 9 10 research goals and outcomes. I hear, just in 11 conversation with all of you, a lot of concerns and ideas and I think this would be a great opportunity to 12 13 work collaboratively to develop those ideas into --14 PINS -- we can really just substitute, you know, 15 research themes, species and regions, and usually these 16 projects are kind of arbitrarily divided into stock, 17 status and trends and traditional ecological knowledge. 18 So there's an opportunity for systematically 19 documenting local knowledge as well. 20 21 And ideally, as we move forward in this 22 program we're really trying to integrate those two dimensions of the projects so that we can combine 23 conventional scientific and local scientific research. 24 25 26 Thank you. 27 ACTING CHAIR GRAY: So, you know, I've 28 29 sat on this Board for a long time and this -- strange 30 to me, this is the first time I've heard this, we need 31 somebody to sit on the committee to evaluate projects. 32 I've heard all kinds of stuff about projects and I've 33 heard lots of excuses why I don't get projects and I tell you I hope Louis accepts this thing because you're 34 35 going to dread the day he took this position. 36 37 (Laughter) 38 39 ACTING CHAIR GRAY: But irregardless, 40 you know, is this a new side, a new twist, or has it 41 been there a long time? 42 43 MS. VOORHEES: Yes, Pat would like to 44 say something. 45 46 MR. HARRIS: So this aspect of it is 47 new in terms of coming up with like meeting during the 48 summer but the priority information needs has been part 49 of this program for a long time. 50
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1 MS. PETRIVELLI: And this is Pat 2 Petrivelli with BIA. 3 4 And the idea of evaluating projects, 5 you're not evaluating projects, but what you are going to do is evaluate what you need for projects. And two 6 7 years ago it would have been Karen Hyer that would have 8 asked for volunteers to work with her. Because it was just the work groups that were started two years ago 9 10 and they were just started just barely two years ago. 11 We always had priority information needs and then they were put together and some people developed strategic 12 13 plans but I don't think this region has and maybe 14 because there's so little Federal public waters in this 15 area that they probably -- they ran out of money before they got to you, but with this strategic -- with these 16 17 priority information needs yours is for the northern 18 region and you share them with Northwest Arctic and 19 North Slope, so all three Councils come up with 20 priority information needs and so your -- all your 21 needs will be put together and then that's what will go 22 out for the funding opportunity and that's where 23 researchers would get a focus so you're just 24 identifying the areas that should be investigated. 25 26 And then I have the list, I think, from last year, the last cycle, but I had the one that was 27 28 for -- and it was looking at the northern -- it said 29 inventory and baseline data fish assemblages in major 30 rivers of northern Seward Peninsula tied to subsistence use including Shishmaref with the intent to add to the 31 32 anadromous fish catalog. Because I think you had an annual report issue about adding fish streams and I 33 34 think that's how your PIN got in there and that's how 35 it ended up -- because it was an annual report issue. 36 37 So I'm not sure who worked with Karen to get that PIN on there but -- and then there's a few 38 others but I don't -- it says coho salmon abundance 39 40 estimates for Paragon, Boston and Wagon Wheel Rivers, I don't know where those are but that was for your region 41 42 also. And then I think there was one -- for one -- I 43 think it was from Northwest Arctic and then I think a 44 North Slope priority information need. 45 46 But this committee, this subcommittee 47 that would meet this summer would just come up with 48 research needs that would -- that you think is a 49 concern for your region. So -- and it does have to 50

Page 74 have the nexus of Federal public waters, but like you 1 2 pointed out the fish spawning in those mountains, 3 whoever's on your subcommittee, and I think it would be 4 Karen Hyer and then I think they're hiring a fish 5 biologist for the northern region. 6 7 MR. HARRIS: They haven't specified it 8 yet. 9 10 MS. PETRIVELLI: Well, if not, Frank 11 will do it. 12 13 (Laughter) 14 15 MS. PETRIVELLI: And he'll become 16 familiar.... 17 18 (Laughter) 19 20 MS. PETRIVELLI: And he will be come 21 familiar with your area. 22 23 (Laughter) 24 25 MS. PETRIVELLI: And he'll know all the 26 Federal nexuses by the time he's meeting with you this 27 summer. 28 29 (Laughter) 30 31 ACTING CHAIR GRAY: So Paragon and Boston and that's all my grumbling and bitching over 32 33 the years. And anadromous, or cataloging, that was 34 OSM's, okay, we're going to pacify him a little bit and 35 we're going to catalog some fish or something. I don't know what it was. But I still -- I'm still after --36 37 you know, it just frustrates the dickens out of me that 38 I have a king salmon run that is getting washed out of 39 the system because nobody cares. 40 41 I mean you take Golovin, White 42 Mountain, Council, we all look forward to the king salmon coming, that river -- the people that live on 43 44 that river look forward to those king salmon, they're 45 not coming anymore. And they have been coming for a long, long time. And why aren't we taking care of 46 them. You know there's fish spawning in Federal lands 47 48 that we can address so I mean we can bring this topic 49 back up next fall and get it aired out, you know, 50

Page 75 again, I -- if Louis accepts this, which I think he 1 2 will, I think he will be a real asset for this Board, 3 you know. 4 5 Let me ask, is there anybody else, I 6 mean they could take two people or more, probably 7 sitting on this thing, is anybody else interested? And 8 I -- my plate is so full I really don't want to 9 volunteer for anything more. 10 11 MR. SEETOT: Let your plate overflow. 12 13 ACTING CHAIR GRAY: Uh? 14 15 MR. SEETOT: Let your plate overflow. 16 17 (Laughter) 18 19 ACTING CHAIR GRAY: The Lord has got me 20 going. 21 22 Roy. 23 24 MR. ASHENFELTER: Mr. Chair. Just a 25 couple of thoughts on consideration. I believe the 26 Unalakleet River qualifies for wild and scenic and so 27 to me someone from Unalakleet would be invaluable on 28 this committee. 29 30 Here's what I've learned. 31 32 When I first saw this process, oh, 33 maybe 10, 15 years ago, what I found out is that all 34 the research projects went up to Kotzebue area and up to Arctic Slope area. And then I tried to speak out 35 36 about why isn't Seward Peninsula getting its, at least 37 one research, and the answer was there's hardly any 38 Federal waters. Well, there is, there's Shishmaref, 39 you know, there's that Arctic -- whatever you want to 40 -- Bering LandBridge, there's the wild and scenic river, Unalakleet has had a huge, many years of 41 42 depressed king runs, so to me adding funds to get a 43 better hold and how do we get the kings to return would 44 be invaluable research in my opinion. 45 46 There used to be a commercial fishery 47 for kings, just to give you an idea of how much kings 48 they had down there. 49 50

Page 76 So, to me, if you can get Louis and 1 2 another person from Unalakleet that would be really 3 helpful. 4 5 The one thing that I've learned from 6 this -- the reason I came up here in the first place --7 it's almost like the squeaky wheel gets the money. Ιt 8 was Willie Goodwin in the Northwest -- in the NANA region that was on this committee, literally on this 9 10 committee about -- I'll just say at that time almost all the research was being done in their area. Well, 11 they do qualify, the NANA region, because they got 12 13 many, many acres of Federal lands. 14 15 So, anyway, the point I'm trying to 16 make is that, to me, someone from Unalakleet would be 17 invaluable. 18 19 ACTING CHAIR GRAY: Okay. I've got 20 Leland and then I want to ask a question so, Leland. 21 22 MR. OYOUMICK: How soon do we have to 23 let you know we're interested? 24 25 MR. HARRIS: If you could let Karen know, you know, even in a few weeks if you wanted to, 26 27 that'd be fine. It doesn't have to be right now. 28 29 MR. OYOUMICK: Thank you. 30 31 ACTING CHAIR GRAY: So the two guys or three guys, or whatever, the membership you're looking 32 for to sit on this committee, does it have to come out 33 of this Board or can it come from the public here in 34 35 Nome or what's the story there? 36 37 MR. HARRIS: It needs to be members of 38 the Council here. 39 40 ACTING CHAIR GRAY: Okay. Okay, any --41 on this issue, any other thing. 42 43 Elmer. 44 45 MR. SEETOT: Thank you, Mr. Chair. 46 47 Tom mentioned Bendeleben. I met Tom 48 maybe a couple, more than a couple times out in the 49 Bendeleben Mountains going after muskox and other 50

Page 77 things, he's talking about the Boston Creek area on the 1 2 south side of Bendeleben Mountain. 3 4 ACTING CHAIR GRAY: Yep. 5 6 MR. SEETOT: Going from south to north 7 on that creek, that's horrible with a snowmachine with 8 minimal conditions. And then you have the Kuzitrin River that -- that probably starts at Kuzitrin Lake, 9 10 pretty much eastern portion of Bendeleben Mountains. I 11 travel through there, Kuzitrin River area, for a long time, and I know it's pretty rotten but I know that 12 there's fish that go up there and -- and any fish that 13 14 starts their livelihood or their lives, I think, come 15 from the small streams and that's where Bendeleben, what do you call it, the headwaters..... 16 17 18 ACTING CHAIR GRAY: Uh-huh. 19 20 MR. SEETOT:or the Kuzitrin River 21 headwaters, I guess, pretty much if I'm using the term 22 right starts within the Federal lands. That's where 23 all -- everything starts from. 2.4 25 The other -- just State and maybe 26 Native Corporation lands that the fish go through but 27 that place is remote and then so it's -- it's a long 28 travel by snowmachine from Brevig to maybe Bendeleben 29 Mountains so that's 65 almost 75, 100 miles just -- not 30 as the crow fly but, you know, the trail so there's --31 there's many creeks or rivers that do not qualify but 32 at least some portions of these creeks or waterways are in Federal lands. Agiapuk River, that doesn't have --33 have some portions of their land in Federal, I -- I 34 35 know looking at that map, Kuzitrin River pretty much 36 starts I think at Kuzitrin Lake, so I think you --37 whether you say that they shouldn't be researched, I think you need to put that in, you know, where they 38 originate from, pretty much, you know, like any species 39 40 that want to start off, they start in a protected area, pretty much like the -- like the bearded seal, that our 41 born in the Bering Sea, they find safety in the small 42 43 creeks wherever -- wherever, or wherever they were 44 coming from so that's their safety net. I think what 45 the small -- the small fish that are coming out, or the 46 eggs are laid that turn into small fish, those areas need to be protected, Imuruk Lake, Imuruk Basin is a 47 48 huge area that's -- that's pretty shallow but it has 49 numerous pikes and beaver dams. Will the State or 50

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Federal agencies do something about the beavers that 1 2 pretty much are blocking maybe the -- the waterways 3 where these fish spawn instead of trying to say, oh, 4 there was overfishing in the Bering Sea. Look at where 5 these fish originate from, is there something blocking 6 the fish from going all the way up to spawn like the 7 beaver dams, they're very numerous now in and around 8 Kuzitrin. They're in our -- they're within five miles 9 of Brevig Mission and probably even further north. 10 Same way with pike. Nome is going to have a pike --11 pike, whatever, a jamboree or something telling them to 12 fish all the pike they can get, you know, for their outing next month. I read it in the Nome Nugget last 13 14 year that they go up to Pilgrim and that area, go for 15 the biggest fish, the longest or whatever, what about the mostest, you know, what about the more fish that 16 17 you catch, you know, it -- it would help the fish in 18 our streams. 19 20 The people that passed on in Mary's 21 Igloo kind of kept the fish in stock, I mean in place 22 because they were continually fishing for pike kind of 23 yearround if they were in and around that area. I have 24 come to, you know, oldtimers that stayed up there in 25 the springtime when I managed to pass through, you 26 know, you want to -- whatever -- you know, the style, the eggs that they -- skein of eggs or whatever they 27 call them, do you want some eggs from these pikes, and 28 29 that's the way that I think that they kept many of 30 these predatory fish, such as pike, in check, because the eqg sacs of these pike, millions, or I would say 31 32 thousands and they're pretty much -- so we're not really doing too much in this area, I mean Nome -- Nome 33 34 people use Imuruk Basin, Pilgrim River a lot of times. 35 We use that place to fishing and whatever, but we're 36 kind of restricted in that -- in going to certain areas 37 because that's a restriction placed by Native 38 Corporations that own these lands. It was free reign 39 before 1971, I remember going up there and drinking 40 water right at the mouth of -- or somewhere around the 41 mouth of Kuzitrin River because we knew that was fresh 42 and that times -- times when it got -- maybe it was a 43 little cooler at that time because we didn't have very 44 much algae in and around Imuruk Basin. But over the 45 years it got so warm that a couple times the algae has 46 spilled out into Grantley Harbor so I know that Imuruk 47 Basin is shallow but everything is growing up there at 48 a rapid pace. I'm not really too sure if it's due to 49 the fact that NSEDC has been putting fish -- fish food

135 Christensen Dr., Ste. 2., Anch. AK 99501

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Page 79 into Salmon Lake. And I have a question that technique 1 2 put out by this organization, what other side effects 3 do food fertilizer for the small fry have on the river, those are -- does it induce plant growth, plant weeds 4 5 around the river system or does it do -- or, like they 6 say, it doesn't have any effect at all. 7 8 These are some of the things that, you 9 know, that needs to be looked at. 10 11 I would think that Native people are so naive that, oh, yeah, we pretty much have been doing 12 13 things put forth by the State and the Federal 14 government, we just said okay this is what you need to 15 do, went along willingly because at that time, you 16 know, we didn't have very much voices or people to 17 stand up for us. Nowadays people with education, our 18 young people are getting college education, you know, compared to 20, 30 years ago and are really talking for 19 20 our people now and not just for their -- they're really going for issues that have alluded us for so long. Now 21 22 we're kind of tackling them head on and then the other 23 side is trying to figure out where do we go from here 24 and -- and I know that trying to talk about some of 25 these difficult issues, you know, it -- it brings us to 26 a point sometimes where we're just combating, you know, like Tom say, we talk about this stuff for so long 27 28 they've just become natural just to talk about them. 29 But things are changing now and I think that something 30 needs to be done. 31 32 I guess our Native people are no longer 33 just sitting back and saying, okay, they'll be able to do the job that they're looking at, they're talking to 34 35 us more instead of saying, oh, we got the decision made and Washington, D.C., or in Juneau, this is what we're 36 37 going to do and then hopefully the people accept that, nowadays it's pretty much going back and forth --38 dialogue is going back and forth between any interested 39 40 agency or any Federal agency that is willing to make 41 sure that things go right. 42 43 Thank you, Mr. Chair. 44 45 ACTING CHAIR GRAY: Okay. Before we move on, it just dawned -- you know, sometimes it takes 46 a light to turn on in my head and it takes a little 47 48 while for that light to work. You know Roy's 49 suggestion of somebody coming out of Unalakleet was 50

Page 80 right on. I mean Unalakleet and Shaktoolik, lots of 1 2 Federal lands. The thing that I see sitting at the 3 table is we have to put two or three people on this 4 Board, it has to come out of this Board to sit on his 5 board. And out of Unalakleet there's two guys sitting at the table, and, you know, I'm I guess pushing the 6 7 button here to see if one of you guys want to step up 8 and sit on this board because once we leave I hate to 9 see it forgotten. 10 11 MR. OYOUMICK: I need to talk to folks 12 at home first before I decide. So I'll be deciding 13 soon. 14 15 ACTING CHAIR GRAY: Okay. And there's 16 nothing that says both of you can't sit on there as far 17 as I understand. So if you're ready to step up he'll 18 take your name. 19 20 MR. KATCHATAG: That's a good one, I 21 don't know. 22 23 What do you need to know about the fish 24 there? I know we've got the king salmon, our river's 25 been too high for any counting. I know they're going up and I know there was a lot last summer because the 26 27 ones that were subsistence fishing caught a lot of 28 kings from small to big. So what do we -- what role do 29 we need to play with you? 30 31 MR. HARRIS: So essentially what 32 information do you feel that you need for the river. 33 That's what we're looking for. We're looking for what people, the information people on the Council want for 34 35 their area. 36 37 MR. KATCHATAG: Information about the fishing, I have mixed feelings about that. So I'll 38 39 have to really consider this. I've been a commercial 40 fisherman all my life and I've been subsistence because I had dogs before and I know what I'm up against now 41 42 and it's giving me mixed feelings. 43 44 MR. HARRIS: Well, that's why we're 45 asking now for people to volunteer for this so that people can think about it. You're going to have, you 46 know, all spring, all summer, until the meeting happens 47 48 and once the meeting happens then we'll come with a 49 list to the Council in the fall and the Council can 50

Page 81 deliberate whether they want to adopt all these 1 2 information needs or just a few of them. It's basically up to the Council. This is the Council's 3 4 input into the program. So you don't have to decide on 5 what information needs are needed right now, you'll 6 have time to think about it. 7 8 MR. KATCHATAG: Another question is how 9 often would you be meeting? 10 11 MR. HARRIS: In the past it's just once 12 during the summer. 13 14 ACTING CHAIR GRAY: Okay. So both of 15 you guys from Unalakleet will get back to Karen or Tom 16 or somebody and go aye or nay or whatever it is. 17 18 So, okay, I think we kicked that horse 19 to death and you got another one to beat up on. 20 21 (Laughter) 22 23 MR. HARRIS: All right, so we're going 24 to talk a little bit about the fisheries regulatory 25 cycle. 26 27 The Federal Subsistence Board is 28 accepting proposals this spring to change Federal 29 regulations for the subsistence take of fish and 30 shellfish on Federal public lands and waters for the 2021 to 2023 regulatory cycle. You can find a flier 31 starting on Page 17 of your book that describes how to 32 submit a regulatory proposal. 33 34 35 The Board will consider proposals to change Federal fish and shellfish seasons, harvest 36 37 limits, methods of harvest and customary and 38 traditional use determinations until April 20th. So 39 that would mean you'll have until April 20th to submit 40 these proposals. 41 42 There are a number of ways you can 43 submit proposals. If you have a fishery proposal that 44 you'd like to submit as a Council or as an individual 45 we can discuss that right now. You can also submit proposals to OSM through your Council coordinator by 46 47 hand, by mail, and we can assist you in drafting your 48 proposal if you'd like. There's also an online process 49 outlined more clearly on the flier in your books. 50

Page 82 These proposals will be analyzed and 1 2 presented to the Council during the fall meeting cycle 3 this year for Council recommendations. Proposal and analysis and Council recommendations will be presented 4 5 to the Federal Subsistence Board for their action at 6 their January 2021 fisheries regulatory meeting. 7 8 This concludes the Federal regulatory 9 cycle update. 10 11 Any questions. 12 13 ACTING CHAIR GRAY: Anybody want to 14 talk proposals, now is the perfect time to -- we got 15 the right guy in front of us to help us make a 16 proposal. 17 18 Anybody. 19 20 MR. SEETOT: Do you have last meeting, 21 or last October's proposal made -- proposed by RAC, 22 Seward Peninsula or was there no -- nothing submitted? 23 24 MR. HARRIS: So as far as regulatory 25 proposals, I wasn't here and I haven't gone through the 26 transcripts so I don't know if you guys were talking 27 about any regulatory proposals from October. We could 28 certainly go back through and look at that at a later 29 date. 30 31 ACTING CHAIR GRAY: Okay. Anybody. 32 This is the opportunity to change the regulation book 33 if it's blessed. If you -- go ahead. 34 35 MR. SEETOT: Elmer again. Many of the 36 proposals that do come through State and Federal 37 agencies are pretty much fishery proposals, life cycle, 38 harvest requirements, this and that, when you do that is there anything that you're looking at marine 39 40 ecosystem or contaminated waters that are out there, 41 stuff like algae bloom, are those taken into 42 consideration when you're saying, oh, there's a big 43 crash or fish are flipping over due to warm water, are 44 they starting to keep track of some of these events 45 because I know that around -- or between Teller and Brevig, that channel, there's been some tomcod die-off 46 47 over the summer, not in great numbers but at least 48 probably has something to do with water quality or just 49 maybe temperature of the water. And other than that --50

Page 83 prior to that, in the spring, it was pretty much 1 2 auklets, or the murres that were pretty much swimming 3 around in a stupor condition, you know, due to the lack 4 of nutrition or something else. 5 6 I know that pretty much everything kind 7 of starts right at the bottom, from the algae -- I'm 8 glad that we had a winter sea cover up because I would 9 assume that being open, you know, would produce more 10 warmer waters and then anything associated with warmer 11 waters would kind of come around to our area. And they mentioned something about the cold water separation 12 that -- in and around the Bering Strait so there's 13 14 something, you know, that you need to look at, even 15 though you probably don't have the jurisdiction for 16 that so that -- that's what I'm -- I'm trying to make 17 sure that, you know, when you're considering or making 18 recommendations or requirements for us to harvest or do 19 something with the natural resources, are you looking 20 at other external factors that do come into play that 21 we're so aware of, climate change, this and that, that 22 we talk about so much. 23 24 Thank you. 25 26 MR. HARRIS: Thank you. For -- when a 27 biologist analyzes the proposals, they analyze and take 28 into account all data that they can find and then they 29 come up with an OSM preliminary conclusion and this is 30 taken to the Board and then the Board votes upon the 31 proposal based on data and input from the Councils. So 32 all that information is taken into account during the regulatory process through the analysis. 33 34 35 ACTING CHAIR GRAY: Okay. I'm going to 36 shorten this up and get to the point. Does anybody 37 want to talk about a proposal of any kind to submit by April, if not, we're going to move on. 38 39 40 (No comments) 41 42 ACTING CHAIR GRAY: Five, four, three, 43 two, one. 44 45 (Laughter) 46 47 (No comments) 48 49 ACTING CHAIR GRAY: Boom. Take a 50

Page 84 1 break. 2 3 (Off record) 4 5 (On record) 6 7 ACTING CHAIR GRAY: Annual report. 8 Okay, where am I finding our -- go ahead. 9 MR. KRON: Mr. Chair. And I'm not sure 10 11 if Karen is on the phone -- Karen, are you on the 12 phone. 13 14 (No comments) 15 16 MR. KRON: Okay. My understanding is 17 that at your last meeting you decided not to do an 18 annual report. You don't have to do an annual report but you can. But there's nothing in your book because 19 20 my understanding is you decided not to do an annual 21 report at your fall meeting. You could decide that you 22 want to add something or do an annual report at this 23 meeting, it's up to you. 24 25 Thank you, Mr. Chair. 26 27 ACTING CHAIR GRAY: Here we go now. 28 29 (Laughter) 30 31 ACTING CHAIR GRAY: I want to hear it 32 from you guys, though. Do you guys want to do an 33 annual report. You know, you've heard a lot of issues 34 here, what do you want to do? 35 36 MR. SEETOT: Karen used to kind of 37 remind us during the course of the meeting, you know, 38 what issues were kind of important to us, so far I'm 39 not really too sure of anything that has stuck out so 40 far. 41 42 ACTING CHAIR GRAY: Okay, Karen. 43 44 (Laughter) 45 46 MR. KRON: Mr. Chair. You've talked 47 about a number of things this morning. 48 49 I heard possibility of letters. And, 50

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again, every year and a number of the Councils -- not 1 2 every year -- but a number of the Councils have chosen 3 over the years not to do annual reports, you don't have 4 to do an annual report if you don't want to, but if 5 there are issues that you want to hear from the Federal 6 Subsistence Board on, you're welcome to submit those 7 issues and Karen will check the transcripts and 8 implement your annual report for you, if you like. But 9 it's based on this meeting. This meeting would be 10 where you would implement the idea, talk about it, make 11 a motion, if you choose to, and actually this is the 12 meeting to vote on the annual report items. 13 14 Thank you, Mr. Chair. 15 16 ACTING CHAIR GRAY: And refresh my 17 memory, are these items current items that are 18 happening, like we talked about crab, we talked about 19 fish, scenic waters, we've talked about Federal waters, 20 yadayada, so enlighten me. 21 22 MR. KRON: Yes. Current items. And, 23 again, basically this would be going to the Federal Subsistence Board so it would be going to the Fish and 24 25 Wildlife Service, Park Service, Bureau of Land 26 Management, U.S. Forest Service, BIA. So those are the 27 agencies this would be going to. 28 29 And I think, you know, the issues that 30 they could address related to ANILCA would be the kind 31 of thing that you would want to propose. 32 33 Thank you, Mr. Chair. 34 35 ACTING CHAIR GRAY: So, now, you know, 36 let's take the crabbing thing. We can make that an 37 issue but we're not going to address anything in our 38 world in this book because we're not commercial 39 crabbing so to speak, so if we made that a point in an 40 annual report, is it worth putting it in the report, 41 number 1. You know, I guess we always hear that the 42 Feds and the State should mirror each other and work 43 together and blah, blah, blah, is it worth putting 44 crabbing in a report. 45 MR. KRON: Mr. Chair. What I heard 46 47 discussion about was the possibility of doing a 48 letter.... 49 50

Page 86 ACTING CHAIR GRAY: Yes. 1 2 3 MR. KRON:to the North Pacific 4 Fishery Management Council. And, again, because it's 5 essentially a State issue, it's a NMFS, National Marine 6 Fisheries Service issue, that makes sense. You can put 7 it in your annual report, too, but I think doing the letter to the people that have the jurisdiction over it 8 makes a lot more sense because, again, your Federal 9 10 Subsistence Board doesn't have direct jurisdiction over 11 that issue. But, again, it's your call. You can put anything in your annual report you want, it's up to 12 13 you, Sir. 14 15 ACTING CHAIR GRAY: Okay. Anybody have 16 any thoughts here. Speak up or I'll move on. 17 18 MR. SEETOT: I'm not too sure if, you 19 know, climate induced, you know, fish kill off, I'm not 20 too sure if that was addressed in the past. I know 21 that walrus were addressed or sea mammals, I'm not too sure about the recent die-off kind of period some of 22 23 these rivers where the water temperatures, you know, spiked up considerably. Would that be an issue, or do 24 25 you think that it's going to pass by? 26 27 ACTING CHAIR GRAY: Go ahead. 28 29 MR. KRON: Mr. Chair. That is an issue 30 that I've heard discussed at the Yukon Councils, I've heard it discussed on the Kuskokwim. I think that that 31 32 issue is going to show up in their annual reports. 33 And, again, if you want to include it as the item or one of the items in your annual report, it's your call, 34 but remember, anything that you add, I'm going to give 35 36 to Karen and so Karen is probably going to be upset 37 with all of us if she has to work on writing this up. 38 39 (Laughter) 40 41 ACTING CHAIR GRAY: You know, I think 42 God put me here on Earth to piss off people like Karen. 43 44 (Laughter) 45 46 ACTING CHAIR GRAY: And, you know, 47 along with the overheating of the water is the algae in 48 the rivers. I mean my river system was just full of 49 algae last year, total, I mean all -- I do a water 50

Page 87 quality thing with some local -- I'm the transporter 1 2 and we had a hard time finding sandbags, can't see them 3 because of the algae in the water and that's been 4 around for two years now. So, you know, it is and 5 should be a concern, I guess. 6 7 MR. KRON: Mr. Chair. Real quickly, 8 and I know Carol has something she wants to add, too, but, again, we had that presentation this morning on 9 10 climate change. You know I've been involved in drafting information for annual reports, reviewing 11 annual reports, likely if you were to ask about climate 12 13 induced changes and impacts on resources under ANILCA, 14 you're probably going to get a response similar or 15 related to or referring to what you heard this morning, 16 so, anyway, again, I thought that was an excellent 17 presentation this morning, but think about what -you've seen lots of annual reports before, so what are 18 19 you going to see in that if you ask this kind of 20 question, what are you going to learn in addition to 21 what you learned this morning, I don't know. 22 23 Thank you, Mr. Chair. 24 25 MS. DAMBERG: Through the Chair. This is Carol Damberg with the U.S. Fish and Wildlife 26 27 Service. 28 29 I was just going to make sure that 30 folks knew that they may also include other subsistence 31 related concerns like Tom just said that are not 32 addressed in the regulatory process, and in my 33 conversations, I think it was with Leland, and I know 34 Elmer spoke to this as well, there was concern over the 35 food resources that you're eating and the contaminant 36 loads that they may hold. So as a future meeting topic 37 or area of interest, that might be something you would ask for more exploration to maybe bring to the meeting 38 39 to inform the Council. 40 41 ACTING CHAIR GRAY: Okay. Is somebody 42 writing down these items here. 43 44 MR. KRON: Tina's getting everything. 45 46 (Laughter) 47 48 REPORTER: Recording it all. 49 50

Page 88 (Laughter) 1 2 3 ACTING CHAIR GRAY: You know, okay, so 4 we have the contaminants, we have the algae, the river, 5 warm water, and there's two different kinds of algae in 6 that river. I mean one kind of algae is like dust in 7 the river and the other kind is a green grass kind, and 8 it's been terrible for a couple years. Anything else. 9 Anything else that we can put into this annual report. 10 11 (No comments) 12 13 ACTING CHAIR GRAY: You know I would say maybe just mention that we have sent a letter 14 15 addressing subsistence crab issues so that's up on the 16 table. Of course we haven't made a motion yet to adopt 17 that but I'm sure it's going to happen. 18 19 Okay. 20 21 MR. KRON: Yeah, Mr. Chair. And, 22 again, this, at the winter meetings, this would be the 23 meeting where you would actually vote to approve the 24 annual report items. 25 26 What I have so far is climate induced 27 changes, algae, fish kill-offs as one. 28 29 Contaminants of food items, 30 contaminants affects on food items that these 31 subsistence users depend on. 32 33 And, then, again, mentioning the letter 34 that's going to be discussed more tomorrow about crabs 35 and the crab fishery and protecting the resource for 36 subsistence users. 37 38 And, again, my intent will be to shovel 39 these off to Karen and she will write the letter, 40 you'll sign it, but, again, your Council would need to 41 vote on it today. You'd vote to say this is our annual 42 report. 43 44 ACTING CHAIR GRAY: Go ahead. 45 46 MR. KATCHATAG: How about effects from 47 the contaminants you get from the ocean, radiation 48 fallouts in Japan, Siberia, how is it affecting our 49 fish. That's something that needs to be brought up to 50

Page 89 everybody, not just here. And if we learn more about 1 2 it I think we could really help everybody. 3 4 MR. KRON: So that's the fourth item on 5 the list. And, again, basically what Karen will do is 6 look at what Tina puts in the transcripts, your word 7 for word presentation of this, and then compile this 8 into a letter, which will be combined with all other --10 [sic] other Councils, the other 10 [sic] Councils 9 10 are doing annual reports, and, again, like I said, we 11 had understood that you didn't discuss any annual report items in the fall but I've heard four items here 12 13 so you would have an annual report, just like the other 14 10 [sic] Councils do, if you decide to vote. 15 16 Thank you, Mr. Chair. 17 18 ACTING CHAIR GRAY: Ron. 19 20 MR. KIRK: Mr. Chair. On this -- we're talking about an annual report concerning our 21 22 subsistence way of life, what about thinking about the 23 permafrost, we're getting global warming. The sun ray 24 is a lot hotter than it used to be and it's melting our 25 permafrost and when it does that, we don't what kind of -- what do you call those, what's the fancy word --26 27 anyway, we don't know what kind of contaminants are 28 coming out from the ground. You know, we're eating 29 plants, picking berries off the ground. And back in 30 the 1800s when they had an epidemic, you know, 31 everybody was getting sick from who knows what and if 32 this sun is melting the permafrost and we got all this 33 stuff coming out of the ground, we don't know what's under there and we don't know what kind of contaminants 34 35 are being exposed to our plants, our berries and 36 animals that live off the grasses and the trees. We're 37 gathering that and putting it on our table to eat it. 38 39 So that's another thing we need to look 40 at besides the ocean and the water temperature heating 41 up the ocean floor and it's shallow where the kelp is. 42 43 We also have to think about the 44 radiation coming out of the water and into our kelp for 45 herring eggs that crab live off of. 46 47 Thank you. 48 49 ACTING CHAIR GRAY: Okay. Any other 50

Page 90 1 thoughts. 2 3 MR. SEETOT: It might be out of our jurisdiction but Mr. Oyoumick mentioned something about 4 5 cancer. Military has done a lot of stuff in World War 6 II, I think.... 7 8 ACTING CHAIR GRAY: In I. 9 10 MR. SEETOT: World War I and World War 11 II and over the years the Federal government, excluding these U.S. agencies, you know, that are present right 12 now, have done things that might have polluted the 13 14 waters, contaminated the land and such, yet we don't 15 hear about it, only when something is uncovered do we 16 really know about it. 17 18 Russia is pretty much covering 19 everything up on their side. Military has been doing 20 that on our side for a number of years. Why do we have, you know, all the cancers within Mary Igloo, it 21 22 used to be a military site, I think or military supply 23 depot in and around these areas. Many people have been 24 dying from cancer, kind of unheard of throughout the 25 life cycle of the Alaska Natives dating back so many 26 years, not until they came into contact. The 1918 27 epidemic, flu epidemic pretty much right now, too, according to this virus, is like Western society likes 28 29 to say is history repeating itself, I think -- pretty 30 much, I think in order for us to look at these things, 31 we need to look at the past. 32 33 I kind of mentioned earlier this 34 morning, something about the crab, when Mr. Lean was 35 talking, most of the time biologists talk about the, 36 you know, life cycle, this and that, about the natural 37 resources. What -- I think what is missing in these conversations is 50, 60 years ago, what -- what 38 39 happened in that time to make things happen or to make 40 things look very odd right now. So I think you need to look back to really understand what is really happening 41 42 right now. In the past, erosion, erosion wasn't too 43 much -- wasn't so much in our area because weather was 44 a lot tamer. Now, we got system after system, low 45 pressure coming in from the western portion of our 46 state, from the other side of the world and we really 47 don't know what's happening over there. I'm happy 48 that, you know, that there's no war -- there's no 49 conflicts in and around our area, shells going off, 50

Page 91 whatever they use in their bombs or whatever, military 1 2 artillery, weapon -- their weapons. But we also have 3 to consider, you know, natural disasters, natural 4 things happening, volcanos putting up smoke plume way 5 up in the sky, it's going to cover half of the world. 6 Many things that were talked about by our ancestors, 7 many of these Council members know what they talked 8 about in the past, it was going to happen, and we're 9 starting to see some of that. 10 11 And that can be correlated, you know, 12 between one area and then the other area because at that time they were pretty much in the central region, 13 14 I would think towards Mary Igloo, Kawarek -- Kawarek 15 meaning where the sand bars meet, or that -- that 16 interpretation of the word but they -- they kind of 17 went from there and then kind of spread out so that's 18 something that needs to be looked at. 19 20 Thank you. 21 22 ACTING CHAIR GRAY: Go ahead. 23 24 MR. KRON: Mr. Chair. And, again, I'm 25 just trying to condense and consolidate so that when 26 Karen puts this together for your review and signature. 27 28 The first item we talked about was 29 climate induced changes, you know, to the fish, fish 30 kill-offs, algae, and it seems like the permafrost loss and the effects on people, of climate change, those are 31 32 all -- that's like one topic, so my suggestion would be 33 to combine that as one topic, the climate induced 34 changes. 35 36 The second part, I heard contaminants 37 to foods and I would suggest lumping the cancer chan --38 you know, people getting cancer and as a result of what 39 they eat, that we include that in with the contaminants 40 of foods. Because that is where the concern is coming 41 from. 42 43 The third, the letter concerning crabs, 44 which you'll talk about tomorrow. 45 46 And then the fourth, the contaminants from the ocean, radiation, things like that, that are 47 48 not -- it's not a climate issue, it's just poison in 49 the water and what impact is that having on salmon, for 50

Page 92 1 example, or dropping out of the sky. 2 3 So those four items but, again, I'm 4 going to hand this off to Karen -- I don't know if 5 she's on the phone -- Karen, are you on the phone? 6 7 (No comments) 8 9 MR. KRON: Yeah, she was not feeling 10 well and, again, that's why I'm here. But, again, I'll 11 pass this off to her and she'll draft a letter for you to review and sign and -- but this, again, is the 12 meeting when you would actually approve the annual 13 14 report items. 15 16 Thank you, Mr. Chair. 17 18 ACTING CHAIR GRAY: Okay. We got --19 Ron was waving his hand at me a while ago, and Leland 20 will be next. 21 22 (Laughter) 23 24 MR. KIRK: I have one more comment. Elmer brought up something that I never thought of 25 until now concerning Cancer. 26 27 28 Way back when the military first came 29 and the Gold Rush started, they all settled in St. 30 Michael. Now people over there are dying from cancer so you had these people -- the military had a base in 31 32 St. Michael and I don't think they ever did a really 33 good job of cleaning up where they were so they had a 34 tie-line going from St. Michael up that way into the 35 Interior, for communications; that's being cleaned up, 36 slowly. So a lot of this stuff that's happening now is 37 coming from the past into the future. And our elders 38 used to warn us about it, and he's right, we heard 39 about it when we were young and now we're dealing with 40 it today. 41 42 So we need to do a study on our lands, 43 what's coming out of the grounds from the permafrost 44 and also the ocean. We need to have our water tested 45 like we test -- we have our drinking water tested, they're always taking our drinking water samples and 46 47 sending them out to the labs to get tested, why not 48 take our ocean water sample and test it out -- send it 49 out to the labs to get tested for radiation. We live 50

Page 93 1 off that table, that's our table out there. 2 3 Thank you, Mr. Chair. 4 5 6 ACTING CHAIR GRAY: Okay. Leland. 7 MR. OYOUMICK: The reason I mention the 8 contaminants in the land is, I don't know, last year or the year before our IRA had a meeting with the people 9 10 who go around checking for PCBs, they're an outfit out 11 of Anchorage. They take samples from the ground and send them in to see what's in it and if it's bad they 12 13 let the IRA know and then the IRA informs the Army 14 Corps and then they fund the project. That's why I 15 brought this to our attention because I took them to 16 two places and both places had bum stuff in there. 17 18 So that is a fact. 19 20 ACTING CHAIR GRAY: Elmer. 21 22 MR. SEETOT: In our last annual report 23 we had walrus die-off, would these issues that we're 24 stating right now relate -- be connected to the last annual report concerning the die-off or is that a 25 completely different subject that stands alone? 26 27 28 MR. KRON: Mr. Chair. The annual 29 reports that come in from the Councils, sometimes they 30 will ask the same question a second time because they don't like the first answer they got, sometimes they 31 will choose to do totally different topics. It's up to 32 33 you what you want to do, you're the boss. 34 35 MR. SEETOT: I'm just kind of -- just 36 need clarification, our last annual report, would that 37 kind of be related in some way, contamination, or food 38 security issue? 39 40 MR. KRON: Mr. Chair. It could be. 41 It's your call. But again you're referring to the last annual report as an example, you know, is a good one, 42 do you want to restate those things, how do these 43 issues that we've talked about relate to those. Again, 44 45 I've heard -- I've suggested hearing four different 46 main topics. 47 48 And, again, the Federal Board will do its best to try to respond to each of those topics as 49 50

Page 94 1 best they can. 2 3 Thank you, Mr. Chair. 4 5 ACTING CHAIR GRAY: So let me jump in 6 here. My understanding of this walrus die-off was a 7 bloom and the shellfish got toxic and the walrus ate 8 the toxic shellfish and boom we had a die-off. So, you know, I'm not 100 percent sure on that but I thought I 9 10 heard that out on the street. So, you know, there was 11 an answer, I think, over that. 12 13 Leland. 14 15 MR. OYOUMICK: I forgot to mention I 16 took these people up with my boat so it's real close to 17 the edge of the water where this stuff was. 18 19 ACTING CHAIR GRAY: Go ahead. 20 21 MR. KATCHATAG: I would suggest that, 22 you know, when the climate change really started, it started back in 1957 when Russian sent Sputnik into 23 24 orbit. There was an old scientist that said, the world 25 will experience changes throughout the years, and we have. 26 27 28 I've been commercial fishing since the 29 '50s and we used only gunnysacks for our anchors, and 30 after 1957 we had to start getting metal anchors to hold our nets, and now the currents are outrageous out 31 32 there. 33 34 And throughout the years they've sent 35 so many satellites up into orbit, we have no ozone 36 layer, so we're -- so we could expect the sun to beat 37 down on Earth with the intense heat and we're trying to 38 discuss what's happened, we're not trying to do 39 something about what's happening. What we need to do 40 is find a way to learn to adjust to the changes. We 41 can't stop it. We just have to learn to adjust. And 42 the best way I was told is to watch the animals. Watch the animals and learn and live by them because we can't 43 44 change nothing, it's too late; far too late. 45 46 As for global warming. Global warming 47 started back in the Stone Age time, and there's nothing 48 we could do about that either, but continue to learn. 49 50

Page 95 We need to -- what you need to do is 1 2 put out this information in the paper so that the 3 people will learn what started it all, curiosity of man 4 started it all. Money started it all. So we just have 5 to learn to live with it. We're doomed as it is now. 6 7 ACTING CHAIR GRAY: Okay. We have a 8 few things on the list and if we want it to become an 9 annual report we need to make a motion to adopt that 10 list. So.... 11 12 MR. KIRK: So moved, Mr. Chair. 13 14 ACTING CHAIR GRAY: Okay. There's a 15 motion, is there a second. 16 17 MR. OYOUMICK: I second. 18 19 ACTING CHAIR GRAY: Okay. Read the 20 list off to me so we're all on the same page. 21 22 MR. KRON: Okay. And, again, you know, 23 you can decide how you want to put this together. What 24 I heard were four items. 25 26 The first item is climate induced 27 changes and it's having an effect on algae, and fish, permafrost and all that relates to the food items that 28 29 subsistence users are able to get for their subsistence 30 needs. So that's one. 31 32 The second is contaminants. 33 Radioactivity. Chemicals. Petroleum. And how those 34 may relate to cancer that people are seeing in the 35 villages. So that would be number 2. 36 37 The third is the crab issue, which 38 you're going to vote on tomorrow. 39 40 The fourth is the contaminants issue. 41 So separate from climate, or the contaminants of food, 42 but contaminants in ocean, radiation, et cetera and I guess what -- I'm looking at it now, maybe two and four 43 44 could be combined a little bit, I don't know. 45 46 But there are three or four items. 47 And, again, you would need to decide if you want to 48 vote on this. You've got a motion and a second. 49 50

Page 96 ACTING CHAIR GRAY: 1 Is there any.... 2 3 REPORTER: Tom, turn your mic on. 4 5 ACTING CHAIR GRAY: She wants me to 6 push the button. 7 8 (Laughter) 9 10 ACTING CHAIR GRAY: Any more 11 discussion. 12 13 (No comments) 14 15 ACTING CHAIR GRAY: If not I need a 16 question. 17 18 MR. KIYUTELLUK: Question. 19 20 ACTING CHAIR GRAY: Question's been 21 called. All in favor say aye. 22 23 IN UNISON: Aye. 24 25 ACTING CHAIR GRAY: All opposed, same 26 sign. 27 28 (No opposing votes) 29 30 ACTING CHAIR GRAY: Ah, come on, we 31 need one no. 32 33 (Laughter) 34 35 ACTING CHAIR GRAY: Okay. So we're 36 going to have an annual report. 37 38 MR. KRON: Mr. Chair. 39 40 ACTING CHAIR GRAY: Go ahead. 41 42 MR. KRON: Mr. Chair. And, again, as 43 always, you submit an annual report, this is going to force the Federal Subsistence Board and the Staff at 44 45 OSM to put together the response, which ultimately the 46 Board will respond to and approve, and there will be a 47 response back from the Federal Board for these issues. 48 49 Thank you, Mr. Chair. 50

Page 97 ACTING CHAIR GRAY: Okay. Man we're 1 2 almost done with this meeting. 3 4 (Laughter) 5 6 ACTING CHAIR GRAY: So I am down to 7 agency reports. And tribal governments. Anybody from 8 a tribe want to get up and talk about something. 9 10 (No comments) 11 12 ACTING CHAIR GRAY: I can't pick on 13 Roy. 14 15 MR. ASHENFELTER: I did mine earlier. 16 17 (Laughter) 18 19 ACTING CHAIR GRAY: Okay. No tribal 20 governments. 21 22 Native organizations. Anybody 23 representing a Native Organization here. 24 25 (No comments) 26 27 ACTING CHAIR GRAY: Nobody wants to 28 talk. I don't want to talk. I'm a Chairman of the 29 Council Native Corporation but I'm not too interested 30 in talking. 31 32 So, the next thing on the agenda is 33 National Park Service. 34 MS. KOELSCH: Council and Chair. 35 I'm Jeanette Koelsch, and I'm the Superintendent of Bering 36 37 LandBridge. Nikki Braem is our anthropologist and 38 Letty Hughes is our biologist, and they will give some 39 information on projects that are going on in the 40 Preserve. 41 42 I just wanted to let you all know that 43 we have a new District Ranger for the Park, which is our law enforcement Park Ranger. You saw him earlier, 44 45 his name is Mike Thompson. He comes to Nome from Sitka National Historical Park. And he has worked at Bering 46 LandBridge, I believe from 2005 to 2008 previously and 47 48 he has been other places since. But he is now 49 stationed in Nome. And he took, after many years, of 50

Page 98 trying to replace him, Walker Gusse, who now works for 1 2 the BLM, who's back there. 3 4 (Laughter) 5 6 MS. KOELSCH: But so that's who our new 7 Park Ranger is. And then I'll let Letty and Nikki give 8 you guys some info on some wildlife projects and some other projects that might be of interest to the 9 10 Council. 11 12 MS. BRAEM: Hello, again, I guess I'll 13 kick this off. For the record my name's Nikki Braem, 14 I'm the cultural anthropologist at Bering LandBridge. 15 I also work with the permitting process. We allow 16 research activities to happen on Bering LandBridge 17 lands, they have to go through a process, apply and 18 there are some hoops to jump through. 19 20 So we're not going to tell you -- kind 21 of give you an overview for this coming summer field 22 season. We're not going to talk about everything. 23 24 In terms of research that happens in 25 the Park, we're talking about with physical things, 26 biology, land, water, animals, that sort of thing. 27 You can put the two types of research we do into two categories. There's the long-term stuff that's 28 29 National Park Service research, like a -- they call it 30 a vital sign. So there's like a lake vital sign and 31 there's a vegetation vital sign and there's a lagoon vital sign. That happens -- it's going to happen 32 33 throughout time at regular intervals. I won't spend 34 much time on that because that's just kind of regularly 35 occurring stuff. 36 37 But there are four projects in 38 particular that I just wanted to mention that'll be 39 happening this year in the Bering LandBridge. The 40 first one is going to occur in April. And this one is looking at contaminants that are being deposited 41 42 atmospherically, you know, they can travel very long 43 distances. And it's focusing on lichen, well, moss 44 actually too, largely because of their importance in the food chain. So this particular project is going to 45 take samples of snow at 15 locations that are across 46 47 the Northern Seward Peninsula. They'll be looking at 48 sulphur, nitrogen, and some heavy metals that are --49 can be atmospherically deposited. They're doing this 50

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in the wintertime because they want to be able to take 1 2 it at different times of the year to determine its 3 sourcing. Is it happening in the winter months when we 4 don't have ships coming through. It may also allow 5 them to determine the source -- by this testing, they 6 might be able to determine where, in fact, these are 7 coming from, be it the United States, Lower 48, Russia, 8 Southeast Asia. So that's the goal of that one. The 9 main concern for us in all these projects is how do 10 they affect people out on the land. Aircraft can be 11 quite a disturbance, particularly helicopters, we're 12 very cautious about permitting them. So our concern, 13 and we've already consulted with both the Native Village of Wales and Shishmaref, because they're the 14 15 most directly impacted by research in our Park, about 16 -- concerns about them doing this in April and April we 17 finally have snow, people can finally get out on a 18 snowmachine and go caribou hunting. So one of our 19 stipulations is going to be about them sort of scouting 20 out an area and looking to see if there are people out 21 on the land trying to hunt and maybe avoid that area 22 for a period of time and not disturb people who are 23 trying to do their spring hunting. The same thing 24 happens in June. We always ask people to be mindful of 25 how their activities might affect local folks doing 26 their thing. 27 28 The next project is an emperor goose 29 project. Tyler Lewis at Fish and Game is going to put 30 transmitters on -- their goal is 15 to 20 emperor geese. The idea is to figure out where they go. 31 Are 32 they a distinct population from the one down on the YK-33 Delta, which is quite large. They may also do some blood draws and things like that. In talking with 34 35 Shishmaref, they were concerned because they have to --36 basically they have to treat it -- it's a surgery with 37 a veterinarian and so they have kind of like to sedate 38 the goose, capture the goose, sedate the goose and 39 then, you know, anesthetic so they can put the 40 transmitter on, and then something to help them recover, there were concerns about would they, if 41 42 somebody shot one, be safe to eat. So they're changing 43 the labeling on the transmitters which are visible, 44 letting people know about this, the fact that they had 45 to use some drugs on the geese to do this. 46 47 Let's see what else we got. 48 49 Two more I'll tell you about then I'll 50

Page 100 1 let Letty talk. 2 3 I'm giving her a little break. 4 5 6 (Laughter) 7 MS. BRAEM: We also have a seabird die-8 off survey. As you know the last few years we've had issues with different species of bird washing up dead 9 10 or in very bad shape. In most cases when they've 11 tested them it's been related to starvation, unlike the walrus where there was the concern about the algae and 12 the toxins. This is, so far, it looks to be 13 14 starvation. And the Park Service hasn't had dedicated 15 funding to respond to this, but the researcher, 16 Bakanstow (ph), has funding so that we can be a little 17 more reactive when something happens and go out and do 18 aerial surveys and then land and get -- take samples of 19 these birds and test them as these things are 20 happening. 21 22 The final one is, you were talking 23 about contamination, and that could be any variety of 24 things. We already talked about the contaminants with 25 moss. In terms of the changes in the ocean and the lagoon environments, ocean acidification, changes in 26 27 the water chemistry, Tasi Jones has a project, which 28 will be sampling lagoon water and looking at changes in 29 the actual chemistry of the water. They take other 30 things too, they'll get what's in the water, they look at -- they take water temperature and things like that, 31 32 but they will be looking at the actual chemical 33 composition in some of the lagoons so that relates to 34 some of the stuff you've been talking about. 35 36 I think that's all I want to talk with 37 you about right now. Letty will talk about some of the 38 wildlife projects that are going on. 39 40 MS. HUGHES: Thank you. For the record, this is Letty Hughes, wildlife biologist for 41 42 Bering LandBridge based here in Nome. 43 44 I'll just briefly mention this, I'm 45 just going to leave it to Bill with Fish and Game to go into more detail if he wants. We have been working 46 with Fish and Game on aerial population moose survey 47 48 for Unit 22D and E. So that's currently ongoing. And like I said, anything else I'm just going to let Bill 49 50

Page 101 1 talk about it. 2 3 We do have coming up in mid-May with 4 Park Service here with Bering LandBridge, also some --5 the bear biologist out of the Fairbanks office and Fish 6 and Game, we're going to do a brown bear survey and 7 that's going to start mid-May and the last time we did 8 this was in 2015 so it's going to be the same area that's covering up from pretty much the central Seward 9 10 Peninsula so that -- it can be close to two week 11 project because the biggest thing is to, you know, complete it before leaf out and then it becomes a lot 12 harder to find those bears when doing the aerial 13 14 surveys. So it's a pretty big project. It's a good, you know, six, seven Cubs that are, you know, flying so 15 that'll be -- and we'll put out notices also with, you 16 17 know, Shishmaref, Wales and folks so people are aware. 18 19 Right now what I've been working on, it 20 doesn't necessarily relate to the Seward Peninsula, but 21 it's working with doing muskox population survey out of 22 Kotzebue area, so that's with the Cape Krusenstern 23 population. So that's actually where I've been most of 24 my spring and I'll be going back there again to 25 continue working with the muskox out in that area. 26 27 So -- and I'll just mention really 28 briefly and, you know, they had talked about the fish 29 inventory for the FRMP project. So one of the 30 inventory needs was this fish project to come out of 31 Shishmaref to work with a baseline inventory and study. 32 So that was taken on but we also added on to it to look 33 at genetics of the salmon and also age, sex, length of 34 salmon as well so it can be compared to other areas 35 around the Seward Peninsula and also like with Kotzebue 36 when it comes to the genetics. So that is going to 37 occur starting in late summer or early fall. 38 39 MS. BRAEM: One last thing I'll add. 40 You guys were talking -- there was some conversation 41 about the question of wild foods and contaminants and 42 concerns about that. We were kind of talking amongst 43 ourselves, it might be possible, I think Norton Sound 44 Health Corporation has some folks who talk about what's 45 been done in terms of studying wild food, subsistence 46 food versus store bought food and the relative health of each and contaminants loads in each and so it might 47 48 not be a bad idea for someone to reach out to Norton 49 Sound and have them maybe give a presentation at the 50

Page 102 next meeting about what's known right now about 1 2 contaminants in subsistence, different types of 3 subsistence foods. 4 5 And that's all I have unless you have 6 any questions. 7 8 ACTING CHAIR GRAY: All right, guys. 9 Bear study, whooo. 10 11 (Laughter) 12 13 ACTING CHAIR GRAY: Anybody have any 14 questions. 15 16 (No comments) 17 18 ACTING CHAIR GRAY: I'm going to be 19 looking for the end result of the bear study so I'm 20 glad it's happening because I've been a critic of the 21 last few years here. 22 23 Okay, well, thank you girls, and thank 24 you for getting up and enlightening us. 25 26 So where's our BLM quy. 27 28 MR. SPARKS: Waiting patiently. 29 30 (Laughter) 31 32 ACTING CHAIR GRAY: Waiting patiently. 33 We are rolling too fast, that's for sure. 34 35 (Laughter) 36 37 MR. SPARKS: Mr. Chair, pleasure to see 38 you again. Council members. I have Walker next to me, 39 some of you recognize him, he's been up the last couple 40 of years since he joined BLM, it's good to have him 41 here. 42 43 I passed around a little update of the 44 field office. Just want to mention a few things. 45 46 I know in the past the Council's wanted an update on special recreation permits that we give 47 48 out and those are for the primarily big game guides. 49 There were three that we did this last year that are in 50

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your quys' area, if you will. We gave a renewal to Bob 1 2 Hanana of Koyuk and a renewal to Lance Kromberger, and 3 he hunts primarily Nulato Hills. And then another one, it was a new one, to Johnny Richardson, and he's 4 5 hunting out of St. Michael. And many of you might know 6 him, he was hooked up with Jerry Austin's group so he's 7 been around that country quite a while. 8 That's the only ones that directly 9 10 effect -- we have a couple more permits, including 11 Acting Chair has one with the BLM, so there are a number that we have currently besides those. But I 12 told the Board here that I would update you as far as 13 14 any new proposal or what not. 15 16 We did give out six muskox permits this 17 last year. We haven't had a report of harvest yet. I 18 think it's a difficult snow year. We are expecting a 19 storm this weekend. The season closes this weekend, 20 too, so we're hopeful that those people that got a 21 Federal tag can get out and harvest those animals. 22 23 So the only other thing I wanted to mention was the Bering Sea Western Interior, it's in 2.4 25 the little flier here that I handed out. The next step 26 on that is the actual release of the document and then 27 there's a 30 day public protest period after that. 28 29 I did want to mention a few things. 30 Our land use plans are very large documents that kind of give us some guidance as far as Staff and the Bureau 31 32 is how we're going to manage your public lands in the areas. This is the last one for Alaska. It's one of 33 34 the largest that we had left. The current land use plan that's in place for that area is called the 35 36 Southwest Management Framework Plan and that one was 37 done in 1981. So from my perspective it's good to have an updated plan, it's almost 40 years old. It really 38 39 doesn't address things that are happening today. So 40 from my perspective as a Staff member in Nome, I've 41 been with BLM almost 17 years now, I think it's a 42 really good thing to help guide the future management 43 of those lands. So we have taken some criticism, as 44 you heard this morning, from Mr. Austin, and we've 45 heard that out there, we, you know, try to please everyone but honestly that's a difficult bar to reach 46 but we are trying our very best. Again, it's a very 47 48 large document, if any of you have gone in and looked at it and there's a website that you can look at there 49 50

Page 104 that has the current information. 1 2 3 So with that I'd be happy to answer any 4 questions or maybe, Walker, if you have anything to 5 add. 6 7 MR. GUSSE: Good afternoon, Mr. Chair, 8 Council members, Walker Gusse for the BLM, Anchorage 9 Field Office, for the record. 10 11 I don't have anything specific to add. 12 My general message when I come to the Resource Advisory 13 Council meetings is the same message, which is, from 14 the law enforcement standpoint, we really appreciate 15 and we really need cooperation and timely reports. If 16 you see things happening in the field, give us a call. 17 If you don't have our phone number, on the back of the 18 sporthunting regs, is the wildlife safeguard 1-800 19 number, call that, let them know, someone will come 20 out. We work closely with the State Troopers. I'll 21 come out. Maggie will come out. Someone will be out 22 to help. 23 24 MR. SPARKS: I did forget, Mr. Chair, 25 I'm sorry. We did also continue the moose tags in Unalakleet this last year, so we've been doing that for 26 27 quite a number of years. 28 29 So with that I'd be happy to answer any 30 questions. 31 32 ACTING CHAIR GRAY: Go ahead. 33 34 MR. SEETOT: You still -- or BLM still 35 issue permits for the reindeer grazing, up to this 36 point, you know, even though most of them are out with 37 the caribou? 38 39 MR. SPARKS: Yes, we do. 40 41 ACTING CHAIR GRAY: Okay. Any other 42 questions. Comments. One report for muskox was handed 43 to you the other day so you had one -- yeah, my wife's, 44 Katia, remember. 45 46 (Laughter) 47 48 MR. SPARKS: I'm raising my eyebrows. 49 50

Page 105 (Laughter) 1 2 3 MR. SPARKS: Was.... 4 5 ACTING CHAIR GRAY: That's when I 6 picked up John's permit. 7 8 MR. SPARKS: That's when you picked up 9 John's, awww, well, I stand corrected. 10 11 ACTING CHAIR GRAY: Yeah. 12 MR. SPARKS: We've had one harvest out 13 14 of six. 15 16 ACTING CHAIR GRAY: Any other comments, concerns. BLM's got a lot of land, they got lots of 17 18 issues. 19 20 MR. OYOUMICK: Hey, Tom. 21 22 ACTING CHAIR GRAY: Go. 23 24 MR. OYOUMICK: Do you know much about 25 the reindeer -- I mean the caribou they collared, what 26 the collar that they use, what it entails, what goes 27 into it? 28 29 MR. SPARKS: I'd like to defer to Fish 30 and Game, to Bill, to do that. We cooperate with them, mainly on a financial way, but those are their collars, 31 so if I could defer to our State agency on that. 32 Т 33 think Bill's back waiting patiently to get on board 34 too. 35 36 ACTING CHAIR GRAY: Yeah, Bill can 37 answer that question. So if there's no other questions 38 I want to thank you guys for coming in and being 39 patient and waiting. 40 41 (No comments) 42 43 MR. SPARKS: Thank you. And my office 44 is right there on Front Street if anybody wants to stop 45 by, more than welcome any time. 46 47 Thank you. 48 49 ACTING CHAIR GRAY: All right, we are 50

Page 106 1 moving way too fast. 2 3 (Laughter) 4 5 ACTING CHAIR GRAY: You guys that got 6 per diem, you're going to have to turn in some of your 7 per diem. 8 9 (Laughter) 10 11 ACTING CHAIR GRAY: Okay, Fish and 12 Game. Bill. 13 14 MR. DUNKER: Good afternoon, Mr. Chair. 15 For the record I'm Bill Dunker, I'm the Unit 22 area 16 biologist. I'm joined here also with Sara Germain, our 17 assistant area biologist here in the Nome office. 18 19 I apologize, if any of this is 20 redundant, I know you guys covered some of the 21 regulatory changes that were adopted by the Board at 22 our January meeting here in Nome, actually right here 23 in this room, but I did want to just recap at least the 24 proposals that were adopted by the Board and some of 25 the other actions that the Board took on some of those 26 proposals. 27 28 So Proposal 31, right out of the gate 29 there, was a proposal that was submitted by the Middle 30 Yukon Advisory Committee to establish a registration 31 permit hunt for muskox in Units 21D, 22A, and 24D. 32 That proposal was deferred to the Fairbanks meeting so 33 that they could deal with the proposal in its entirety. 34 The 21D and 24D portions of that proposal weren't on 35 the call for proposals at our meeting, so the Board 36 actually took that proposal up vesterday and as part of 37 they had to address the lack of a C&T or customary and 38 traditional use determination for that portion of the 39 proposed hunt area in 21D and 24D. They found a 40 negative C&T determination for 21D and 24D. And in 41 their deliberations yesterday adopted regulations to 42 implement a draw permit for Alaska residents in 21D and 43 24D. That portion of the proposed hunt area in 22A is 44 currently included within the definition of the Seward 45 Peninsula muskox population and has a positive 46 customary and traditional use determination. As a 47 consequence, subsistence uses are provided for above 48 all other uses and the, Board, in their deliberations 49 yesterday adopted regulations that would implement a 50

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Page 107 hunt in 22A based on the current ANS for the Seward Peninsula muskox population of 100 to 150 and so with that we will start off with a Tier II muskox hunt in 22A. That hunt will likely be included in the subsistence supplement this coming fall and folks will have the opportunity to apply for hunts that'll take place in 2021 and 2022 in November and December of this coming year. The next proposal, Proposal 30, that was a proposal to include muskox on a list of species that can be taken under a proxy permit. That proposal was deferred to the statewide meeting and will be considered at the next statewide meeting. Proposal 33 was a department proposal that was submitted both to the State Board of Game and to the Federal Subsistence Board to modify the season dates and permit requirements for moose hunting in 22D remainder. The Board adopted that proposal as written, basically. And followed suit with a similar recommendation that you guys put forward to the Federal Subsistence Board. So with that, this coming fall, the 22D remainder hunt area will be included as a separate hunt area within the RM840 permit hunt and will be administered accordingly. Along with that change in the regulation, we do have plans to travel to Brevig and Teller during the time period that we'll be issuing 29 those permits to do some outreach with folks in those areas that maybe aren't as familiar with the registration permit, how it works, the requirements that go along with it so that folks in those communities are well aware of what the changes are and how it might affect them. The next proposal would be Proposal 35. It was a public proposal that sought to change the availability of Unit 22 registration permits for moose hunting. Basically the proponent of the proposal sought to limit the timeframe in which those permits were made available. The Board ultimately adopted the proposal with an amendment to allow for those permits and we're only going -- this will only affect the RM840 registration moose permits. Those permits will be made available from July 25th to August 25th and will not be made available thereafter or during the course of the season and portions of the hunt area there. So folks will have to pick them up basically before the start of the hunt in most, if not -- in most of the hunt areas

Page 108 1 there. 2 3 I'm skipping over a lot of these 4 because most of them -- a good number of them were not 5 adopted by the Board or not passed. So these are 6 specifically the ones that will change this coming 7 year. 8 9 So Proposal 38 was a proposal that was 10 submitted by the Department to, in reality, kind of 11 address some housekeeping issues related to the RM841 12 moose permit in the Unalakleet area. We've had a long 13 history of issuing season extensions for the hunt in 14 that area in order to allow for folks to take advantage 15 of the opportunity provided and harvest the available 16 surplus of moose in that area. The season was extended 17 from a closing date of September 20th to a closing date 18 of September 30th during the RM841 season, and the 19 winter season was extended from December 1st to 20 December 31st, December 1st to January 31st. The 21 intent there was to basically include the full range of 22 season dates that have been administered historically 23 through season extensions. 24 25 The Southern Norton Sound Advisory 26 Committee also provided an amendment to that proposal that was adopted by the Board to modify the northern 27 28 boundary of that hunt area to basically deal with an 29 issue that has come to light in recent years related to 30 sort of some of the traditional hunting areas for folks 31 in Shaktoolik that basically have been overlooked for a 32 number of years and were a part of that RM841 hunt. 33 And so the boundary, the northern boundary was subsequently changed by the Board from south of the 34 35 Tagoomenik and Shaktoolik River drainage to south of 36 and including the Agavaik (ph) Creek drainage. So it 37 cuts out a very small portion of the hunt area and puts it in that northern portion, in the Shaktoolik area and 38 it was supported by all the members of the Southern 39 40 Norton Sound AC down there. They subsequently 41 submitted a wildlife special action request to the 42 Federal Subsistence Board that is, as I understand it, 43 hasn't been taken up by the Board to align that season 44 date -- or excuse me, to align that boundary with the 45 State and Federal regulations. And so if it's not 46 dealt with the by Board this year I would expect to 47 address that in future regulatory cycles. 48 49 And the last couple here related to 50
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1 brown bears. 2 3 Proposal 41 was a proposal that sought 4 to extend the season dates for brown bear hunting in 5 22B and C. The season date for Alaska residents was 6 extended to June 30th in that area and the season dates 7 for non-residents was extended to June 15th in that 8 area. They also adopted a regulation to require a registration permit for all brown bear hunting that 9 10 takes place in Unit 22C so in the local area here 11 around Nome. That was part of a separate proposal, it was ultimately worked into the proposal as amended for 12 13 Proposal 41. 14 15 And lastly, Proposal 39 was a proposal 16 -- public proposal that sought to extend the season for 17 brown bear hunting in 22D and 22E and also had an 18 increase in the bag limit from one bear every 19 regulatory year to two bears every regulatory year and 20 the season date changes in that proposal were to extend the closing date for both residents and non-residents 21 22 from May 31st to June 15th. 23 24 So that's all of the regulatory changes 25 for -- that were adopted by the Board that relate to 26 Unit 22 specifically. 27 28 I talked about that one -- all right, 29 let me get back to my notes here. 30 31 As Letty mentioned, we're currently 32 under way with a cooperative project with contributions 33 from both the Park Service and BLM to estimate moose abundance in Unit 22E and 22D. We've implemented a 34 35 different sampling strategy for this year compared to what we've done in past years. We've kind of shied 36 37 away from the GSP technique and are utilizing an adaptive cluster sampling methodology. So this is the 38 39 first go around for this type of sampling and I can 40 tell you right now that there will be plans, once we're 41 completed with the project, to share all the results 42 and some of the things that we learned from this 43 project with you guys in the future. We're not done 44 with it as of yet, we're fourth and goal at this point, 45 I've been using football metaphors all week, so I'm 46 just going to keep going with it. But we're very near to completing the project in both 22D and E. And thus 47 48 far, things are looking good in that neck of the woods. 49 All the pilots and observers that I've talked to that 50

Page 110 have participated in the project have noted just how, 1 2 in what amazing condition the animals are, with as little snow as we've had, they've been able to stay in 3 4 some of the upper drainages where they typically can't 5 due to snow conditions in most years. So really good looking crop of moose calves this year, good condition, 6 7 and hopefully we'll get a better understanding of that 8 once our research biologist, Warren Hanson, gets out into the field to weigh some of those moose calves this 9 10 coming spring. 11 12 So future activities. 13 14 Letty also mentioned the bear survey. 15 Fish and Game will be participating in that project 16 this coming spring and that'll be hopefully the second 17 time we've been able to complete that survey and then 18 we'll be basically making preparations for survey and 19 inventory activities this coming fall. Our plan at 20 this point is to do a fall composition survey in 22A, in the Unalakleet drainage, followed by a moose survey 21 22 in the area the following spring, which will be paired up with a Seward Peninsula range-wide composition and 23 24 abundance survey in the spring of 2021. 25 26 So those are a couple of things just to 27 be looking forward to. 28 29 Along those, I guess, same lines in 30 terms of some of the recent regulatory changes and some of our plans for outreach, we do plan on traveling down 31 32 to Unalakleet and Shaktoolik to talk with folks in 33 those areas, again, to just make sure that hunters in both communities are aware of the new regulatory 34 35 changes related to both the season dates and the 36 boundary changes in that northern and central 22A hunt 37 areas. 38 39 And then lastly, you know, along the 40 same lines as our plans for survey and inventory 41 activities related to the moose population in 22A, we 42 are currently above the population objective for moose 43 in 22A. And so part of the discussion moving forward will have to include both with members of this RAC and 44 45 our local ACs and local community members in 46 Unalakleet, is the understanding that one of the things we'll need to start considering is sort of the 47 48 ultimate, I quess, carrying capacity of moose in that 49 area and evaluating potential resource limitations in 50

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the future in the event we reach a point where we have 1 2 too many moose in that area and have to take management 3 actions to reduce the population in order to maintain 4 it within a reasonable level that doesn't result in 5 degradation to the habitat in that neck of the woods. 6 7 So I guess that's just something to be 8 aware of down the line, you know, with more moose, there comes some other opportunities for hunting and 9 10 the real consideration of resource limitation concerns. 11 And so I just wanted to put that out there right now so that folks are aware when we start talking about all 12 these different things coming down the line, that it's 13 14 not the first time you've heard of them. These are all 15 kind of things that come along with improving and 16 growing moose populations. 17 18 So I guess with that that's all I had 19 to share with you guys today. I'd be happy to answer 20 any questions that you might have about some of the 21 regulatory changes and our plans for the future. 22 23 So, thank you, Mr. Chair. 24 25 ACTING CHAIR GRAY: We want to hear her 26 talk. 27 28 (Laughter) 29 30 MR. KIRK: Yeah. Yeah, Bill, let her 31 talk. 32 33 (Laughter) 34 35 ACTING CHAIR GRAY: She can answer all 36 the questions. 37 38 (Laughter) 39 40 ACTING CHAIR GRAY: Go ahead, Leland. 41 42 MR. OYOUMICK: Almost since I first heard about your people collaring caribou, I wondered 43 44 if there was other capabilities that collar has, is 45 there capability of that collar being able to herd a caribou and then the rest would follow; that's how 46 47 caribou would go, they follow a leader. So I was just 48 curious about that for my own information, you know. I 49 don't know that fact. I never seen a schematic or a 50

Page 112 drawing of the -- whatever's inside there. But I don't 1 2 think there is but I just wondered from inception of 3 this kind of thing. 4 5 MR. DUNKER: Thank you, Mr. Chair. So 6 the collars that we typically deploy are a combination 7 of different technologies. They have a VHF transmitter 8 on them, which is just a very high radio frequency that admits a beep that allows us to locate that animal in 9 10 real time using an aircraft and then the vast majority 11 of the collars that we put out there are also either GPS or PTT collars, and I can't remember what PTT 12 stands for, but basically they're taking locations of 13 14 the animals and communicating that back to us via 15 satellites and so we are able to sort of monitor the 16 movement of these animals throughout the season to 17 determine if they're, you know, changing their 18 distribution or utilizing different portions of their 19 wintering range, you know, calving in different areas 20 which they're not, they're in the tradition calving area, but if they were to start calving someplace else 21 22 that's some of the information we would be able to 23 glean from those collars. 24 25 There's no, you know, there's no two-26 way sort of communication with us or any sort of, you know, technology or accessories on those collars that 27 28 would influence the animals behavior. Our ultimate 29 goal is ultimately the exact opposite, when we put 30 these collars on animals the expectation is that they 31 are representative of the population as a whole, 32 they're not going to be negatively impacted by the 33 collars and they're not going to influence their behavior in any way. So they're intended to be sort of 34 35 silent observers as they go for a ride with the caribou 36 that's wearing the collar. 37 38 ACTING CHAIR GRAY: Very good. You're 39 too thorough. 40 41 (Laughter) 42 43 ACTING CHAIR GRAY: Anybody else have 44 any questions. 45 46 (No comments) 47 48 ACTING CHAIR GRAY: So I thank you all 49 and next year she's got to give the report. 50

Page 113 (Laughter) 1 2 3 ACTING CHAIR GRAY: Okay, thanks so 4 much. So I'm going to call for a smoke break, I don't 5 smoke but you guys -- you don't want to take a smoke 6 break, okay. 7 8 MR. SEETOT: We could finish. 9 10 ACTING CHAIR GRAY: Everybody's wanting 11 to finish. 12 13 MR. SEETOT: I mean for today and 14 tomorrow we still got something tomorrow. 15 16 ACTING CHAIR GRAY: So it's a quarter 17 after 4:00 right now, we have Office of Subsistence 18 Management. Oh, he's all ready, look at him. 19 20 (Laughter) 21 22 ACTING CHAIR GRAY: Tom wants to get 23 this over with. 24 25 (Laughter) 26 27 ACTING CHAIR GRAY: Come on now let us 28 pick on you a little bit at least. 29 30 (Laughter) 31 32 ACTING CHAIR GRAY: Okay. We're going 33 to let him -- he's up next. 34 35 MR. SEETOT: Okay. 36 37 MR. KIRK: He's got his hat on. 38 39 ACTING CHAIR GRAY: Go ahead, Tom. 40 41 MR. KRON: Mr. Chair. Members of the 42 Council. Again, I've passed out copies of the OSM 43 report. 44 45 And I'll start off first talking about 46 the meeting schedules. I think as some of the Council 47 members across the state are aware, OSM had to reschedule the winter 2020 Council meetings into March 48 and the first week of April to ensure compliance with 49 50

Page 114 the Federal Advisory Committee Act. And, again, thanks 1 2 to all for their patience and for working with us to 3 get these meetings rescheduled so that they would be in 4 compliance with this act. 5 6 Updated Council charters have been 7 included in each Council book which includes new 8 provisions to allow Councils to have alternate members. Pages 41 through 45 of your Council book includes your 9 10 charter for this Seward Peninsula Council. We are 11 pleased that the Secretary of Interior signed the Council charters making them valid through December 12 13 2021. Last year the Federal Subsistence Board received 14 63 applicants to fill 46 vacant or expired seats. The 15 Board recommended to the Secretaries of Interior and Agriculture to appoint or reappoint 42 incumbents and 16 17 new applicants to the 10 Councils. Of these 22 18 appointments were approved and arrangements were made 19 for these individuals to participate in the winter 2020 20 Council meetings. 21 22 OSM pushed harder than ever to recruit 23 for additional Council member nominations and applications for the current appointment cycle, plus 24 25 the Council nomination application deadline was 26 extended through March 2nd. 27 28 I think as many of you know, Gene 29 Peltola vacated the Assistant Regional Director 30 position at OSM in June 2018 and over the last 21 months, Tom Doolittle did an outstanding job leading 31 32 OSM as the Acting Assistant Regional Director for OSM, 33 thanks much to Tom for all of his good work. 34 Ms. Susan Detwiler was recently 35 36 selected to be the new Assistant Regional Director for 37 OSM, the Assistant Regional Director. She expects to be here by the end of March. She has over 25 years of 38 39 experience working in Alaska with the U.S. Fish and 40 Wildlife Service primarily and the U.S. Forest Service. 41 She first went to work for OSM and the Fish and 42 Wildlife Service in 1989 when the subsistence program 43 consisted of just two people. After leaving OSM in 44 2000, Sue went to work in other areas with Fish and 45 Wildlife, including as the Congressional and Native 46 American Liaison and Endangered Species Coordinator in Alaska and the Wildlife and Sportfish Restoration 47 48 Division Chief in the California and Nevada region. 49 50

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Ms. Detwiler has over 30 years of 1 2 Federal service. She has a Master's Degree in natural 3 resource policy from the University of Alaska-Fairbanks, and a Bachelor's degree in wildlife 4 5 management from Humboldt State University. Most 6 recently, Sue comes from the Director for the Alaska 7 Operations Office. Sue said that she enjoyed her time 8 with the Subsistence Program and is very happy to be coming back. Please join us in welcoming Sue back to 9 10 OSM. 11 12 Since the fall 2019 Council meetings 13 there have been a number of additional Staffing changes 14 at OSM. Tom Evans, one of our wildlife biologists 15 retired while another wildlife biologist, Megan 16 Klosterman, left OSM for a position with the National 17 Park Service in North Dakota. Our budget analyst, Durand Tyler, took a promotion with the new Joint 18 19 Administrative Operations Division, or JAO. Even in 20 his new position, Durand has continued to help arrange travel and logistics for these winter 2020 Council 21 22 meetings. OSM's executive secretary, Pam Raygor, left 23 for a promotion at the Bureau of Safety and 24 Environmental Enforcement. Our pathways anthropology student, Christine Brummer, left to finish her Master's 25 degree. Jared Stone, a fisheries biologist with the 26 Fisheries Division took a promotion with the Alaska 27 28 Fish and Wildlife Service Marine Mammals Program. 29 30 With these departures OSM Staffing was 31 down about 40 percent. 32 33 The good news is that OSM filled four 34 vacancies in this past month. Tina Baker, took a 35 lateral transfer from the JAO Division to become OSM's 36 administrative specialist. Michelle St. Peters, 37 returned to OSM after working for the Wildlife Sportfish Restoration Program for about a month to 38 39 resume her duties as a grants and agreement specialist. 40 While Sabrina Schmidt and Catherine Avery were selected 41 to fill two vacant administrative assistant positions. 42 43 With the new arrivals, OSM is still 44 down about 35 percent, however, by the end of this 45 calendar year we hope to fill an additional three to 46 four additional vacancies. OSM is currently waiting on human resources to advertise one fishery biologist 47 48 position, and the anthropology and Council coordination 49 supervisor positions leaving us down 28 percent. 50

Page 116 1 Thank you, Mr. Chair. Members of the 2 Council. 3 4 I'd be happy to answer any questions 5 that you have. 6 7 Thank you. 8 9 ACTING CHAIR GRAY: Very good. 10 Precise, to the word there. 11 12 (Laughter) 13 14 ACTING CHAIR GRAY: Anybody have any 15 questions. 16 17 18 (No comments) 19 20 ACTING CHAIR GRAY: Okay. I thank you 21 so much. Okay, we've got a few things left that I see on my thing and I got a feeling we can be done with 22 23 this meeting today if we just keep at it. 24 25 So one thing I have is election of 26 officers. 27 28 The next thing I have is a letter 29 talking about the subsistence crab issue. 30 31 Then future meeting dates, fall and a winter date. And I just looked at dates, I'm going to 32 33 be in Mexico at the next meeting so buyer beware. 34 35 (Laughter) 36 37 ACTING CHAIR GRAY: Of course that all 38 depends on the Corona virus, uh. So, anyway, what do 39 you guys want to do, you want to keep rolling, you want to stop and come back in the morning, what do you want 40 41 to do. 42 43 MR. KIYUTELLUK: Be done for the day. 44 45 ACTING CHAIR GRAY: Uh. 46 47 Roy. 48 49 MR. ASHENFELTER: Mr. Chair. I thought 50

Page 117 the Council, or the RAC took action on the letter to 1 2 the crab. 3 4 ACTING CHAIR GRAY: No, not yet. 5 6 MR. ASHENFELTER: Okay. 7 8 ACTING CHAIR GRAY: So what we were 9 going to do is wait for Jim to come in and give a 10 report on whatever he wanted to do and then we were 11 going to talk about a letter, whether or not we wanted to draw something up and send it on. But, you know, if 12 we keep pushing on today we're not going to hear Jim 13 14 tomorrow. It's -- do you guys want to hear Jim or do 15 you want to keep pushing and be done. It's up to you 16 guys, I'm easy. 17 18 (No comments) 19 20 ACTING CHAIR GRAY: Okay. I'm going to 21 make an executive decision. I'm going to -- we don't 22 know if Jim's going to show up or not so I'm not going 23 to put our eggs in a basket and wait until tomorrow, we'll finish up the meeting and be done with it. 24 25 26 Okay. 27 28 So now the next thing on the agenda is 29 do we want to send a letter addressing the crab issue. 30 31 MR. KIRK: From Roy. 32 33 (Laughter) 34 35 ACTING CHAIR GRAY: And the letter is going to the Board, remind me where we're writing it 36 37 to. 38 39 Go ahead. 40 41 MR. KRON: Mr. Chair. My understanding 42 from the discussion this morning was that this would be a letter to the scientific committee..... 43 44 45 ACTING CHAIR GRAY: Yes, okay. 46 47 MR. KRON:of the North Pacific 48 Fishery Management Council. And basically raise the 49 concerns that subsistence users in the Norton Sound 50

Page 118 region have and ask for consideration and help. 1 You 2 know, again, my understanding, I called during the 3 lunch break and talked to the ADF&G representative, 4 liaison, and he was going to -- he was still trying to 5 get a hold of Mr. Menard and my suggestion, when I 6 talked to him at lunchtime was that he be here at 9:00, 7 try to be here at 9:00 because I was guessing, again, 8 this might be the very first item you'd take up. But, again, I don't -- I assume that he is still trying to 9 10 get a hold of Jim Menard, but, again, I don't know if 11 that has happened. 12 13 But back to your original question, the 14 letter that was discussed was to the scientific 15 committee of the North Pacific Fishery Management Council and raising concerns, requesting help in 16 17 dealing with the crab resource, to protect it for 18 future generations. 19 20 Thank you, Mr. Chair. 21 22 ACTING CHAIR GRAY: Okay. So my 23 remembrance is we are writing a letter in support of shutting down the crab fishery. And using Roy and 24 25 Charlie to help us correctly write that letter so it will impact or it will have the impact that it needs 26 for future, you know, and the bottom -- if you listen 27 28 to Charlie it's going to be -- they're going to try and 29 shut this thing down for two or three years, and right 30 now the only thing that has been blessed is the summer 31 crabbing. They're not going to be able to shut down 32 the crabbing that's happening now. And so the only --33 in April it'll shut down and it'll be shut the rest of 34 this year. 35 So the intent of the letter that I 36 37 vision is to support shutting it down for commercial fishing until it's viable, the fishery is viable to 38 39 sustain a commercial fishery. And in the mean time we 40 need to ensure that our subsistence users are put on a 41 pedestal, or whatever, you know, I'm not good at 42 writing letters, I'm good at criticizing them. 43 44 (Laughter) 45 46 ACTING CHAIR GRAY: So, anyway, Roy. 47 48 MR. ASHENFELTER: Thank you, Mr. Chair. 49 Members of the RAC. I was at the meeting yesterday 50

Page 119 with the Board of Fish. I do have the letter from 1 2 Kawerak in our efforts to encourage the Board of Fish 3 to take action to close the commercial fishery for 4 crab. 5 6 My recommendation for those that would 7 be really critical and helpful in drafting a -- oh, the 8 other thing I wanted to mention was, there was Charlie 9 Lean there, Scott Kent and one..... 10 11 ACTING CHAIR GRAY: Wes Jones. 12 13 MR. ASHENFELTER:Wes Jones. 14 Those are the guys that I would really recommend having 15 help draft the letter. When I was there, I was lost, 16 because they were talking recruitment, eggs, the 17 studies, you know, they're talking the biological 18 information that I don't have any expertise in. And 19 with their efforts today, from what I heard -- and we 20 all heard from Charlie Lean, they were able to get the Board of Fish to close the commercial fishery for one 21 22 year starting, you know, later on after the winter crab 23 fishery. So my recommendation would be to use the 24 biologists that are knowledgeable about the details 25 that would be helpful for this RAC committee to submit to the STC of the North Pacific Fishery Management 26 27 Council. Kawerak would be willing to help, but our 28 only -- the point I'm trying to make is -- we're all in 29 agreement that our subsistence crab fishery is 30 important, that the subsistence crabbing so far has been poor, limited and there's been limited success. 31 32 That's what we've been able to say and, you know, 33 because that's just what's happening. And I'm hoping 34 that you'd allow Charlie to work with those that would 35 best come up with the information that would be really 36 helpful. 37 38 And then the only other recommendation 39 would be that the RAC would then review it and the 40 Chair would sign it and then it would go on. 41 42 ACTING CHAIR GRAY: Yeah, so, you know, 43 what I'm fishing for and what I am looking for in a 44 letter is I would like to see language in this letter 45 eluding to a sustainable commercial -- what do you call it -- sustainable commercial number of crab out there 46 47 before it's opened up. So the letter is directing this 48 scientific committee, or Board of Fish, or whoever, 49 that it's not a one season thing, it's as long as it 50

Page 120 1 takes to bring it back. 2 3 Does that make sense to you? 4 5 (Council nods affirmatively) 6 7 ACTING CHAIR GRAY: Yep. Tom. 8 9 MR. KRON: Mr. Chair. And, again, I 10 think Mr. Lean offered to help with this. I'd like to 11 get a copy of the Kawerak letter from Roy to give that to Karen, but, again, my intent, assuming you decide to 12 13 move ahead with this, my intent would be to give all 14 this information to Karen and when she gets well she'll 15 work with you, you would sign it on behalf of the 16 Council, so your editing and review skills are going to 17 come into play like you talked about. 18 19 (Laughter) 20 21 MR. KRON: Thank you, Mr. Chair. 22 23 ACTING CHAIR GRAY: So I'll entertain a 24 motion that we draw up this letter and use the experts that have been involved in this, Charlie and Scott Kent 25 26 and Wes Jones as tools to help write this letter to the 27 scientific committee and alluding to shutting this commercial fishery down until there's a sustainable 28 29 biomass that will not touch our subsistence fishery. 30 31 So anyway we need a motion that alludes 32 to that. 33 34 MR. BURCH: Mr. Chair, this is Mark 35 Burch, if I might interrupt if you don't mind. 36 37 ACTING CHAIR GRAY: Hop in there. 38 39 MR. BURCH: I have been able to confirm that Jim intends to be there along with Jenn Bell in 40 the morning, if you're still working on this subject. 41 42 The only thing that would mess that up is if his flight 43 is delayed. So that's what I can tell you about Jim's intention as of now. I don't know that that's helpful 44 45 at this point but I just thought I'd pass it along. 46 47 Thank you, Mr. Chair. 48 49 ACTING CHAIR GRAY: Okay. So he's on 50

Page 121 1 tomorrow morning's flight? 2 3 MR. BURCH: Sounds like either late 4 tonight or tomorrow morning is what I'm inferring. 5 6 Thank you, again. 7 8 ACTING CHAIR GRAY: Okay. Because if 9 he makes it in tonight then he'll be here at 9:00 10 o'clock. If he doesn't make it here tonight it will be 11 noon, 1:00 o'clock before we see him. 12 13 MR. BURCH: The note I have says that 14 he'll be there in the morning unless his flight's 15 delayed. So that would tend to make me think that he's 16 flying tonight. 17 18 ACTING CHAIR GRAY: Awesome. Awesome. Okay, well, I don't have a problem resuming in the 19 20 morning and just letting go now and finishing up, it 21 shouldn't take a couple hours in the morning and that 22 way we'll -- we wanted Jim here to talk to us, so I 23 think that's fair to him. 24 25 What do you guys -- how do you guys 26 feel? 27 28 MR. KIRK: Recess until tomorrow. So 29 moved. 30 31 MR. SEETOT: Second. 32 33 ACTING CHAIR GRAY: All in favor say 34 aye. 35 36 IN UNISON: Aye. 37 38 ACTING CHAIR GRAY: Okay. What was 39 your name, Mark, that interjected. 40 MR. BURCH: Yes, I'm sorry, Mr. Chair. 41 42 For the record my name is Mark Burch, B-U-R-C-H. 43 44 ACTING CHAIR GRAY: Well, thank you for 45 jumping in there. Because of you jumping in we decided to wait on any action on a letter until tomorrow. 46 47 48 MR. BURCH: Well, thank you. That's what I'm here for and I hope for good weather tonight. 49 50

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