EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

November 14, 2017 10:00 a.m. USGS Alaska Pacific University Campus Anchorage, Alaska

TRUSTEE COUNCIL MEMBERS PRESENT:

U.S. FOREST SERVICE: Terri Marceron AK DEPARTMENT OF FISH & GAME: David Rogers AK DEPARTMENT OF LAW: Steve Mulder AK DEPART OF ENVIRON CONSERVATION: Larry Hartig U.S. DEPARTMENT OF INTERIOR Stephen Wackowski U.S. DEPARTMENT OF COMMERCE, NOAA: Jim Balsiger

Proceedings electronically recorded, then transcribed by: Computer Matrix Court Reporters, LLC 135 Christensen Drive, Suite 2 Anchorage, AK 99501; 243-0668

1	ALSO PRESENT:
2 .	Elise Hsieh, Executive Director, EVOS Cherri Womac, EVOSTC Staff
3	Lauri Adams, EVOSTC Habitat Shiway Wang, EVOSTC Science Coordinator
4	Helen Woods, ARLIS Linda Kilbourne, EVOSTC Administrative Manager
5	Peter Hagen, NOAA Ron Britton, USFS
6	Rick Steiner, Oasis Earth Sara Pace, ARLIS
7	Phil Johnson, USDOI David Mitchell, Great Land Trust
8	Sherri Dressel, ADF&G Vernoica Varela, USFWS
9	Joe Darnell, USDOI SOL Elizabeth Gobeski, USDOI SOL
10	Kurt Eilo, PAC Chair Pys Miranda, ADNR
11	Mark Fink, ADF&G Scott Pegau, PWS OSRI
12	Mandy Lindeberg, NOAA Fisheries Carol Janzen, AOOS
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Page 3 ALSO PRESENT (CONTINUED) Teleconference: David Rogers, ADF&G Andrew Whitehead Dede Bohn, USGS Retired Craig O'Connor, NOAA Sylvia Kreel, ADNR 

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Page 5 PROCEEDINGS 1 2 (Anchorage, Alaska - 11/14/2017) 3 (On record) 4 MS. HSIEH: If I may..... MR. MULDER: Yes. 5 6 MS. HSIEH: ....please. We have David Rogers, 7 the Department of Fish and Game Trustee on the phone 8 today. He's feeling a little under the weather so he's 9 calling.... 10 MR. ROGERS: Hi, everybody. 11 MS. HSIEH: .....he's calling in from Juneau. 12 So because we do have someone on the phone we'll be 13 just asking him to affirm his vote, the rest of you 14 don't have to. That's kind of the process that has 15 evolved over time when people are on the phone so that we know they're -- understand what's going on as the 16 meeting progresses. 17 18 Thank you. 19 MR. ROGERS: Sorry. 20 MR. MULDER: So have all the Trustees had a 21 chance to review the revised agenda and are there any 2.2 additions or changes. 23 MR. BALSIGER: I move we approve the agenda. 24 MR. MULDER: Do I have a second. 25 MS. MARCERON: Second.

Page 6 MR. MULDER: David, do you vote in favor of the 1 2 approval of the agenda? 3 MR. ROGERS: No obj -- yes, I vote to approve. MR. MULDER: All right. And hearing no nays 4 here in the room, the agenda is approved. 5 The next item on the agenda is the approval of 6 7 the January 11, 2017 meeting notes. There was a 8 meeting on January 11th. Is there ..... 9 MR. HARTIG: Move to approve. 10 MR. MULDER: Move to approve. Is there a 11 second. 12 MR. BALSIGER: Second. 13 MR. MULDER: Any discussion or changes. Ι 14 think we've got David's name spelled correctly this go 15 around. 16 MR. ROGERS: Thank you. David, are you in favor of 17 MR. MULDER: 18 approval of the.... 19 MR. ROGERS: Yes. 20 MR. MULDER: Yes. 21 Yes, I approve. MR. ROGERS: 2.2 MR. MULDER: Yeah. Anybody object. 23 (No objections) 24 MR. MULDER: Okay. Meeting notes are approved. 25 The next thing on our agenda is the time for public

Page 7 comment. Do we have a sign up sheet. 1 2 MS. HSIEH: I don't think it's a sign up as 3 who's attending. I think maybe we could find out who's on the phone for public comment and then go around the 4 room and see who with their own. 5 MR. MULDER: All right. 6 7 MS. HSIEH: Does that sound okay? Did they 8 check for -- oh, here -- I'm sorry. Yes. We have one 9 person speaking today, Rick. Anyone else speaking 10 today? 11 (No comments) 12 MS. HSIEH: Okay. So we have one person here 13 and we should just check who's online. 14 MR. MULDER: All right. Is there anyone on the 15 phone who would like to give public comment? 16 (No comments) MR. MULDER: Hearing none, Mr. Steiner, you're 17 18 up. 19 MR. STEINER: Here? 20 MR. MULDER: Yes, please. Thank you. 21 MR. STEINER: Thank you very much. For the 2.2 record my name is Rick Steiner, I was the university's 23 -- for those one or two that I don't know, I was the 24 university's marine advisor for the Prince William 25 Sound region in 1983 until 1997. So both before and

Page 8 during. 1 2 MR. WACKOWSKI: Do you need a microphone? 3 MS. STEINER: Do i? MR. WACKOWSKI: Yes. 4 MR. STEINER: I can speak into the stand if 5 that would help..... 6 7 MR. WACKOWSKI: Yeah. 8 MR. STEINER: .....I don't suspect it will. Again for the record, Rick Steiner. I was the 9 10 university's marine advisor for Prince William Sound 11 region stationed in Cordova for 15 or 16 years and I've 12 been involved -- and I was a commercial fisherman in 13 the region and have been involved with the Trustee Council process since its inception. 14 And I'd 15 appreciate these comments to be transcribed for the record, would greatly appreciate that. 16 First of all I think the Trustee Council 17 18 continues to betray its fundamental responsibility of doing everything possible to assist in the recovery of 19 20 the injured ecosystem. And particularly its 21 responsibility to approach restoration from a 2.2 comprehensive ecosystem context. 23 MR. WACKOWSKI: Did you say -- I'm sorry, did 24 you say portray or betray? 25 MR. STEINER: Betray.

Okay. Thanks. 1 MR. WACKOWSKI: Sorry. 2 MR. STEINER: To fail, to fail to do everything 3 possible to protect and recover the ecosystem. And in 4 particular as directed by the Restoration Plan to fail to look at this from an ecosystem, comprehensive 5 context. 6

7 And specifically I wanted to mention Bering 8 River. We've been proposing this for over 20 years, to the Trustee Council directly for at least the past four 9 The Bering River, Eastern Copper River Delta in 10 years. 11 my view, in many people's view, offers the last best 12 opportunity for the Trustee Council to restore and to 13 offset the injured resource services and injured resources from the Exxon Valdez Oil Spill. 14 This is 15 your single, biggest opportunity left in many of our views. And it's not for a high dollar value, I think 16 it's very -- you know, you could do it very reasonably. 17

18 Chugach Alaska Corporation has already done a 19 lion's share of the job in the Eastern Copper River 20 Delta, probably 75 or 80 percent of the surface of the 21 area has been protected with no government involvement 2.2 whatsoever other than the California carbon market. 23 And that's a real salute to the private sector doing 24 The rest of the job has to be done by the job here. 25 the EVOS Trustee Council. And that's the big Bering

River Coal Field needs to be retired in perpetuity. 1 2 There's enormous public support for this, 3 Cordova District Fishermen United, the City of Cordova, Copper River Watershed Project, Teddy Roosevelt, IV, 4 the decedent of Teddy Roosevelt who first brought the 5 area into public ownership and protection a hundred 6 7 years ago. And I would imagine Governor Walker, he 8 knows this area, he knows this area probably better 9 than the Trustee Council does directly, I mean, he grew up not too far from there. So I would imagine he would 10 not want his Administration to be the one that leaves 11 12 this undone.

Actually to be frank the public really cannot understand the reluctance of this Council to move forward on this at this point. It has been years and you have been entirely -- as far as I know, entirely unresponsive to the overwhelming public support to get this project done. I don't understand it, a lot of the public doesn't understand it.

The link to injury analysis which we've been asking for, we need to -- I think -- I would ask respectfully that you commission that today. Just agree to conduct a link to injury analysis for the Bering River Coal Field connection to EVOS restoration objectives. I know there's been some concern about

well, it's out of the region. Well, it's not. 1 The 2 region line was drawn arbitrarily on the west bank of 3 the Copper River, makes no ecological sense. But regardless of that the Restoration Plan provides for 4 the Trustee Council to conduct restoration projects 5 outside of the defined region when and if appropriate. 6 7 This is probably the most appropriate you'll ever have in front of you. 8 9 One quick question. I understand there's a 10 letter to the Trustee Council from the delegate -- from 11 someone in the delegation asking for this link to 12 injury analysis; is that correct? 13 MR. WACKOWSKI: Yes, sir, we received a letter 14 from Senator Murkowski asking for a link to injury 15 analysis to me. Add that to the record, is that added already in our administrative record? 16 MS. HSIEH: It would be in your administrative 17 18 record. We can add it to the -- we don't really add things to the transcript here, it would be added to the 19 20 official record. 21 MR. WACKOWSKI: Sorry this is my first..... 2.2 MS. HSIEH: That's okay. 23 MR. MULDER: That's okay. MR. WACKOWSKI: .....so I -- I'm used to 24 25 congressional hearings.

Page 12 Yeah. MR. MULDER: 1 2 MR. WACKOWSKI: Is it a problem to add it to 3 the record? MS. HSIEH: It will be added to the official 4 record with that request. 5 6 MR. WACKOWSKI: Okay. 7 MS. HSIEH: I only have a marked up copy here 8 because it was just to the Trustees, so it was not 9 disseminated to the public at this point. 10 MR. WACKOWSKI: Gotcha. Sorry, David, this is 11 Steve speaking. Sorry -- point out too that we did add 12 it onto the agenda item for number 14 to discuss. 13 MR. STEINER: Oh, I didn't see that. Okav. 14 Thank you very much. Okay. And just to..... 15 MR. WACKOWSKI: Do we have a copy for him? MS. HSIEH: Of the agenda. They're over here 16 17 on the meeting packet as well. 18 MR. STEINER: Good. Thank you very much. Ι appreciate that. So I'm glad that will be added to the 19 20 public record. And with the Senator's letter which I 21 have not seen, I just understood that it had been sent, 2.2 and the enormous public support behind the Trustee 23 Council at least doing the link to injury analysis 24 here, I would again respectfully ask that you move on 25 that today. If you don't and that mine happens to be

developed someday in the future, it's going to be on
 your shoulders quite squarely. And I don't think -- I
 don't think any of you want that later on.

At any rate I'd be glad to answer any 4 questions, but that's what I wanted to say. Please, 5 please, go ahead with this link to injury analysis for 6 7 Bering River. And then if it shows that there is a 8 direct link to injury and I think it's again your best opportunity for restoring at least injured and yet to 9 10 be recovered resource services available throughout the 11 entire oil spill region, then I suggest you do the 12 project.

13 Thank you.

MR. MULDER: Thank you for your comments. So I believe that was the only person signed up for public comment. Next we'll move the Public Advisory Committee comments.

18 Kurt.

19 MR. EILO: Good morning, everyone. Sherry told 20 everyone to keep their chins up so they could be heard 21 and she told me to keep both of mine up. I thought 22 that was kind of rude.

23 (Laughter)

24 MR. EILO: So I was reluctant chair of the PAC 25 again this time which is also quite amazing and I just

wanted to highlight one thing from the PAC meetings, 1 2 that you can see we generally followed all Science 3 Committee recommendations. You don't need to, in fact, 4 spend a lot of time reviewing PAC comments, however there was one point where we spent it and frequently 5 got off track focusing about the zeroed out budget for 6 7 outreach and that resulted in two resolutions you'll 8 see in our minutes from our meeting. I think it's the fifth and sixth resolution where we ask that the EVOS 9 10 reconsider the role of Trustee funds to do outreach and 11 to tell the story of Exxon Valdez spill.

12 I've actually sat in here in front of you with 13 that same resolution several years ago. And it just represents some concern. We do realize that there are 14 15 partners to the Council here that do outreach activities. We're not -- I guess the group wasn't 16 certain that those really tell the story of EVOS 17 18 actively and we -- our suggestion was that the Trustee Council perhaps set Staff forward on the task to come 19 20 up with a strategy that really does tell the story and 21 the work of EVOS and the legacy of the spill and 2.2 ultimately prevent complacency. 23

23 So that would be the sum up of a single item 24 that really didn't concur with Science Panel. And I 25 think I did that in under a minute.

Page 15 MS. HSIEH: Could I.... 1 2 MR. MULDER: Excellent. Any Trustees have any 3 questions. 4 MS. HSIEH: .....make a comment to..... 5 MR. MULDER: Okay. Unfortunately I wasn't at the PAC 6 MS. HSIEH: 7 meeting this fall for personal reasons and so poor 8 Lauri and Shiway were sort of thrown into it last minute. But -- and Shiway is also our new Science 9 10 Coordinator so didn't have a history. 11 The outreach budget was not zeroed out this 12 What I had done is I had given them an arc year. 13 showing what the Trustee Council budget had been over the last like nine or 10 years, but in portion. 14 And it 15 -- outreach used to be its own separate budget, but actually what we realized is our website gets I don't 16 know how many hits a year, in the thousands, and our 17 18 website is really a huge vehicle that people come to us and we have students, media, reporters, always 19 20 interfacing with us, asking us questions anywhere from 21 a third grader to, you know, large international and 2.2 national newspapers. So we answer all those 23 individually. And we realized the outreach budget 24 wasn't really -- it's actually what we do every day in 25 our office and so we combined it in our admin. We

can't really separate it out because I do outreach,
 Sherry does it, Lauri does it all the time. We
 couldn't really parse it out.

4 At the 20th anniversary we did make a concerted effort to have an event at the zoo that I felt was 5 fairly important to educate people on oil spills. 6 We 7 had 1,200 people attend, 400 school children. It was a 8 great event. I took a lot of time, but we enjoyed it and we also took up a lot of staff time for the Trust 9 10 Agencies who brought their skill to bear there. We had 11 a touch take, et cetera.

12 Subsequent to that in 2011 the Deep Horizon 13 happened. Our office was hijacked for weeks, months, doing only outreach, responding to I don't -- we didn't 14 15 even count how many -- I mean, basically all day long all we had was reporters and people talking about EVOS 16 and Deep Water Horizon. Deep Water Horizon created a 17 18 secondary tier of awareness of oil spills in this 19 country. And in fact the journalism and products that 20 now talk about oil spills in our country link EVOS, 21 Deep Water Horizon and hopefully there won't be another 2.2 layer on there. So we're noticing that we're sort of 23 sidecar on that discussion.

24 We love to educate people about EVOS and we 25 love to educate people about EVOS and we love to be

Page 17 responsive, we're happy to hear any suggestions. 1 Also 2 what Shiway and -- and I wasn't there, I'm sorry, to 3 help educate her because she literally started just a few weeks before the PAC meeting, was to develop 4 invitation for FY '17 through '21, included outreach 5 for the programs. But also I had asked all the 6 7 Trustees to indicate who in their agencies did their 8 outreach because it's important to have the products 9 and information from our programs go through the 10 agencies and be used so that we don't have to all be in 11 like a potato sack race where everyone has to agree on 12 the product which can be hard with six agencies plus 13 Department of Justice. So Shiway has recently been in touch with your agency outreach folks and has 14 15 discovered that there have been radio shows and products and articles written from your agencies and 16 she'll probably give an overview of that. And we -- I 17 18 will be wanting to encourage and look forward to more 19 of that sort of activity.

And also I'm happy to hear from your agency personnel what they need to help promote the different activities and data for the stakeholders and members of the public who are interested as well.

24So that was just to give a brief update of what25-- sort of the history of what we have been doing. And

Page 18 of course I'm always happen to hear ideas. 1 I think 2 it's important that the public know about the 3 devastation of the spill and in fact in 20 -- for the 20th anniversary the first thing people saw when they 4 came in was a video of the animals actively and the 5 spill. 6 7 Of course Deep Water Horizon has kind of 8 eclipsed that in some ways in the national and international view, but we continue to try and let 9 people know and answer very quickly any inquiries and 10 11 keep our website up-to-date. 12 Thank you. 13 MR. MULDER: Thank you. 14 MR. MULDER: Thank you. 15 MR. WACKOWSKI: This is Steve. Kurt, so a question. Your point with outreach though is not about 16 the devastation of the spill, it's about the work that 17 18 EVOS is doing? I think it's all of those things. 19 MR. EILO: 20 So telling the full story because EVOS has done a lot 21 of things. I -- the best example that came out in the 2.2 meeting was how -- I wouldn't want to pick on 23 millennials, but I seem to do it often enough, but how 24 few of them really understand the scope of what 25 happened during the spill. They assume that

1 everything's done, cleaned up, that there isn't
2 lingering oil. The science behind it -- the amazing
3 science behind it, I think that whole story is what we
4 think it might be missing in some of our younger
5 generations. And that was our -- I think some of the
6 -- one of the comments that really struck home for me
7 is that might be the case.

8 MR. WACKOWSKI: I would tend to agree with you 9 as a millennial on the Council. I was in third grade 10 during the spill and -- here in Anchorage. I actually 11 didn't even know EVOS existed until I went to work for 12 Senator Stevens on Capital Hill and then it was kind of 13 an afterthought. And then when I was nominated into this job I had very little understanding or 14 15 appreciation of the existence or the work we've done. And one example we talked about at our fall meeting is 16 some of our restoration projects. We built -- helped 17 18 fund building a river overwalk in the Kenai River, 19 right. And I don't even think we have a logo on there 20 saying, hey, we helped fund this. MS. HSIEH: Yeah, if we could add signage to 21 2.2 some of our projects. 23 MR. WACKOWSKI: I think that would be important 24 to know that the legacy of at least the Council will 25 live on. And I don't know if it's worth considering us

trying to look not just within the agencies, but maybe at some sort of consultant to help us tell our narrative. Is that the road you were going down, is.....

5 MR. EILO: I think that covers part of it. I 6 -- you know, I have a lot of faith in Elise and I think 7 a lot of what we suggest is being done and perhaps it 8 could be communicated as a -- kind of a long term 9 strategy on how we're going to continue to tell that 10 story. And I think that might appease all of us to 11 know there is a plan forward.

12 MS. HSIEH: Can I -- maybe we can talk a little 13 more and I can come up with some things. I -- we have 14 discussed signage on some of the restoration projects, 15 especially now we're doing a lot of habitat enhancement 16 that really is physical on the ground where people can 17 see it such as the walkways. And that was done in the 18 past era as well. And actually -- so some of the past 19 era projects I probably wouldn't do because they 20 probably need a refresh and we're not doing that 21 currently. But over the last few years all the culvert 22 projects, some of the Kenai Flats projects, we could 23 talk to those project managers and see what would be 24 appropriate in those physical areas.

So it is true the Trustee Council has kept --

25

Page 21 our office tends to work under the agencies that we 1 2 want to support, what the agencies would like to do 3 which is perhaps a little different than the initial era where the Trustee Council itself sort of bannered 4 itself and had more of an advertising feel to it. 5 And I think that it was more effective trying to support 6 7 the agencies. 8 MR. WACKOWSKI: Do we engage -- sorry, this is 9 Steve again. Do we engage the school districts and the 10 State Board of Education on getting this included..... 11 MS. HSTEH: We're.... 12 MR. WACKOWSKI: .....in curriculum or..... 13 MS. HSIEH: .....The Department of Justice had indicated in the past that Trustee Council funds are 14 not to be used for education. However during our 15 anniversary I did have the school district come and do 16 field trips. And so we could -- I could round back 17 18 around to the Department of Justice and it is its 19 curriculum now my children to me, but I could go back 20 to Department of Justice and see how they feel, I could 21 maybe come up with some ideas, maybe some outreach in 2.2 the schools, and see how the Department of Justice 23 would feel about that currently. 24 MR. MULDER: Steve. This is Larry. David, a couple 25 MR. HARTIG:

things. I think the outreach is real important, I 1 2 appreciate the fact you're bringing it up because I 3 think particularly now as legislators and others are looking for sources of funds for different things that, 4 you know, are important to them, that, you know, they 5 know that the EVOS fund is out there and so they go 6 7 look there. And so I think it's important for 8 everybody to understand what EVOS is and what it isn't, 9 try to be clear on that. And that can get lost and we 10 just can't assume people will find that out on their 11 own.

12 On the education thing, I've had experience in 13 other venues on that and my experience has been the school districts are pretty set on what they can teach 14 15 and they have a limited period of time to teach it and you have to do teacher training and the curriculum has 16 to be approved. So it isn't like you just throw 17 something at them, they say, oh, this looks good and 18 19 then they start teaching it. It's a process. And I --20 and so if we got into that I think we'd have to talk to 21 some of those groups that do curriculum and find out 2.2 what's involved and because it has to be neutral.... 23 MS. HSIEH: It.... 24 MR. HARTIG: .....and it has to fit in..... 25 MS. HSIEH: Right.

Page 23 MR. HARTIG: .....with kind of what they have 1 to teach at each level and..... 2 3 MS. HSIEH: It currently is being taught in our 4 schools. MR. HARTIG: Oh, yeah, it's integrated in 5 6 there.... 7 MS. HSIEH: Yeah. MR. HARTIG: .....in some fashion or another, 8 but if we were trying to -- you don't just walk in the 9 10 door with some.... 11 MS. HSIEH: No. 12 MR. HARTIG: .....and say here it is. 13 MS. HSIEH: Then every group would be walking 14 into the school asking..... 15 MR. HARTIG: Yeah. MS. HSIEH: .....for their interest to be..... 16 MR. HARTIG: It's along there. 17 18 MS. HSIEH: .....I mean, maybe -- we did have this whole field trip thing, you know, I really need to 19 20 talk to the Department of Justice because it takes the 21 Trustee Council in a different way if suddenly we're 2.2 putting on events where school children come which was 23 very successful and we did do it for that anniversary. 24 But we were cautioned about what these funds are for 25 which is natural resource damage. So we just have to

1 straddle those uses.

2	MR. HARTIG: Yeah, I think the interpretive
3	stuff like on the things that we do purchase and that
4	sort of thing, like I know the Mill's parcel is coming
5	up down in Valdez and, you know, interpretative stuff
6	around that I think is kind of education that we can
7	do.
8	MS. HSIEH: That would be great. And actually
9	there's probably staff in some of your agencies that
10	could help us with that, or we could fund the signage
11	and interpretive materials for those projects. That
12	would be a great partnership.
13	MR. MULDER: Terri, did you have a comment.
14	MS. MARCERON: Yeah, I appreciate it too. I
15	read the notes carefully in terms of some of the ideas
16	that you did provide like attendance at Alaska Forum on
17	the Environment and the Federation of Native
18	activities. And I certainly see that some of that
19	outreach of just sort of showcasing what a summary of
20	current results are probably would be really helpful.
21	And then again I know it was also brought up the 30th
22	anniversary's coming up and there may be that
23	opportunity.
24	So I guess my take, Elise, is that I would
25	

Page 25 past history of some products tied in with what the PAC 1 is already kind of recommending and, you know, come 2 3 back to us with that. Including -- I like the 4 opportunity. We do have some interpretive..... MS. HSIEH: That would be great. 5 6 MS. MARCERON: .....experts and there's 7 some.... 8 MS. HSIEH: Yeah. 9 MS. MARCERON: .....fantastic different types of folks that work on those kinds of signs that maybe 10 again you could just maybe provide us the options or 11 the array of a few choices recognizing you have to be 12 13 really careful.... 14 MS. HSIEH: Right. MS. MARCERON: .....some of the side boards 15 16 that we have. But I appreciate the fact that the 17 outreach -- a lot of the information is very, very technical which is what I read. And so making it sort 18 19 of to that other audience, to simplify and showcase 20 that even after years, like the forest -- we just got done working on our plan, forest plan, and know that we 21 still have 3.7 miles of shoreline that still have oil 22 23 and again people may not realize that we still have 24 lingering oil on national forest systems. So there may 25 be some ways to keep it pretty simple, but also very

1 informal.

2	MS. HSIEH: And also in the past for the 20th
3	anniversary we worked with the National Park Service so
4	we would have we don't have those skills in our
5	office so we would need to lean on agency staff. And
6	NOAA has done an amazing job actually, using EVOS
7	information on their website and telling the story as
8	well.
9	MR. MULDER: Jim.
10	MR. BALSIGER: So I agree with all that's been
11	said, but if we're particularly as we approach 30
12	years and if you work and devise a strategy you might
13	want to look at specific money and budget next year to
14	accomplish some of this kind of stuff. I agree it
15	would what you said, Elise, that the website has
16	most of this stuff and it can be discovered in the
17	published papers if you want to do that, but it's not
18	quite the same as having a dedicated amount of money.
19	And I understand that the I don't want I'm not
20	trying to make another item that you have to keep track
21	of the money spent against it, but as we come to the
22	30th you might want to consider
23	MS. HSIEH: So actually what would be great is
24	if you guys could put me in contact with your outreach
25	well, I guess it's the same people for the programs

Page 27 because that's what we did in the past is we funneled 1 2 the money to the agencies and helped -- and had their 3 staff who have experience and have the talents in these areas to partner with us to come up with different 4 products. And then, you know, we worked with them to 5 do that. 6 7 MR. BALSIGER: Well.... MS. HSIEH: Is that not..... 8 9 MR. BALSIGER: ..... think that's fine, but of course our public people are -- public outreach people, 10 11 we have them employed full-time. 12 MS. HSIEH: Right. 13 MR. BALSIGER: And so when -- unless there's extra people we can bring in or extra money, it's hard 14 15 to pile on more than we're doing which I 16 appreciate.... Well, the funding would go.... 17 MS. HSIEH: 18 MS. ADAMS: Back to NOAA. 19 MS. HSIEH: ....to NOAA. Yeah, there would be 20 funds attached in the..... 21 MR. BALSIGER: Right. So I think we need to 2.2 identify them is my point. 23 MS. HSIEH: Right. 24 Right. MS. ADAMS: Okay. 25 MR. WACKOWSKI: Is there any -- is there not --

1 this is Steve, David, sorry.

2 MR. ROGERS: I couldn't tell. Thank you. 3 MR. WACKOWSKI: Okay. What's the reluctance to look at a pot of money to bring someone on part-time 4 into EVOS itself instead of borrowing someone from the 5 -- or borrowing our manpower from the agencies. 6 I know a lot for DOI. The federal agencies want a hiring 7 freeze and so that hits a lot of the public affairs 8 staff who are shorthanded. So is there reluctance to 9 bring someone like a consultant or something like that 10 11 onto your staff to help or I -- I'm trying to 12 understand that? 13 MS. HSIEH: Well, we can always expand the administrative budget and hire more people, I mean, 14 15 that's what I (indiscernible - simultaneous 16 speech).... MR. WACKOWSKI: Well, I'm not saying it has to 17 18 be, you know, a state, but can you bring on like a 19 consultant or a contractor for a finite period of time 20 for the.... 21 MS. HSIEH: To be honest with you a consultant 2.2 -- it would be better for me to even just have some 23 phone conversations with some agency outreach people 24 because a consultant what I'll have to do is to say --25 I'll have to -- it's like doing your taxes, I'll have

to bring them all the projects to say here's the 1 2 projects that are recent, here's where signage is 3 appropriate and they'll say, great, let's do some I mean, so it would actually create more work 4 signage. for me to educate a consultant. I think that if our 5 group sits and looks at our projects and starts to try 6 7 and build that into upcoming projects and also look at our recent habitat enhancement projects, we can go back 8 9 to Rys Miranda who's here, Great Land Trust, I think 10 all of our partners who make these projects happen, can 11 have some great ideas whereas if I bring in a 12 consultant I'm going to have to explain -- I'll spend a 13 lot of time explaining for them I think. And probably the thing is that if 14 MS. ADAMS: 15 we undertake that kind of effort then there would be a budget attached to doing any of the ideas. 16 MS. HSIEH: That's correct. 17 18 MS. ADAMS: So there would have to be a 19 comeback with a budget..... 20 MR. WACKOWSKI: Isn't that what.... 21 MS. ADAMS: .....to do the signage. 2.2 Yes, that's right. MS. HSIEH: 23 MR. WACKOWSKI: .....Mr. Balsiger just proposed 24 though? 25 MS. HSIEH: Yes, that's right. That's what

we'd do. 1 2 MS. ADAMS: Right. Right. MS. HSIEH: 3 But in the meantime before we meet again and before there's funds attached, we're happy to 4 look at that. I think you'll be, you know, taking 5 6 steps. 7 MR. MULDER: Kurt. MR. EILO: Am I allowed to -- I don't know how 8 to -- how do I make a point of order here. Just wanted 9 10 to make two thoughts following that. One point of 11 clarification is that for those that don't know, I 12 actually organized Alaska Forum on the Environment and 13 these comments weren't specifically requesting that --EVOS involvement in the forum and it wasn't meant self-14 15 serving in that way. So I want to make that clear. However we would support any proposal that you wanted 16 to, it doesn't involve cost for us, only for you to 17 18 prepare it. 19 And the second is that maybe the outreach team 20 could seek volunteers from organizations that would be 21 willing to participate in the public sector. And that 2.2 was just a idea. 23 MR. MULDER: All right. Thank you very much 24 for your time. 25 MR. EILO: Thank you.

1	MR. WACKOWSKI: According to this, Mr. Phil
2	Johnson and the 2016/18 PAC Conservation/Environmental
3	seat vacancy. The status of our solicitation.
4	MR. JOHNSON: Okay. Good morning.
5	MR. MULDER: Morning.
6	MR. JOHNSON: So as I think some of you know
7	there's a vacancy on the PAC, it's for the
8	Conservation/Environmental interest. And so that's for
9	the remainder of the term which runs through December
10	2nd, 2018.
11	So the Secretary of the Interior actually is
12	the person that selects the new PAC members and is the
13	selecting official. And so we have prepared a draft
14	Federal Register notice and it's under internal review
15	within DOI. So we will you know, once that internal
16	review's done we'll send it over to the Office of the
17	Federal Register, it takes two or three weeks to
18	publish it and so it's in process.
19	I think one other thing I'd like to mention is
20	that we're asking for or we're planning on putting it
21	out for 45 days. If under fact a committee rules it's
22	30 days is the minimum, but we thought it can't hurt to
23	give a little extra time just to have people be able to
24	view become aware of the notice, pull their
25	materials together, that sort of thing.

Page 32 And let's see, I think the -- so then how that 1 2 process would work is and how the draft Federal 3 Register is written is that the materials would come into the EVOS office and then they would provide those 4 -- you know, package them up and provide those 5 materials to DOI. And so that's the process as I 6 understand it. 7 And the next PAC meeting will be in September, 8 9 2018, so there's plenty of time to work on this. It's 10 not like we're in a rush. So there's plenty of time 11 to, you know, go out to the public and hopefully get 12 some good candidates. 13 MR. MULDER: All right. Any questions. 14 MR. JOHNSON: So any questions, if..... 15 (No comments) 16 MR. MULDER: Thank you very much. 17 MR. JOHNSON: Okay. Thanks. 18 MR. MULDER: That brings us to the Annual Asset Allocation, item number 6, Investment. 19 20 Elise. 21 MS. HSIEH: The EVOS Investment Working Group 2.2 met in the spring as they do every year, to review a 23 presentation by Callan Associates and determine an 24 asset allocation recommendation for FY '18. The 25 Investment Working Group currently consists of Paul

Eriendson of Callan Associates, Bob Mitchell of 1 2 Department of Revenue, both of whom are on the phone I 3 believe to answer any questions. Steve Mulder and Jen Shore, Department of Law, Joe Darnell or Liz Gobeski of 4 Department of Interior, Solicitor's Office, myself and 5 Laurie Adams and Larry Hartig of Department of 6 7 Environmental Conservation. The Investment Working 8 Group is typically assembled in the early spring and 9 Trustees are contacted should they wish to join or participate, kind of a open group. 10

11 Over the years EVOS investment funds have been 12 invested fairly aggressively, yielding substantial 13 earnings for the Council and also having weathered a severe downturn in 2008/2009. As the investment funds 14 15 slowly wind down to an anticipated end in 10 to 15 years, the asset allocation is tailored to reflect 16 anticipated time horizons and spending patterns. 17 Thus 18 the asset allocation recommended by the group for FY '18 reflects a slightly more conservative posture than 19 20 that in the past few years while still pursuing a 21 growth and risk oriented net. 2.2 The asset allocation recommended by the

22 The asset allocation recommended by the 23 Investment Working Group is Mix 3 in the asset 24 allocation review that's in your packets dated April of 25 2017 shown on page 9 with domestic equity it's 35

Page 34 percent plus or minus 7 percent, international equities 1 2 22 percent plus or minus 7. Domestic bonds 43 percent 3 plus or minus 5 percent and a cash equivalent of -plus 10 percent minus 0 percent. 4 There is -- Paul and Bob are on the phone to 5 answer any specific questions, but this year things are 6 7 fairly stable and just kind of ratcheting back slightly to a more conservative mix. 8 9 MR. MULDER: Any questions. 10 (No comments) 11 MR. MULDER: So this agenda item needs a 12 motion. Any volunteers. 13 MR. HARTIG: This is Larry. I move we approve the following asset allocation for FY '18. Domestic 14 15 equities, 35 percent, plus or minus 7 percent; international equities, 22 percent, plus or minus 7 16 percent; domestic bonds, 43 percent, plus or minus 5 17 percent cash equivalents, 0 percent plus or minus 10 18 percent -- minus 0 percent. 19 20 MR. MULDER: Is there a second? 21 MR. ROGERS: Second. David here. 2.2 MR. MULDER: Are you in favor, David? 23 MR. ROGERS: Yes. 24 MR. MULDER: Anyone opposed? 25 (No opposing votes)

Page 35 MR. MULDER: All right. So that motion.... 1 2 MR. BALSIGER: Mr. Chairman. 3 MR. MULDER: Yes. Just a (indiscernible), who 4 serves on that group from the Trustees..... MS. HSIEH: It was the.... 5 MR. BALSIGER: 6 . . . . . 7 MS. HSIEH: I just mentioned them and it's Paul 8 Eriendson of Callan Associates, Bob Mitchell, Department of Revenue, Steve Mulder or Jen Shore, 9 10 Department of Law, Joe Darnell or Liz Gobeski of 11 Department of Interior, Solicitor's Office, myself and 12 Laurie and Larry Hartig. But it's an open group, we 13 solicit you guys every spring and happy to have you. 14 MR. WACKOWSKI: Are investors on the phone? 15 MS. HSIEH: Excuse me, are investment advisors.... 16 MR. WACKOWSKI: 17 Yeah. 18 MS. HSIEH: .....Department of Revenue and Paul Eriendson, yes. 19 20 MR. WACKOWSKI: I'm just curious, how much is 21 the fund maintenance fees and the commissions 2.2 associated, like yearly average? 23 MS. HSIEH: We have recently reduced our third 24 party account associate's fee. Actually I can't 25 remember the exact number it was. I believe it was

Page 36 proposed for 17 to \$25,000 this year, but we've reached 1 2 a -- we talked to Callan and they are on tap for the 3 Trustee Council, for us to prompt a review by them if we -- at a time where we feel something unusual's going 4 on or if we'd like another set of eyes, we have a very 5 good working relationship and appreciate our long 6 7 standing relationship with Callan. So I actually did 8 reduce that in the budget this year, that cost. And Department of Revenue has a custodial cost 9

9 And Department of Revenue has a custodial cost 10 and, Bob, do you know what the percentage is, I know 11 we're getting a good deal, but....

12 MR. MITCHELL: This is Bob. Unfortunately I 13 can't quote you the percentage, but I can talk -- I can speak to the process. The fees that are assessed are 14 15 kind of the cost of our operation that is allocated to the two portfolios that we manage on your behalf. 16 So it would be a pro rata allocation. So think of it as 17 18 cost for us. If you'd like more specific information I'd be happy to research that, but unfortunately I 19 20 don't have that in front of me. MS. HSIEH: Linda, our admin manager is here. 21 2.2 Can you remember the annual cost? 23 MS. KILBOURNE: It's about 700,000. 24 MS. HSIEH: Okay. Per year?

25 MS. KILBOURNE: Yeah.
Page 37 MS. HSIEH: The 200 -- it ranges around 196 to 1 2 \$212 million.... 3 MS. KILBOURNE: Correct. 4 MS. HSIEH: ....per year? Okay. Does that 5 help you? Are you sure it's 700? MS. KILBOURNE: Well, when we first get it it's 6 about a million, but then they adjust per their work 7 8 and we usually get adjusted at the end and it's about 9 700 I think. 10 MR. WACKOWSKI: That was my question. 11 MS. HSIEH: There we go. MR. MULDER: Okay. Any other questions. 12 13 (No comments) 14 MR. MULDER: We'll move on to agenda item 15 number 7, the Long Term Programs. Or did..... 16 MS. HSIEH: You know, I just -- the -- I would 17 say that the services the Department of Revenue 18 provides is sort of wide ranging to us. We often use 19 them for a lot of different advising. And we have --20 we've done well by following their advice and having them also be the custodian of the fund. Bob Mitchell 21 22 in particular has worked with us through that massive 23 downturn which we recovered from very well and we 24 appreciate the Department of Revenue and their work 25 with our funds.

Page 38 MR. WACKOWSKI: Right. And so -- but there was 1 2 a history..... 3 MS. HSIEH: Yes. 4 MR. WACKOWSKI: .....to the settlement fund, it 5 wasn't always..... That's correct. 6 MS. HSIEH: 7 MR. WACKOWSKI: .....invested by the Department 8 of Revenue. 9 It used to be in a court registry MS. HSIEH: where it made almost nothing. And federal legislation 10 11 helped move it into the stock market which is why we --12 you all sit here today because of the aggressive 13 investment, the inherent performance of the stock market during this really extreme 10 year period and 14 15 the Trustees and Department of Revenue and our third party advisors, Callan, for staying the course. 16 And recovering well from the different recessions during 17 18 which time we have cut back our budget and we would do again if we had a market drop, you'd see our office do 19 20 as we did before, we really cut back and tighten our seat belts and ride it out. So we have had that 21 2.2 experience twice. 23 Welcome, Shiway. You're going to MR. MULDER: 24 lead us through the discussion for our long term 25 programs.

MS. WANG: Ηi. 1 2 MS. HSIEH: Our new Science Coordinator, Shiway 3 Wanq. 4 MS. WANG: I'm happy to be here. Like Elise said I just started in August so here we go. I'm going 5 to start off with the Gulf Watch Alaska Program. 6 7 The Gulf Watch Alaska Program is progressing 8 well. The Science Panel is pleased with the quality of 9 the proposals and recommends funding the entire 10 program. Program lead, Mandy Lindeberg, and her 11 management team continue to strengthen coordination of 12 logistic and synthesizing the results. And the program 13 has had a productive year, 19 papers have been accepted in a peer review journal, 45 data sets have been made 14 15 public and there were 13 DOI and NOAA agency public outreach products, including web articles, educational 16 videos, TV stories and K through 12 presentations. 17 18 The PIs are achieving program and project goals on a timely manner. Plans for FY '18 have not shifted 19 20 from their original submission in FY '17. 21 And now I'll hand it over to Mandy to go over 2.2 some of the program highlights for FY '17. 23 MS. LINDEBERG: So I'm Mandy Lindeberg with 24 NOAA Fisheries, Alaska Fisheries Science Center located 25 with the Auke Bay Laboratory in Juneau. I have --

let's see I started my first research project with the
 Trustees in 1990. Okay. We're not doing the math,
 that's enough. It was a long time. So we've done lots
 of oil spill research and I'm honored to lead this
 program and the management team and the group of
 wonderful scientists involved in this project.

7 I have a little bit of a cold, so hopefully my8 voice holds out. If you can't hear or -- let me know.

9 Just for those of you that are new, the program has five main objectives. We want to sustain and build 10 11 upon existing time series data sets that are in the 12 EVOS affected region. Some of these data sets are long 13 term, decadal, some I think up to 40 years too, pre-So these are really significant long term time 14 spill. 15 series data. We want to monitor key ecosystem components and changes that happen with those, how 16 they'll impact the injured resources. Also make this 17 18 data available including any historic data we can get 19 our hands on, make it available to the public in many 20 different forms. And also develop science synthesis products for decision makers and be able to communicate 21 2.2 our findings to regional partners, tribal villages and 23 management agencies.

Our program organization, pretty simple. Wehave a Program Management Team, we also have a Outreach

Steering Committee and a Science Review Panel and then
 we have a Science Coordinating Committee that oversees
 our ecosystem components, the environmental drivers and
 the pelagic and nearshore ecosystem.

So I'm focusing in here on the ecosystem 5 components. This is really the core of the program, 6 7 this is where it all happens. We have the environmental drivers folks, a series of projects that 8 9 are oceanographic and also looking at primary productivity in these oil infected areas. And also the 10 11 pelagic ecosystem group is looking at predator/prey 12 relationships and their populations. And also the 13 nearshore ecosystem that's looking at keytropic species in the nearshore and their health. 14 And as you can 15 see there's a lot of agency and nonprofit organizations involved here with lots of in kind services going to 16 these projects. Scientists with a wealth of 17 18 information about the nearshore and the Northern Gulf 19 ecosystem, really an incredible group of people.

And here's a -- sort of a monitoring footprint of the program. The outer white line is the spill affected area and you can see our various monitoring efforts in that. Inside there we have different ecological regions like Prince William Sound, the Kenai coast, Kachemak Bay, and even out on the Katmai coast.

1 And I'm not going to go into all the details of that, 2 it's a messy map, but that's a good thing. That means 3 we're covering these areas, we're looking at how these 4 different ecosystems are responding to potential 5 changes that we're seeing in the Gulf. So the messier 6 the better, I say.

7 I'm just going to highlight some of our recent findings. It's been focused on the marine heat wave 8 that we experienced in 2014 and '16. Scientists like 9 10 to affectionately call this the warm blob and we've 11 been documenting this event. The Environmental Drivers 12 Group has seen enormously high temperatures at the 13 surface and also at depth throughout our monitoring regions. I've seen in primary productivity a decline 14 15 in cold water species of zooplankton and a long -- and they're a nutritional -- nutritionally zooplankton 16 associated with cold water and instead we're seeing a 17 18 warm water species persist, they're not as 19 nutritionally rich. These are the bugs, these are the 20 things that feed larger organisms so it's very 21 important to understand what's going on with this 2.2 primary productivity.

The pelagic ecosystem, they've seen declining populations in seabirds and forage fish during this time. They've seen changes in the behavior and the

distribution and the diets of a lot of the predators.
 And unfortunately we've seen some die offs of marine
 birds and some unusual mortality events with marine
 mammals.

5 In the nearshore ecosystem we've seen some variable patterns among the keytropic species. 6 Some are driven in local areas, but others are Gulf wide. 7 8 An example is an outbreak of disease, sea star wasting 9 disease, you may have seen that in the news. I'm 10 always impressed that a invertebrate got so much air 11 time. People love sea stars and they're a voracious 12 predator in the nearshore. So it's an important thing 13 to be looking at that is definitely associated with 14 this heat wave.

So that's kind of a quick -- really quick overview of some of our findings. Now I'm going to go through and give you about 35 slides of data summaries. No, I'm kidding. I won't do that to you. Just seeing if you're paying attention. We could do it though if we really want.

Instead I'm going to shift gears and talk about some of the program successes from a management point of view. We've been in motion now for over five years, we're well into the sixth year. And we've got a head of steam going on, we got critical mass that we're

really starting to see. We're seeing new 1 2 collaborations of users, increases in resource sharing, 3 leveraging of funds, scientific relationships and different ways of accessing data. So why are we seeing 4 these increase right now. I think it's because we've 5 demonstrated that the program has staying power. 6 It's 7 not just a two year, one off project. We're here with 8 a long term program and we've been really productive. 9 So people are now wanting to collaborate with us, 10 they're wanting to partner up.

11 So I'm just going to give you a few examples of 12 some of the collaborations and some of the users of the 13 Gulf Watch Information. This is a quote from Mandy Migura and Dr. Kate Savage from the Alaska Regional 14 15 Stranding Network. About a year ago we contacted them and said, hey, you know, we've got a whole fleet of 16 researchers out there during different times of the 17 18 If you ever need help with a stranding event let year. us know, here's our contact information and when we'll 19 20 be out, our schedules. And it turned out to be 21 fortuitous because that following summer we had two 2.2 whales that stranded in Prince William Sound and our 23 scientists were able to locate the carcasses, get some 24 critical samples for those folks. That helped them 25 understand what's going on with these whales. So that

has been a really good working relationship with those
 folks.

3 Also the National Park Service, Dr. Benjamin Pister is a director of the Ocean Alaska Science and 4 Learning Center, gave us a great example of how he uses 5 Gulf Watch data. They use it to inform their staff on 6 7 what's going on with the marine resources in their 8 parks areas. Also visitors and interpretative centers, they create documents like this resource brief on --9 10 this one's on sea otters and how the Gulf Watch 11 monitoring is monitoring that population. 12 MS. HSIEH: Are logos on it? Thank you. 13 MS. LINDEBERG: Huh? 14 MS. HSIEH: Are logos on them? 15 MS. LINDEBERG: Yes, they're right there and they have several of these. So it's been really great 16 to get -- that's a huge audience those guys get to with 17 18 all the tourists. So that's a great way to go about

19 that.

Also Dr. Stephani Zador with the Alaska Fisheries Science Center has been using our Gulf Watch data to include in her ecosystems considerations report to the North Pacific Fisheries Management Council on an annual basis. We have indices with our data that she uses to look at the overall health of the Northern

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Pacific. So she relies a lot on several of our data
 sets for this report.

3 Also a use, Alaska Ocean Observer System, and 4 Kachemak Bay National Estuarine Research Preserve is collaborating with Gulf Watch oceanographers in 5 Kachemak Bay to look at issues of concern right now 6 7 there for ocean acidification and harmful alga blooms 8 and developing risk assessment tools for PSP. And they 9 provide this information on the IOS platform so the public can go here and user groups like Shellfish 10 Growers Association and also subsistence harvests of 11 12 shellfish and clam and learn about the science behind 13 these issues and how to deal with it safely.

Also a little nerdy part, but new sighting. 14 We 15 collaborated with the U.S. Fish and Wildlife Service and Dr. Kathy Kuletz is a seabird coordinator there. 16 And she needed an observer out on a NOAA vessel this 17 18 summer on a charter through some of our oil spill 19 So we put an observer on there and we had an areas. 20 unusual observation that resulted in a sighting of --21 the first sighting of a Nazca Booby, Sula granti, a 2.2 very cool scientific name. And this is unusual, it was 23 in the Bering Islands and it's usually only seen in the 24 Southeastern Pacific Ocean. It's way out of its range, 25 but this is a great example of, you know, just getting

Page 47 eyes out there, trained eyes out there, we were able to 1 2 capture these events and see changes happening. 3 Also important to the program is leveraging of 4 funds. This last year we had a huge success with this, some of our Gulf Watch PIs at University of Alaska 5 Fairbanks Oceanographer were awarded the National 6 7 Science Foundation Long Term Ecological Research Site. This is bringing a million dollars per year plus ship 8 time into the Gulf area for oceanographers. 9 It will 10 result in expanded sampling or that monitoring 11 footprint that we have on the shelf and in Prince 12 William Sound. And it'll add another crew in the 13 summer. Also it will increase the amount of routine oceanographic measurements that are being taken and 14 15 we'll also be able to have experimental studies, additional ones, to help us understand why certain --16 we see productivity is so variable in some areas. 17 And 18 so our Gulf Watch PIs are very excited about this, it's going to fill a lot of data gaps. But really I think 19 20 the one reason they got the funding was because Gulf 21 Watch programs existed. It's a long term monitoring 2.2 program, it's already up and running and the Science 23 Foundation was like we can add to this and help get 24 more information to this monitoring program. So that 25 has been a huge success.

Page 48 Also working relationships and new ones for the 1 2 program is really important. We've had a great working 3 relationship with Herring and Research Monitoring Program led by Scott Pegau and his PI. We regularly 4 work together in that program. But we've also been 5 reaching out to people like Stephanie Zador for the 6 7 Ecosystems Consideration reports and making regular contributions to t that. In addition to that we've 8 also reached out to the International North Pacific 9 10 Marine Science organization known as PICES and 11 contributing to their five year report that's coming 12 out soon. We've also integrated with NPRB, GoWire 13 Ecosystem Program and our PIs are working with theirs on syntheses and also sharing resources to organize 14 15 some special sessions in a workshop in an upcoming Ocean Sciences 2018 conference. So there's going to be 16 some serious science conversations going on there. 17 So 18 that -- I'm looking forward to that.

19 Our outreach is going strong. Recently we for 20 this five year increment have established an Outreach 21 Coordinator, we've identified members for our Outreach 22 Steering Committee, we've also started a new quarterly 23 newsletter that goes to the Trustee staff and the 24 Science Review Panels and the PAC.

25 MS. HSIEH: It'll be going to the PAC now too.

1 MS. LINDEBERG: Yeah.

2 MS. HSIEH: Yeah.

MS. LINDEBERG: And we've already done two issues, another one is coming out soon. Those are really helpful to track what's going on with the program.

7 And we're also using the sponsoring agency 8 public relations folks to increase the program's 9 visibility, use their resources and get our findings 10 and products out there. We've worked on -- gotten 11 professional videos out on the Mirror Die Off Story, 12 we've done press releases with some of the agency folks 13 that helped a lot and also with local interviews with news stations. So we're going strong in that 14 15 department. You can always do more outreach though, right. So we're still working it, improving it, 16 expanding it, getting the message out. 17

18 And as Shiway mentioned we've been wrapping up 19 the first five years of the program with some big 20 products. This is a special issue that's forthcoming. 21 We have the 19 peer reviewed papers that includes 2.2 papers from Gulf Watch Program and the Herring Research 23 and Monitoring Programs. Those papers are actually 24 available now online. But we're putting the volume 25 together in a special issue and we've got a forward in

Page 50 there from Dr. Pete Peterson and Jeep Rice, our Senior 1 2 Scientist. Pete's on the Science Review Panel. Thev 3 know all about the history of the spill and so 4 knowledgeable. So they wrote a wonderful forward for this issue. We also have an introductory paper to set 5 the stage for the 19 papers. So we're really excited. 6 7 That volume should be together and available in January so pretty soon. And we also published the 45 data sets 8 from the program for the first five years. And those 9 10 are now available on the DataONE node which is a national node so all the other nodes of data 11 12 repositories all have access to our data now. So we 13 are getting really long arms and fingers out all over 14 the place. 15 MS. HSIEH: Does DataONE go international as well? 16 MS. LINDEBERG: It does. 17 18 MS. HSIEH: Yeah. 19 MS. LINDEBERG: Yeah. 20 MS. HSIEH: DataONE is a huge replication 21 source. 2.2 MS. LINDEBERG: It's really -- it's a big coo 23 for us I think, it's really..... 24 MS. HSIEH: Yeah. 25 MS. LINDEBERG: .....putting us on the map.

Page 51 So.... 1 2 MS. HSIEH: It's the gold standard I think. 3 MS. LINDEBERG: .....for us that are going to retire at some point, it'll always be there. 4 5 And so also we've got a new research work space 6 thanks to ASUS and Axion providing the PIs with these 7 new powerful tools to deal with the data management 8 behind the scenes and get them ready for the public. 9 So, you know, we'll be going great guns on all of this, we're pretty excited. 10 Oh, I'm done. So there's some of the motley 11 12 crew, there's some swimmers from the herring folks in 13 there that snuck in. But it's a great group, really passionate about keeping this program going. And I'm 14 15 going to meet with them tomorrow in Cordova, we have 16 our big annual workshop then. 17 MR. WACKOWSKI: Who are these, these are all the PIs on the.... 18 19 MS. LINDEBERG: Yeah. 20 MR. WACKOWSKI: .....various projects? 21 MS. LINDEBERG: Yeah. That was from one of our 22 annual meetings a couple years ago. Going to put on 23 the agenda for a group photo this year, update it. 24 MR. MULDER: Thank you, Mandy. 25 Yeah, thank you. MS. LINDEBERG:

Page 52 Mandy, I was -- I brought this 1 MR. WACKOWSKI: 2 up in our fall meeting, but I was glad to see the slide on the research being used to inform the Pacific --3 North Pacific Council. I stressed the importance of, 4 you know, our science not just being for the sake of 5 science, but it being actual so policymakers can make 6 7 informed decisions. So kudos to you, thanks for 8 putting up the slides and appreciate the work you guys 9 have done. 10 Yes, thank you. MS. LINDEBERG: 11 MR. MULDER: Jim. 12 MR. BALSIGER: So, Mr. Chairman, Steve brings 13 up a good point, you know, people wonder how this gets used and so Mandy points out this annually gets cranked 14 15 into the ecosystem chapter of the status of stocks. But the North Pacific Council, I'll make up a number, 16 it probably has 30 significant actions a year as it 17 18 considers regulations. There's an analytical package that goes with each of those and it's rare if that 19 20 analytical package in the Gulf doesn't refer to work of 21 the Gulf Watch or the goal for those things. So the 2.2 use of this is way broader than just that one chapter 23 you recognized. So Steve has a good point. I'm not 24 quite sure how to make whoever needs to know aware that 25 this is useful in many, many places.

MR. MULDER: 1 Larry. 2 MR. HARTIG: Yeah, I really appreciate 3 everybody's effort on this and it exceeded my expectation. I was a strong supporter for this when we 4 put it together for EVOS funding. But I was curious, I 5 don't know if you're right the person, maybe Jim could 6 7 help, but is this kind of unique or are there -- I 8 mean, you look across Alaska and you look at other 9 areas of Alaska, you know, this data set is it unique or is it -- are there other parts of the state where 10 11 you have similar data sets, similar research efforts in 12 progress? 13 MS. LINDEBERG: No, in my opinion it is unique. It's a huge state, we all know that. We've got the 14 15 Arctic, we've got all these huge regional areas that are all very different. But what we have here I think 16 really are these decadal data sets, they're becoming 17 18 gold mines for researchers. 19 MR. HARTIG: That goes with my next point 20 is.... 21 MS. LINDEBERG: You just don't have that kind of data in the state. 22 23 MR. HARTIG: Yeah, we're -- at our Department 24 we work with others on data sets for environmental 25 quality, you know, pollutants in Southeast Alaska is a

Page 54 big focus right now because of transboundary mine 1 2 concerns and with part being, you know, U.S. Forest 3 Service and others to try -- and the Canadians, we have an agreement with them to share data. But I'm looking 4 at that as sort of a model for collaborations in other 5 parts of the state and I'm wondering if that's what's 6 7 happening here, you know, other parts of the state are 8 looking at it, what they're doing in Prince William 9 Sound and all these groups collaborating. But I just wonder if there's a way of -- you know, maybe not to 10 11 this level, but replicate it in other parts of the 12 state, this kind of cooperation and sharing of data. 13 MS. LINDEBERG: I'm not aware of that. There's 14 not a lot in the state. 15 MR. HARTIG: It's hard getting these kind of 16 data sets.... It's really hard. 17 MS. LINDEBERG: 18 MR. HARTIG: .....and maintaining programs..... 19 MS. LINDEBERG: Yeah. 20 MR. HARTIG: .....without some kind of special 21 attention. 2.2 Yeah, I agree. MS. LINDEBERG: 23 MS. HSIEH: I think the Trustees have been able 24 to facilitate that by having one funding entity with 25 the two programs and requiring integration, requiring

1 -- the programs have been so responsive and the Trustee
2 have pushed so hard for the data it's really been a -3 you know, a worthwhile labor that first five years, but
4 now you can see it paying off and it's -- I think you
5 guys are uniquely positioned to facilitate that kind of
6 collaboration.

7 All right. MS. WANG: Great. Thanks, Mandy. 8 We are going to move on to the Herring Research 9 Monitoring Program. The HRM program is also continuing to make progress and also had a productive year. 10 Α 11 manuscript from the first five year program are also 12 making their way through the review process and again 13 the special issue is you see research too is dividing 14 end of the year.

15 So there were three ADF&G public outreach products which included a radio story, website link and 16 web article. Program goals are being achieved in a 17 18 timely manner and all projects except for one are 19 recommended for funding. The one exception is proposal 20 number 18170111-D Gorman, which has been recommended a 21 fund contingent upon the principal investigator's 2.2 submission of a revised proposal that addresses the 23 Science Panel's questions and comments mainly related 24 to technical issues using scales to assess the age and 25 maturity of herring.

1 The PI has been very responsive and I just 2 received her revised proposal last night. So I look 3 forward to reviewing it and sending it to the Science 4 Panel.

Overall plans for FY '18 have not changed from 5 their original submission in FY '17 except for two 6 7 The first is the Herring Disease Program II, projects. 18120111-E, Hershberger. So briefly last year the 8 project developed a reliable test to detect antibodies 9 10 associated with the viral hemorrhagic septicemia virus, 11 more conveniently known as VHS, which may be 12 contributing to the lack of recovery of herring 13 populations in Prince William Sound.

14 So the Herring Program would like to expand the 15 Prince William Sound field sampling effort to more fully understand what age classes are being affected by 16 this virus. And this would allow managers to 17 18 incorporate this more detailed information about 19 disease and age of exposure into the age structure 20 assessment model and improve model performance. But this requires an increase in sampling effort. So in 21 2.2 order to do this the program has requested an 23 additional annual funding of 24.5K starting in FY '18. 24 And this is supported by the Science Panel, myself, the 25 PAC and the Agency Director.

1 And Scott can give you more details about their 2 findings in his presentation.

3 The other requested change in FY '18 is in regards to an additional post-doc position. 4 In the FY 5 '17 through '21 invitation approximately 278,000 for FY '18 through '20 was designated for funding one three 6 7 year post-doc position which was included in the 8 Herring Program FY '17 through '21 budget. Two highly 9 qualified candidates applied for the post-doc position. 10 One proposal will be funded under the currently 11 authorized funding and addresses the role of disease 12 affecting both herring recruitment and standing biomass 13 which will be important in light of the catastrophic decreases in spawning biomass over the last three 14 15 years.

A second proposal will be funded -- oops, 16 The second proposal examines statistical 17 sorry. 18 relationships between herring recruitment and bottom up and top down (indiscernible) factors which will provide 19 20 the critical synthesis of data between the herring and 21 Gulf Watch Alaska Programs over the last five years. 2.2 The Program Post-Doc Selection Committee, Science Panel 23 and myself, consider both proposals of high quality to 24 merit funding. Each proposal will provide different, 25 but necessary information that will benefit the EVOS TC

Program. And as noted there is funding for one of the
 three year post-doc already included in the Herring
 Program and currently there is no funding dedicated for
 a second three year post-doc.

So in the FY '17 through '21 invitation there 5 was 150K for a cross program publication group which 6 7 some of you may recall from last year and it has not 8 attracted any successful proposals. So we suggest 9 using these cross program publication group funds this 10 year towards the first year of the second post-doc and 11 funding for the second post-doc would be expected to 12 continue in FY '19 and FY '20 and requested in those 13 future years' budgets.

14 The second post-doc would work with Trevor
15 Branch in his modeling and stock assessment of Prince
16 William Sound herring projects.

So now I will hand it over to Scott Pegau, ourprogram lead, to give the program highlights.

MR. PEGAU: This will be interesting with me being put on a short lead. I have a bad habit of wandering all over.

So first thing you'll notice is I don't have nearly the artistic eye that Mandy has. So my slides don't look nearly as pretty as hers. I'm going to talk about a lot of what we've looked at over the last five

years. Obviously we've been into -- we're six months
 into the sixth year of this program so a lot of the new
 projects that just started off are exactly that,
 they're just getting started. So I've put in a lot of
 the names from the first five years because I'll be
 presenting results of theirs.

7 Just a reminder why are we looking at herring. 8 Back in the '80s we were looking at a population that was estimated nearly 120,000 tons. A couple years 9 after the oil spill that crashed down close to 20,000 10 11 tons which is the fisheries threshold, this being 12 metric tons. We bounced around that fisheries 13 threshold. The blue line is the age structure analysis model and these last three red dots are based off of 14 15 acoustic surveys of what our population is and so it's our best guess as to where things are. We are -- we've 16 just transitioned ASA models and I'll actually show you 17 18 results from that.

19 But the important thing to take is now we're 20 looking at somewhere probably between three and 5,000 21 So we went from 120 down to three or five. This tons. 2.2 is important for both the economy of the region, it was 23 a huge fishery and the ecology of the region. Herring 24 represent about 90 percent of the forage fish. Even at 25 that 20,000 tons, that was the estimate that they were

1 -- about 90 percent of the forage fish.

2 So design, we began in 2012, you know, we're 3 obviously just starting our second five years. We are focused in Prince William Sound, there's so much that 4 needs to get done we had to kind of decide a focus 5 area. And unlike the Gulf Watch Alaska Program which 6 7 is a monitoring program, we have a mix of monitoring 8 projects and process studies. So it's being able to 9 track what's happening and then also apply studies that 10 help us address why we think we're seeing what we are.

Pictured here is actually some -- a series of pictures from the Herring Tagging Program, putting out acoustic receivers, downloading data from them and surgery on a herring that was taking place this spring.

15 So goals and objectives. You know, we're looking to improve the predictive model of the herring 16 stocks through observation and research. And this is 17 18 really aimed towards Fish and Game as far as a management agency, being able to improve the models 19 20 that are used there. So we are looking to expand and 21 test the herring stock assessment model used in Prince 2.2 William Sound. We're providing the inputs necessary to 23 actually run that model. We examined the connections 24 between herring condition or recruitment to the 25 physical and biological oceanographic factors and we

Page 61 continue to look for new ways to improve our monitoring 1 2 capabilities. 3 MR. WACKOWSKI: So your goal is not to tie or try to understand the connection between the oil spill 4 and herring crash..... 5 6 MR. PEGAU: No. 7 MR. WACKOWSKI: .....it's just a count? 8 MR. PEGAU: You know, what we are looking -we're more interested in at this point is why aren't 9 they recovering. Because if we're to look at any kind 10 11 of restoration -- active restoration activities, you 12 have to understand what's limiting their recovery so 13 that you put your effort on the correct side of any The arguments about why they crashed, you 14 bottleneck. 15 know, we did I think a -- at this point we know we don't have the data to answer that. 16 MR. HARTIG: But, Scott, this is Larry. 17 18 MR. PEGAU: Yeah. 19 MR. HARTIG: Your -- I know that herring 20 populations swing quite a bit and over..... 21 MR. PEGAU: Yep. 2.2 MR. HARTIG: ....long periods of time. 23 MR. PEGAU: Yep. 24 MR. HARTIG: How far outside those kind of 25 historic ranges are we talking about if these more

1 recent data hold true?

4

2 MR. PEGAU: So that's actually one of the 3 results I'm going to show.....

MR. HARTIG: Okay. Sorry.

5 MR. PEGAU: ....but I'll tip my hand. In a 6 meta-analysis of worldwide population -- herring 7 populations and their crashes, Prince William Sound is 8 the deepest and longest in duration. So when you look 9 worldwide Prince William Sound is way outside the norm 10 for crash.

11 MR. HARTIG: Thank you.

12 So in the first five years we had a MR. PEGAU: 13 little bit of a -- we had a focus that really looked at young of the year. We had a lot of different projects 14 15 that went in a number of different categories so the first set were all designed to look at the model and 16 provide information. The second set in green is things 17 18 that were necessary to help us put together a 19 synthesis. The ones in the top right were designed to 20 check the assumptions that we had in our measurements 21 and make sure that we weren't going to do 20 years of 2.2 measurements that turned out not to have value. And 23 then we -- the ones in the lower right were designed to 24 look at new approaches to monitoring. And then 25 coordination and outreach addressed all of them. So

I'm going to actually pull some highlights from those
 first five years so that's why I want you to be aware
 of that.

Right now current projects are -- you know, 4 we're down to seven projects. Modeling from Trevor 5 Branch. Aerial and age surveys which is the basic 6 7 information collected by Fish and Game necessary to run 8 a age structured analysis model. Acoustic surveys as 9 another check for what the population level is. 10 Disease research. Reproductive maturity which is the 11 one that Shiway mentioned. A herring migration 12 coordination. And then the research fellowships, Maya 13 Groner who will be coming in working primarily with Trevor Branch and myself, her focus is on disease 14 15 ecology. And the request to you was to support a second fellowship which is David McGowan who looks at 16 recruitment and the environmental conditions. 17

18 So some of the lessons learned in the first I said we had a focus on young of the 19 five years. 20 year. One of the assumptions was that we'd be able to 21 do acoustic surveys in a manner that would allow us to 2.2 determine survival. And what's pictured here is four 23 different surveys of the same area. And if you just 24 look at the dark blue color. So survey one was the 25 first three days of October, survey two was in the

middle of October, survey three was at the end of 1 2 October. And what you see is that when we surveyed the 3 exact same area and try to estimate what our age zero population is, we're -- have a factor of 10 plus 4 variation. And that really set the stage for this 5 current five years because if we can't get a survival 6 estimate we're kind of limited in how much we can say 7 8 about the age zeros. So you'll see that the current 9 five years were focused much more on the adults as we 10 try to sort out what our capabilities are there.

11 Since we were looking at age zeros a lot of 12 information on first year growth was plotted here. The 13 blue is water temperature versus growth of the herring in the first summer. And so for the most part there's 14 15 a good correlation 2004, '5 and 1989 for some reason all sit as outliers. Now what's plotted in -- with the 16 green dots is Diatom abundance. And that plot includes 17 18 2004 and 2005. And it is the tightest of the relationships we found between environmental conditions 19 20 and herring growth. And, you know, we don't think of 21 herring eating diatoms, but what diatoms have, and it's 2.2 important, it's diatom abundance not total chlorophyll, 23 it's not the total primary productivity, it's a food 24 quality issue because diatoms have essential fatty 25 acids that are required for growth. And the orange is

1 the actual zooplankton levels which is the food for 2 herring.

3 Another thing that we found is that there is a 4 critical size to survive. So in the upper right the blue dots are measurements of the scale growth 5 increment versus fork length. That red dotted line is 6 when we look at Fish and Game's historical data base 7 8 and what is the smallest fish that shows up surviving 9 to spawning age, that's the line that those fish have to cross. So about 85 millimeter fork length is --10 11 seems to be a very important size for the fish to 12 When we look at the RNA/DNA we also find that reach. 13 there's a change. So the fish have a mechanism where they shift from growth which is the higher they are in 14 15 RNA/DNA the more they're trying to grow into lipid storage. So they're trying to get fat. So if they can 16 reach about 80 millimeters they are also able to shift 17 18 away from growth and try to get fat so that they can survive that first winter. 19

20 One of the interesting things was the tagging 21 study. It was done originally as a proof of concept 22 where we tagged fish, we demonstrated the feasibility 23 of not only tagging, but those fish survived much 24 better than most people would have predicted. What 25 surprised me is that they could leave the spawning

grounds and be at the southern end of Montague Strait 1 2 within three days. So 115 kilometers three days after 3 surgery or four days because we hold them a day before 4 we release them. And so in the current program there's expansion of this effort. One of the 5 interesting things was the first time we did it almost 6 7 all the fish went down to Montague Strait, this last time they all went out Hinchinbrook entrance and then 8 9 came up around Montague Strait.

10 Genetics. It was an interesting thing because 11 when we looked at the genetics of the fish in Prince 12 William Sound and compared it to regions outside, this 13 top graph shows that Prince William Sound fish look genetically similar to those upstream of us. 14 So Kayak 15 Island and Yakutat are all clustered pretty tight. When we first looked at that top graph we saw that 16 Kamishak which is Cook Inlet, Iliamna and Kokak which 17 18 are Shelikof Strait, all looked extremely different, you know, and the geneticist said this is like the 19 20 difference of salmon between Prince William Sound and 21 Cook Inlet, it's that genetically different. Then when 2.2 we looked at individual fish, so the black dots are 23 Prince William Sound fish, the green dots are the Kokak 24 fish and the yellow dots which are Cook Inlet, then we 25 saw that Cook Inlet is actually a mix of these two

stocks, one from Shelikof Strait and one that's 1 2 genetically similar to Prince William Sound that's 3 being mixed in that Cook Inlet area. And this is helping us understand, you know, parts of why they're 4 -- the potential for gene flow is showing the potential 5 for reasons why Cook Inlet crashed, Kodiak Island did 6 not because of these mixtures. But it also refers back 7 to our potential for gaining stock from upstream. 8 So 9 we can always hope that Prince William Sound can 10 benefit from the rumors, talking with fisherman from 11 Yakutat that say there's a lot of herring around 12 Yakutat these days. So for me it's always encouraging. 13 Recruitment is something that we've looked at. I was the one that probably walked into here and said I 14 15 really anticipate a large recruitment in 2015. And then it didn't happen or at least the population level 16 did not jump up as I was anticipating. You know, and 17 18 then I had to do a lot of explaining. And my explaining here is much less than my explaining on the 19 20 docks in Cordova where I have to explain to all the 21 fishermen what I'm seeing. We're seeing large spikes 2.2 in recruitment so plotted in the upper left is the 23 number of age one schools that we're observing and so 24 you -- the big peak is 2013, that's fish that I 25 expected in 2015. We saw a lot of fish this past

summer as well and so we're picking up some of that
stuff.

One of the issues that happened we had a huge crash in 2015 right as I was expecting a huge recruitment event to occur. And that leads me to those evil disease people. Well, it's not Paul is evil, but he studies things that are evil. Lot of people like to blame whales, I'm down in the microorganisms these days.

10 So one of the biggest issues that we've had 11 dealing with disease is we have been looking at 12 prevalence for the last, you know, 25 years. And 13 prevalence is basically saying how many fish are sick on that day. VHS is one of those diseases that can run 14 15 through the population in two weeks and kill between 70 and 90 percent of the fish that get infected. And so 16 it's easy to have a outbreak of this infection sweep 17 18 through the population without us being able to detect 19 it. But one of the big breakthroughs this past fall 20 was the ability to look not at how many fish are sick, but how many fish have been sick. So we're looking at 21 2.2 the antibodies now in the blood of the fish. And so 23 what's plotted here is the percent zero positive which 24 are basically those -- the percent of the fish that had 25 antibodies detected with blue being Prince William

Page 69 Sound and red being Sitka. And so what you're seeing 1 2 is that we are seeing somewhere between 15 and it 3 jumped up in 2015 to 35 percent. Now remember I just said that this disease kills 70 to 90 percent of the 4 fish that are getting infected. And so if you just do 5 a back of the envelope calculation that meant in 2015 6 7 there was likely to be between 15 and 27,000 tons of 8 fish died from this disease right as I was expecting us to move up off of the 22,000 tons that we were at. 9 10 And so -- and then you look at Sitka and 11 Sitka's -- instead of being at this 15 to 20 percent is 12 running 1 and a half to 2 percent for the most part. 13 So Sitka is quite often our comparable population and so we're seeing that there's a huge difference in 14 15 disease that we are now able to start taking account of. 16 So products from the first five years, 28 17 18 publications and I will fess up, Paul Hershberger is an 19 amazing publication machine so three-quarters of those 20 belong to Paul Hershberger. One master's degree, 21 numerous presentations, my normal job is with the Oil 2.2 Spill Recovery Institute so I get a lot of phone calls 23 related to the Exxon Valdez so, I mean, you mentioned 24 being out when Deep Water Horizon occurred, first four

And they generally asked three things, lingering oil,
 herring and killer whales. And so we have done a lot
 of outreach related to what we are learning about
 herring and its impacts on the ecosystem.

So we talk to scientific groups, fishing groups 5 and general audiences, you'll find things in 6 7 newspapers, magazines, radio. Our target really is 8 Department of Fish and Game because they are the 9 primary manager of that resource. Although as a forage 10 fish, like I say 90 percent of the forage fish in 11 Prince William Sound have been herring, it shows up as 12 prime connection into the Gulf Watch Alaska and into 13 other types of audiences.

We also work with former herring fishermen. So Cordova District Fishermen United has a herring group and I go to present to them on a regular basis because they really want the information about why aren't the fish recovering.

19 So at this point the primary.....

20 MR. WACKOWSKI: What do you -- what do you tell 21 them? 22 MR. PEGAU: Huh? 23 MR. WACKOWSKI: What do you tell them, we don't 24 know?

MR. PEGAU: Why they aren't recovering?

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MR. WACKOWSKI: Yes.

2 MR. PEGAU: We have not found the right set of 3 conditions although now that we see this disease result 4 that is changing the discussion because in the past the fishermen love to blame the whales because they're 5 easier to see and they eat a lot of fish. Now that we 6 7 see what the disease is doing and you can run numbers 8 about the impact of that disease, we're having a lot more discussion about the role of disease and what that 9 10 is doing. And that's why with Paul Hershberger's 11 request for additional funds is to try to narrow when 12 that's occurring, is it before the fish recruit into 13 the population so is it young fish coming into the population that are carrying the disease in or is it 14 15 older fish that have the disease that then took out or are taking out the younger fish as they come in without 16 the exposure. And so I think in that sense that's 17 18 where we're learning the most.

We are also looking at the food related issues that the two kind of big things between the most recent crash and the crash that occurred in the early '90s is it occurred right after a warm spell that had a demonstrated nutritional stress on the fish. So if you look at the fish now they are smaller and lighter than they have been and that occurred also right before they

crashed. And so it looks like there may be a 1 2 nutritional stress that's taking them down, setting 3 them up for the disease. 4 Although this data that's being collected is the data that would be able to be used for the agency 5 to determine if a fishery could reopen and also is the 6 7 data that's necessary to determine if recovery has 8 existed according to your Integrated Herring 9 Restoration Plan. 10 MR. HARTIG: Say, Scott.... 11 MR. PEGAU: Yeah. 12 MR. HARTIG: .....a couple questions. When 13 would you -- and I'll give you both guestions because they're related. When would you have what you consider 14 15 reliable numbers on the population, you know, given this apparent drop and how far can you go down before 16 you think that the population just wouldn't be able to 17 18 recover. So as far as the reliable numbers, 19 MR. PEGAU: 20 I think that we have the reliable numbers and we 21 generate them on an annual basis. The reasons why I 2.2 didn't use the Fish and Game ASA model is we shifted 23 from the Fish and Game ASA model to the UW ASA model 24 which has been part of this process. And I really want 25 to talk to Trevor Branch before I fully use that one to
1	show. And I will actually show it and I'll show you
2	why I have questions. Models don't like crashes in
3	populations that they can't explain. And so I want to
4	make sure that we are addressing if there was a crash.
5	If you look at all the observations, all the
6	observations say the population is down. And now it's
7	just getting a model to make that agreement.
8	Can they recover, yes, there is historical

9 evidence that this population has been down at very low 10 levels. So if you go back into the early '70s they 11 were running around the 15 to 16,000 tons is the 12 estimate. And they were able to build up to the 13 120,000 tons. The great thing about herring is they're 14 a boom or a bust fish, they can have amazing large 15 recruitment from very small populations.

So some of the results over the past few months that we've been underway, modeling has looked at this boom or, you know, the crashes globally and have found that Prince William Sound is highly unusual in both the depth and the duration of the crash.

The aerial and age surveys that are conducted by Fish and Game, so this year is they're out doing this, this is a primary input for the age structured analysis model. Little spawn was observed which is the indication that we don't have much of a spawning

population left. Almost all the fish that we found are ages three to five which means that we lost a large chunk of old fish that would normally be part of that population. Again this reflects a disease -- most likely reflects a disease. And the fish are smaller at age which means that it's an indication that they're likely to be nutritionally stressed.

8 Acoustic surveys are initial estimates that, you know, there's slightly more fish than there were 9 10 last year, that last year might have been our low. 11 Disease research, you know, really wanted to try to 12 tease out when these fish are being exposed to the --13 particularly the viral hemorrhagic septicemia although we are working actually with three different diseases. 14 15 The VHS is just the biggest of the three.

Reproductive maturity. Had lots of fish that 16 we processed this spring. We've had difficulty finding 17 18 fish in the summer and fall. We're continuing to go 19 out, refine techniques, so that we can ensure that we 20 can make these collections. Age at maturity is one of 21 the components that are in the age structure analysis 2.2 model that shifts from the spawning stock to the total 23 stock.

Herring migration. Fifty-eight of the 125 fishthat we tagged this year have been observed at the

entrances. We went out and got a chance to pull up data early, we didn't plan to get data until February, but we have some. We also managed to recover nine old receivers that had been sitting on the sea floor from a previous project, get them back to life and we will be putting those out so that we can supplement the array that the Trustees have provided.

8 And coordination. Other than me going crazy, 9 I'm trying to -- you know, I will be hiring the one 10 post-doctor -- I have hired the one post-doc, you know, 11 and hopefully able to work with the second. 12 Fortunately I have a very good crew of scientists to 13 work with so even if I go crazy they know what to do.

So where are we going. Additional effort 14 15 incorporating new disease information and model going away from the prevalence and looking at the antibodies, 16 connecting recruitment and the environment or -- and 17 conditions -- environmental conditions. We had that 18 19 unusually warm conditions beginning in 2014, we had the 20 crash in 2015, is there a relationship and how does it 21 develop. We want to develop an understanding of the 2.2 collapse since 2014.

And so here is the current age structured analysis model. And one thing that you'll notice in the recent years because the population is down, all

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1	the indications is pulling this end of the model down
2 -	which is pulling down parts of the last few years. And
3	I think that when we shift from a disease prevalence to
4	a disease antibody what we're going to do is we're
5	going to get back to the original Fish and Game model
6	that I presented and then show the crash that's
7	occurred over the last couple years.
8	And with that, any questions?
9	Oh, I should have pointed to Sherri because
10	Sherri is to a large extent my main audience. And
11	fortunately Sherri and I are able to communicate on a
12	semi-regular basis and keep track of things.
13	MS. HSIEH: Sherri, did you want to come up and
14	say something? Sherri is from the Department of Fish
15	and Game.
16	MS. DRESSEL: Bit of context.
17	MS. HSIEH: Oh, sure. She's the Department of
18	Fish and Game herring biologist. And I think oh, go
19	ahead.
20	MS. DRESSEL: Yeah, I work for Fish and Game.
21	I am the statewide herring fishery scientist. I'm also
22	I serve on the Oversight Committee for the Herring
23	Research and Monitoring and so I work closely with
24	Scott and we've been writing a bunch this fall. I also
25	serve on the Scientist Statistical Committee for the

1 North Pacific Fisheries Management Council.

2 And so one of the comments, so Scott mentioned 3 his surveys in 2012 and that you had to explain why they didn't necessarily come to fruition in 2015. And 4 one of your questions earlier on was how you put the 5 information from EVOS into context. And that finding 6 although in 2015 the fish didn't come back for Prince 7 8 William Sound, I think was an extremely finding because 9 as you heard the blob came through and it was hot water 10 that was actually all the way through all depths in the 11 Northern Gulf. It did not go to all depths in 12 Southeast Alaska. So in 2015 we saw a huge recruit class in all stocks in Southeast Alaska. 13 It did not show up in Prince William Sound where it was warm all 14 15 the way down. It did not show up in Kodiak, we don't have numbers, but the condition of fish was poor and it 16 was hot there as well. And so while it didn't 17 18 necessarily come through in 2015 for Prince William 19 Sound it does appear that that was a good recruit year 20 in general.

This fall I wrote to Scott because as one of the things you'll hear from the North Pacific Council is that the Gulf of Alaska Pacific cod has taken a big nosedive. And they had done some young surveys and they found a great recruit class in 2012, but these

Page 78 fish did not survive and make it to 2015. And so it 1 2 was -- it paralleled what Scott had -- what Scott 3 mentioned. And when you had asked if the information 4 was getting through to management agencies or management councils, I actually brought up the EVOS 5 finding and the trend for Prince William Sound because 6 7 it paralleled what we're seeing for Pacific cod. And 8 so it was valuable information even though it was 9 difficult to explain for one area. And I just wanted 10 to share that so you had a little bit more context. 11 MR. MULDER: Thank you. So, Scott, has there 12 been along the way a look back as to the circumstances 13 that drove the peak, 120,000, what the -- I know this 14 is probably.... 15 MR. PEGAU: Historically..... MR. MULDER: .....historical look? 16 17 MR. PEGAU: Yeah, there have been. You know, 18 we have not been doing that in the last five years, that was -- there have been analyses done previously 19 20 that kind of looked at that. I say it's not unusual 21 for these populations to build up very rapidly. And so 2.2 when you look at it it was 1976 and 1977, both had 23 unusually high recruitment and when you have two really 24 strong recruit years together that was able to bring 25 your population up to where we think it was no longer

predator controlled and then it could just build, you 1 2 And it's when it drops below a level then we know. 3 don't know exactly where that level is it seems to shift to a -- essentially a controlled population that 4 then can't build itself back out until it has a large 5 recruitment event. And as Sherri mentioned, you know, 6 7 when I was predicting the large recruitment for 2015 I 8 could say, you know, that there's a good likelihood 9 that Sitka will see this because historically every 10 time Prince William Sound has seen a large recruitment 11 event Sitka has seen a large recruitment event, you 12 And so it's a very large scale event that leads know. to these peak recruitment. 13

MR. MULDER: And is there a correlation between the temperature and the disease, has that been established or....

MR. PEGAU: No, that's just -- you know, it --17 18 this disease information basically came out -- it came 19 out after the original proposal so it was probably 20 April, May that I first started hearing about it. And 21 so that's why we're kind of scrambling to actually see 2.2 if there is a relationship between the water 23 temperature or the condition of the fish and these 24 disease outbreaks.

MS. HSIEH: As a note of history, the Trustee

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Page 80 Council spent a long time discussing, you know, if 1 2 herring weren't on the injured species list, but it 3 became very clear that herring were absolutely important for sea birds and everyone else. And so it's 4 a keystone species for those who've sat here for a long 5 time on the Council. So of course it -- we do focus 6 7 on, you know, will it get higher, what's the next recruitment, but actually just studying herring and 8 what's going on with them dovetails into all the other 9 10 species that are studied as well. 11 Depend -- I think the disease work was also 12 used maybe internationally as well. I think Paul 13 Hershberger's work is -- the reason why he's so -- he's 14 prolific.... 15 MR. MULDER: Prolific. MS. HSIEH: .....but he's also -- I think he's 16 providing and churning out a lot of information other 17 18 fisheries biologists are interested in. MR. PEGAU: So these diseases are definitely 19 20 not restricted to herring..... 21 MR. MULDER: Right. 2.2 MR. PEGAU: .....you know, and they show up in 23 a lot of the other fish. 24 MR. MULDER: Thank you, Scott. 25 MS. WANG: All right. Thanks, Scott.

MR. MULDER: 1 Shiway. 2 MS. WANG: We're going to move on to the Data 3 Management Program. So quickly the Science Panel recommend we fund for the data project. Coordination 4 between this project and the Long Term Monitoring 5 Project has greatly improved. PIs are doing a good job 6 7 of getting the data published and available to the 8 public. I've also requested the link to the Gulf of 9 Alaska data portal to be posted on our EVOS website. 10 So now Carol's going to give you a brief 11 presentation on the program. 12 MS. HSIEH: I think five minutes or something 13 if we could. 14 MS. JANZEN: Five? MS. HSIEH: Yeah, it's quarter to 12:00 so I'd 15 16 like to move up. MS. JANZEN: I'll keep it short, I won't read 17 18 my slide. Just a guick introduction. I'm Carol Janzen 19 20 and I work for the Alaska Ocean Observing System over 21 in downtown Anchorage. I'm relatively new to this 2.2 program, but just a little background on me. I've 23 spent my early career working on the North Slope doing 24 a large scale multi-disciplinary monitoring program for 25 Endicott. And a year after that project completed for

me is when the Exxon spill occurred. And at that time
I had taken a position running a statewide monitoring
program for marine waters in Washington state. So we
were following the response to that spill very closely
in Washington because we have a very similar situation
in Puget Sound as you did in Prince William Sound.

7 So definitely nice to see this program in 8 place. It is a very unique data set. Having -- being 9 the data manager for the state of Alaska, the Alaska Ocean Observing System serves the whole state. And I 10 11 can tell you this program is highly unique in terms of 12 its longevity and its long term development of an 13 ecosystem based, multi-disciplinary research program. There are similar things trying to be established up in 14 15 the Arctic, but that's less of a focused effort. So if you ever want to talk more about that you can give me a 16 call. 17

18 Okay. So that's -- so I am in case you don't 19 know me.....

20 (Off record comments)

MS. JANZEN: So just to give you a quick update on the data management program, our main goal is really just to provide critical data management support for the program for both the Gulf Watch and the Herring Research Monitoring Program. The main priority is data

preservation and making those data accessible to the 1 2 scientific and resource management communities. So 3 we've been doing this for several years now and going 4 forward we are working towards making that data more easy -- easier to discover and to enable users to find 5 data that they're looking for by specific search 6 7 parameters, like space and time, taxonomy, different 8 types of oceanographic parameters. So we'll continue 9 to be working on those.

10 The big highlights for 2017 was the launch of 11 the research workspace which is just a more 12 sophisticated version of what we were working with 13 before, the ocean research workspace. And this was launched to the Gulf Watch Program and the Herring 14 15 Research Program and new features include improved meta-data editor and adding what is called a cloud 16 based numerical workflow or what we're referring to as 17 18 Jupyter Notebooks, this was new to me, which allows PIs to write scripts and leverage other uploaded data sets 19 20 in the research workspace. So this is hopefully going 21 to help with doing large scale synthesis type 2.2 activities of the data and also comparing time series 23 and monitoring data over the long run. 24 This new workspace group was opened for the 25 next five year program also in the last year and that

was all shared with the Trustee Council as well as the
 Science Panel. So you should all have access to that
 research workspace.

4 Main highlights was as Mandy mentioned the DataONE member node became official in July of 2017. 5 PIs can now automatically transfer their data and meta-6 7 data to the DataONE network for long term preservation. 8 And it also provides this digital object identifier which basically means that if you ever go looking for 9 10 the data and where you thought it was if that URL goes 11 down, if you have the DOI number you can find it, go 12 back to its original source and find out where the data 13 are.

It also provides data to a much wider user 14 15 So groups like the National Center for group. Environmental Information for example which is the 16 national depository for environmental data and 17 18 oceanographic data and other types of environmental data, they will become a member node for DataONE and so 19 20 going forward they'll be able to access whatever data 21 sets they want to archive in their system directly. So 2.2 they don't have to go to the individual PI or to us as an organization to get those data. So there's a lot of 23 24 advantages to having that. Most of those data are now 25 publicly available on both the A's Gulf Portal and the

DataONE. Mandy mentioned 45 data sets, currently
 there's 42 loaded. On the DataONE there's a few more
 that have lab results that are still being finalized.
 So those data sets should be up and loaded on the
 DataONE system by February. So there's why you're
 seeing 42 data sets here.

Since July of 2017, 237 downloads have occurred from the DataONE catalog. So that's on average between 9 16 and 80 downloads a month. So you can -- I don't 10 have records of who those people are or what they're 11 doing, but you can see that there's definitely a big 12 interest in those data sets. So this is very good.

13 2018 activities. We're initiating the data management services for this year. We, in fact, are 14 15 leaving today for our PI meeting in Cordova. And the data managers from Axiom Data Science are already there 16 working with people. We'll be facilitating and 17 18 evaluating regular data submissions as we've done in 19 the past and submitting any remaining 2012/2016 data to 20 the DataONE repository. We are also providing 21 supplemental data and meta-data quality control as we 2.2 did in the last five year program. 23

23 We'll be providing and maintaining the 24 technical infrastructure for the program and also 25 publishing and promoting the Herring Research

Page 86 Monitoring Data and the Gulf Watch Program data to 1 2 allow them to be available to as many people as 3 possible. So we'll continue working with the Gulf of 4 Alaska data portal and featuring those data sets there. We've been having very good response from the 5 PIs with this program, everyone's on schedule. 6 Ι 7 haven't had -- we haven't had any issues with people 8 submitting their data so we think everything's working 9 And we're continuing to get feedback from the well. 10 PIs directly as well as from the projects leads. So 11 I'm planning on meeting with the project leads on a 12 regular basis and as needed going forward. 13 So that's pretty much the summary there. Sorry no pretty pictures, but I said if there's any 14 15 questions. Thank you, Carol. 16 MR. MULDER: MS. JANZEN: 17 Thank you. 18 MS. HSIEH: Thank you, Carol. 19 MS. JANZEN: And thank you for having me today. 20 It was really nice to meet everybody. 21 The Trustees should each have a MS. HSIEH: 2.2 draft motion sheet. You just heard presentations for 23 the Gulf Watch Alaska, agenda item seven, also Prince 24 William Sound Herring Research and Long Term Data or 25 Long Term Project are all there under seven. You have

Page 87 -- under the herring you have a couple alternates with 1 2 regard to Gorman. The recommended motion is the first 3 one, full funding for all. Herring projects with 4 Gorman is on contingence. MS. MARCERON: Okay. I move we approve funding 5 of 2,574,860 which includes GA for fiscal year '18 6 7 funding of the Long Term Monitoring of Marine 8 Conditions and Injured Resources and Services, Project 18120114. Proposal dated August 23, 2017. That's 9 10 (indiscernible) with the Gulf Watch Program. 11 MR. HARTIG: Yeah, I'll second it. 12 MR. MULDER: David. 13 MR. ROGERS: Sorry, I'm -- yes. 14 MR. MULDER: Are you in favor? 15 MR. ROGERS: Yes, in favor. Aye. 16 MR. MULDER: Anyone opposed? (No opposing votes) 17 18 MR. MULDER: Seeing none, the motion passes. 19 So that brings us to the..... 20 MS. HSIEH: Herring. MR. MULDER: .....Herring Research Monitoring 21 2.2 Program and you say the first is the recommended? 23 MS. HSIEH: Correct. 24 MR. WACKOWSKI: Recommended by whom? 25 MS. HSIEH: It's in your work plan.

Page 88 Recommended by the Science Coordinator, the Science 1 2 Panel, the Executive Director. 3 MS. ADAMS: And Pat. MS. HSIEH: And Pat. Excuse me. 4 MR. WACKOWSKI: Why do we have two other 5 options? 6 7 MS. HSIEH: Just some -- I try and not premake 8 decisions for you.... 9 MR. WACKOWSKI: Gotcha. 10 MS. HSIEH: .....just in case there was some other discussion or some information that came around 11 12 that shifted the discussion. 13 MR. MULDER: Yeah, this was -- Shiway, you commented on the responsiveness of the Gorman, coming 14 15 back to you with the information? MS. HSIEH: Yeah, we look..... 16 MR. MULDER: Yeah. 17 18 MS. HSIEH: .....forward to working with 19 her.... 20 MR. MULDER: Yeah. MS. HSIEH: .....and are confident..... 21 22 MS. WANG: Yes. 23 MS. HSIEH: .....that we'll be able to. 24 MS. WANG: Yes. 25 MR. MULDER: Do I hear a motion.

1MR. BALSIGER: Mr. Chairman, I would move that2we fund the Herring Project that full funding for3all herring projects. I move we approve funding of4\$1,578,800 which includes GA for fiscal year '185funding of the Herring Research and Monitoring Project618129111. The proposal date is September 11th, 2017.7This amount includes funding of 18120111-D Gorman:8proposal dated July 26, 2007, contingent upon9submission of a revised proposal by November 15, 201710and approved by the Executive Director.11Having read that was it 2007, is that actually12the right year?13MS. HSIEH: I'm sorry, no, that's a typo. It14should be 2017.15MR. BALSIGER: So pretend I said 2017 where I16said17MS. HSIEH: Thank you, Jim.18MR. BALSIGER:2007.19MR. ROGERS: I second. David here.20MR. MULDER: All right. Any opposed.21(No opposing votes)22MR. MULDER: David?23MR. ROGERS: Not opposed.24MR. MULDER: All right. So the motion for the25Herring Project passes.		Page 89
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	23	MR. ROGERS: Not opposed.
25 Herring Project passes.	24	MR. MULDER: All right. So the motion for the
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Page 90 Next on the list is the motion regarding the 1 data for long term projects. Project ending in 113. 2 3 Is there a motion? I'll take my turn. 4 MR. HARTIG: I move we approve funding of 218,000 which includes GA for fiscal 5 year '18 funding of the Data for Long Term Programs, 6 7 Project 18120113, proposal dated August 23, 2017. 8 MR. MULDER: Is there a second. 9 MS. MARCERON: Second. 10 MR. MULDER: David, how do you vote? 11 MR. ROGERS: Yes. 12 MR. MULDER: Any opposed. 13 (No opposing votes) 14 MR. MULDER: Seeing none, that motion passes. 15 MS. HSIEH: Steve, before you move on to the next agenda item may I just make a correction to the 16 prior discussion under agenda item number 6, annual 17 18 asset allocation. That number sounded odd to me, the 19 actual fee for Department of Revenue for FY '17 was 20 about \$37,000. That equates to less than two basis 21 points, .02 percent, on approximately \$200 million in 2.2 assets managed. I just wanted to ..... 23 MR. WACKOWSKI: So that wasn't actually my 24 question. My question was how much did it cost us to 25 make that money so how much did Wall Street get paid to

Page 91 make our profit. That was my question to put it more 1 2 plainly. 3 MS. HSIEH: How much did Wall Street.... 4 MR. WACKOWSKI: So like my IRA, I get charged account fees, if..... 5 MS. HSIEH: Our account was \$37,000. 6 7 MR. WACKOWSKI: Where did this \$700,000 number come from? 8 9 MS. HSIEH: She -- that was a complete error. 10 MS. ADAMS: I added an extra zero. 11 MS. HSIEH: Yeah, she was -- sorry. 12 MR. WACKOWSKI: So we made how much in 13 investments approximately. 14 MS. HSIEH: During the year? 15 MR. WACKOWSKI: Yeah. MS. ADAMS: The annual this year was really 16 high, it was like 16 percent. But, you know, with --17 18 it depends a lot over -- you know..... 19 MR. WACKOWSKI: Right. 20 MS. ADAMS: .....over the years. So it..... 21 MR. MULDER: It varies. 2.2 MS. ADAMS: .....varies a lot. 23 MS. HSIEH: What I can tell you is that 24 that.... 25 MR. WACKOWSKI: I mean, that's an incredibly

Page 92 qood deal. 1 2 MS. HSIEH: That's right. That's correct. 3 Most -- and we knew that, most investment advisors are -- I'm sure you're familiar with..... 4 MR. WACKOWSKI: Yeah. 5 6 MS. HSIEH: .....charge -- were your question 7 -- are you.... 8 MR. WACKOWSKI: That answers my question. 9 Thank you. 10 MS. HSIEH: Okay. 11 MR. MULDER: So that leads us to item -- agenda 12 item eight, lingering oil. 13 Shiway. MS. WANG: Okay. This is the Immunological 14 15 Compromise of Fish Project conducted by Andrew 16 Whitehead. A quick reminder, the overall hypothesis is that oil exposure in early life affects the genetics of 17 18 herring which makes herring more susceptible to disease 19 that's contributing to lack of recovery. This strongly 20 supported continuing project is progressing well, state 21 and federal agency researchers at ADF&G and NOAA are collaborating well with project PIs. And the ADF&G 22 23 staff have been helpful and very responsive with sending tissue collection which has contributed to the 24 25 goals of this project being achieved in a timely

1	manner. The analysis of samples have also been
2	conducted cost effectively which has allowed for
3	additional samples to be collected at other locations.
4	Activities proposed for FY '17 are underway including
5	sequencing of the reference genome for herring, early
6	life development and pathogen challenge experiments.
7	The FY '17 work is ahead of schedule and some
8	activities proposed for FY '18 are already underway and
9	ahead of schedule such as receiving samples from ADF&G.
10	And because the work is ahead of schedule the PI has
11	proposed shifting a portion of future years' funding
12	forward to FY '18 to hire a post-doc now instead of
13	later to accommodate the increase in data generated.
14	And the Science Panel, myself, the PAC and the
15	Executive Director supports this request.
16	And we have Andrew is on the line if you
17	guys have any questions.
18	MR. WHITEHEAD: Hello, everyone.
19	MR. MULDER: Hi, Andrew. Any questions.
20	MR. WACKOWSKI: I move we approve \$429,750
21	[sic] which includes GA for fiscal year '18 funding of
22	the Lingering Oil Proposal Immunological Expressions of
23	PAH Exposure in Fish, Project 1817115 [sic], proposal
24	dated August 23rd, 2017.
25	MR. HARTIG: I'll second.

Page 94 MR. MULDER: David, do you.... 1 2 MR. BALSIGER: Mr. Chairman, just.... 3 MR. MULDER: Go ahead. Discussion. 4 MR. BALSIGER: .....was that a move 492,750, was that what I heard? 5 6 MR. MULDER: Correct. That's the number. 7 MR. BALSIGER: Okay. 8 MR. MULDER: David, do you favor? 9 MR. ROGERS: David, yes. 10 MR. MULDER: Any opposed. 11 (No opposing votes) 12 Seeing none, the motion passes. MR. MULDER: 13 MS. HSIEH: Steve, can I also ask a favor of the Trustees and I'm sorry, I have been a little 14 15 distracted this fall and I'm just -- I want to make sure that a motion from the Trustees regarding the Gulf 16 Watch Alaska and Herring Projects include the shifts 17 18 around the Ph.D. post-doc funding that was discussed by the Shiway. I believe they do, but I just wanted to 19 20 get that on the record in case someone has made an 21 error in one of these versions and I apologize for 2.2 that. 23 That was my understanding. MR. HARTIG: 24 MR. MULDER: That was my understanding. 25 MS. HSIEH: That was my understanding as well.

Page 95 Thank you very much for that confirmation. 1 2 MR. MULDER: Now we have a scheduled break. Do 3 we -- I know we're under a time crunch. 4 MS. HSIEH: Are people willing to keep going or would you like a break? 5 6 MR. ROGERS: I'm good to go. 7 MR. BALSIGER: I'm thinking we can work through 8 the entire agenda and have a break a little bit later. 9 I'm happy to go through the whole thing is that's what you're asking. 10 11 MS. HSIEH: We can keep going and take a break 12 whenever people need it. 13 MR. MULDER: Yeah, let's see if we can push 14 along.... 15 MS. HSIEH: Okay. MR. MULDER: .....because we have one or more 16 Trustees have -- are under a time crunch this 17 18 afternoon. And I want to make sure we have enough people here for any needed motions. 19 20 Shiway. 21 MS. WANG: All right. It is the time for the 2.2 Pigeon Guillemot Restoration Project. This coming 23 year, the FY '18, is the last year of the five year 24 project. No new mink were trapped in the 2017 field 25 season, but there was snow for the first time in four

Page 96 years and mink tracks were actually seen. Counts of 1 2 Pigeon Guillemots at Peak, Naked and Story Islands have 3 doubled in two years. Numbers on control islands didn't have a similar increase. Number of Pigeon 4 5 Guillemot nests quadrupled since 2014 and colonies are starting to form with up to 10 nests in one area. 6 7 Productivity was high which indicates that adults were able to find enough food for their chicks and the field 8 season and the trapping effort for FY '18 was 9 10 originally proposed to be reduced by 50 percent 11 compared to FY '15. However given that this is the 12 last year of the five year project the PIs want to 13 ensure that there are no mink in the Guillemot nesting So they propose a full trapping seasons for 14 areas. 15 this last coming up year and request an increase in the budget to reflect this. 16 And I don't see David Irons in here, but, 17 18 David, are you on the phone? 19 MR. ROGERS: I am. 20 MS. WANG: Okay. 21 MR. ROGERS: Apologize, a different David. 2.2 Sorry. 23 MS. WANG: Oh, sorry. David Irons. 24 David Rogers, David -- sorry. MR. ROGERS: 25 MR. MULDER: Jim.

Page 97 MR. BALSIGER: I just missed -- did you say 1 2 with the snow you saw tracks or saw no tracks? 3 MS. WANG: They saw tracks. 4 But they didn't trap anything? MR. MULDER: MS. WANG: No new mink were trapped in the 2017 5 6 season. 7 But they had a very successful MS. HSIEH: 8 trapping year the year before and as you may recall (indiscernible) provided a permit for culling, but not 9 10 eradication due to the questionable genetics of the 11 mink population. So I -- what we're seeing is fewer 12 mink because it's quite a depressed population we're 13 seeing the Pigeon Guillemot rebound, but there are still some mink, they did see tracks and they're going 14 15 to have a full trapping season this..... MS. WANG: Yeah, it's the last year. 16 MS. HSIEH: .....for the last year. That was 17 18 it in a nutshell. 19 MR. HARTIG: Yeah, that was going to be my 20 question is whether the mink population, you can have 21 some mink left, just assume that there was some 2.2 indigenous population at some point based on the 23 genetics, and the Pigeon Guillemot will still do fine 24 with some mink there. 25 MS. WANG: And I don't have an answer to that

Page 98 question. I think that's something that the -- you 1 2 guys will have to think about monitoring or ..... 3 MS. HSTEH: I think there was discussion and 4 information before because they have a baseline island, I can't remember the island's name, but they do believe 5 that there can be a small population co-exist with the 6 7 Pigeon Guillemots if the Pigeon Guillemots are allowed to increase their numbers. But we'll see. 8 9 MR. MULDER: Any questions, David Rogers? 10 MR. ROGERS: No questions. 11 MR. MULDER: All right. Do I hear a motion on 12 agenda item number 9. 13 MR. HARTIG: Yes. I move we approve funding of 14 \$173,438 which includes GA for fiscal year '18 funding 15 of the Pigeon Guillemot Restoration Research in Prince William Sound, Alaska project 18100853, proposal dated 16 October 5, 2017. 17 18 MS. MARCERON: Second. 19 MR. MULDER: David Rogers, how do you vote. 20 MR. ROGERS: Yes. I'm -- yes. 21 MR. MULDER: Any opposed. 2.2 (No opposing votes) 23 MR. MULDER: Hearing none, the motion passes. 24 That brings us to agenda item number 10, Executive 25 Director updates.

Elise.

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MS. HSIEH: We have the reporting procedures, there's a draft in your meeting notes, fairly administrative updating, you'll see things are highlighted, things were edited for clarification, moving to more electronics transmission, a little clarification with our peer review and the review process. Does anyone have any questions, it's fairly bland? Questions about the reporting policy? MR. MULDER: No, I looked through that. Ιt looked fine. MR. BALSIGER: So the policy includes like the comments that are on the side now, is that.... MS. HSIEH: No, those are comments for you to show you the areas that we have made changes. The final will not include those. MR. BALSIGER: Okay. Thank you. MS. HSIEH: Yeah, I do expect that this policy as well as the financial policy to come before you, we tend to -- we're moving very quickly to try and stay hand in glove with our programs and also Arliss and the changing processes. So you'll see this -- I think the last couple years we've seen edits here and you'll see

25 it again.

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Page 100 MR. MULDER: So the new reporting procedures 1 2 requires that..... 3 MS. HSIEH: Correct. MR. MULDER: .....adoption by motion. 4 Do I hear a motion. 5 MS. MARCERON: Yeah, I move we adopt the 6 7 revised reporting procedures with the draft dated October 9, 2017. 8 9 MR. BALSIGER: Second. 10 MR. MULDER: David. 11 MR. ROGERS: Yes. 12 MR. MULDER: Any opposed. 13 (No opposing votes) 14 MR. MULDER: Hearing none, the motion passes. 15 MS. HSIEH: The annual -- the habitat update catalog, I think that's just a notation that we're 16 working with the Department of Natural Resources. We 17 18 had a hard copy habitat catalog in the past and we're moving toward the digital electronic catalog that I 19 20 think will be much more fluid to use and easier to 21 update. 2.2 The next item we will need Steve Wackowski 23 I guess we could start the discussion, but available. 24 we can't have a vote without him. 25 MR. MULDER: Oh, on the budget?

MS. HSIEH: The annual budgets. I think --1 2 let's see, it's fairly similar. We've kept our budgets 3 fairly static. Item -- a couple things that I was thinking about since our discussion about outreach and 4 it's fine with me either way, we could add to this 5 budget an up to number. You know, we have -- we have 6 7 discussed with State Parks and other entities in the 8 past and I think they have some excellent people there, 9 panels and kiosks, you know, to be added to some of our 10 past more recent projects. And I can start to 11 facilitate some of that and you're welcome -- if you 12 guys want to give me an up to budget now I can start to 13 work with that and maybe get some of that done or we can just wait and I'll bring you back, you know, the 14 15 outline and these sorts of things later. I -- to me it doesn't matter either way because I would be doing what 16 -- it would be sort of basic signage and kiosks as per 17 18 State Parks for example would recommend in those areas 19 and also your own agency folks and interpretative 20 designs. So it's up to you. 21 That's one thought I had. Also I know there's 2.2 some interest in adding back into the budget some money 23 for AMSS. AMSS was initially funded by the Trustee 24 Council and then during 2008/2009 when I first arrived

25 at the Trustee Council we went through the 38 percent

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1	decrease in funding and we pulled way back and kept our
2 .	belt sort of tight and on a glide path to the stand
3	down of the Trustee Council. But I think given the
4	stock market and our belt tightening overall and
5	keeping our budget static we definitely could
6	contribute to AMSS is that's of interest to the Trustee
7	Council for example in the sum of \$10,000 and it would
8	be added to this budgetary number.
9	So I leave that to the Trustees, those two
10	items.
11	MR. MULDER: Any discussion.
12	MR. BALSIGER: Well, Mr. Chairman, on the AMSS
13	in particular, I don't know how many people have been
14	there, but it's a pretty astounding collection of every
15	scientist that works in Alaska on almost any marine
16	issue. It's pretty awesome. Unfortunately they
17	scheduled over another meeting I have in a different
18	part of the country now so I can no longer attend. But
19	I believe in also in the context of our talking
20	about outreach, that this is a communication and
21	coordination event that I think we shouldn't miss. So
22	I'm in I would be in favor of adding 10,000 to the
23	budget to support the AMSS.
24	Thanks for letting me say that. I don't know
25	how much discussion you want, but

Page 103 MR. WACKOWSKI: I'd second Jim's motion, I 1 2 agree with his comments on the value of the Alaska 3 Marine Science Symposium. MR. MULDER: Does somebody want to make that 4 5 motion with the.... MS. HSIEH: Well, also did you guys want a 6 7 preforwarded outreach budget if I start working with State Parks and somebody needs to get some signage and 8 kiosks going or at least to pay them for their design 9 10 and work with me to come up with some of these. Ι 11 don't know if the staff will need some funding. 12 MR. BALSIGER: I'd be happy to also offer an 13 amendment to suggest that we provide up to \$10,000 for 14 such an effort, to work with agencies..... 15 MS. HSIEH: Okay. Just staff budgets are tight. 16 MR. MULDER: Anymore discussion on the signage 17 18 outreach.... And, Steve, if you want.... 19 MS. HSIEH: 20 MR. MULDER: ....amendment? 21 MS. HSIEH: .....I can do one of my off the 2.2 cuff motions that I'm famous for. 23 MR. MULDER: Nobody else is going to volunteer 24 to do a off the cuff amendment. 25 MR. HARTIG: I thought we had them both.

Page 104 Yeah, he made a motion to..... 1 MS. MARCERON: 2 MR. HARTIG: Yeah, I took Jim's as a motion. 3 MR. WACKOWSKI: Isn't Jim's still on the floor? MR. MULDER: Yeah. 4 MR. HARTIG: And.... 5 Right. But the..... 6 MS. HSIEH: 7 MS. ADAMS: But you'll have to amend the budget 8 I guess. 9 MS. HSIEH: .....for the -- I have to -- I have to do a -- yes, that's fine. We -- the motion for the 10 11 budget will..... 12 MR. HARTIG: Why don't you recap it and we'll 13 start over. 14 MS. HSIEH: There we go. A potential motion 15 could be.... MR. HARTIG: Just say here's the motion. 16 MR. MULDER: Here's the motion. 17 18 MS. HSIEH: Move to approve 2,261,585 which includes GA for the funding of the FY '18 EVOS annual 19 budget, project 18180100, budget dated October 26th, 20 21 2017 with the addition of \$10,000 plus a GA, that 2.2 number did not include GA, for the funding of FY '18 23 AMSS. And with an expectation that the AMSS funding 24 would be then presented to you again in subsequent 25 years as well. And also up to \$10,000 which does not

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1	include GA for the Executive Director to initiate
2	outreach activities for the public.
3	MR. BALSIGER: I thought that's what I said.
4	MS. ADAMS: Do you need to add GA to that.
5	MS. HSIEH: I already just said it doesn't
6	include GA so she'll have a total
7	MR. MULDER: Is that your motion?
8	MS. HSIEH:number later that's not
9	reflected in this motion. So the GA was not included
10	in those two \$10,000 portions
11	MS. ADAMS: Right.
12	MS. HSIEH:we will have a new number on
13	the budget which is not reflected here and won't be
14	calculated during this meeting.
15	There's one more issue. We do have some
16	previously disbursed and unencumbered end of year
17	administrative budget funds because we didn't have a
18	science premier for this year and we have been
19	requested to reallocate some of those to the Deep Sea
20	Research Journal, the publication costs of which I've
21	been in discussion with Pete Hagan from NOAA are higher
22	than expected. And we would like to support that as we
23	don't have to roll those funds back in and then pay
24	another 10 percent back out and we know the Deep Sea
25	Journal is including many of our PIs and they're a

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1	great scientific outreach publication. So there's also
2 .	a motion there moving to authorize the Executive
3	Director to reallocate previously disbursed, but
4	unencumbered end of year administrative budget funds in
5	an amount to be determined by the Executive Director of
6	publication costs of scientific articles in the
7	journals including the Deep Sea Research Journal.
8	MS. ADAMS: That's a mouthful.
9	MS. HSIEH: That's why I do it.
10	MR. BALSIGER: Well, Mr. Chairman, I would make
11	that motion. I would try to reiterate it, I could tell
12	it was important, but otherwise that would be my
13	motion.
14	MR. MULDER: I think we have it on the record
15	now. Is there a second.
16	MR. ROGERS: I'll second. This is David.
17	MR. MULDER: How do you vote, David.
18	MR. ROGERS: I vote yes.
19	MR. MULDER: Any opposed.
20	(No opposing votes)
21	MR. MULDER: Hearing none, the motion passes.
22	MS. HSIEH: We have reauthorization of the
23	State Parks Kenai River Flats, Riverbank Protection
24	Project. You guys may remember this, last fall the
25	Council approved funding for six riverbank restoration

projects that addressed fish habitat restoration and the protection of habitat to support numerous species affected by EVOS. The primary goal of each project is to restore fish habitat that has been adversely impacted by human activity and to provide continuing habitat protection into the future.

7 The Council funded up to approximately 2.214 8 million for the six projects. For one project, Kenai River Special Management Area, Kenai River Flats 9 10 Riverbank Protection, the EVOS office recommended and 11 the Council funded up to \$327,000 of the 1.4 -- well, 12 it's 1,436,650 total as there was potential for federal 13 or other funds to complete the anticipated total budget. We reference that as the project that's before 14 15 you today. We recommend reauthorization of this previously approved \$327,000 for project 1, Kenai River 16 Flats as the timeline for Federal application for the 17 18 Alaska Transportational Alternative Program funds is December, 2018. As many of you on the Council know 19 20 funds that you approve don't necessarily -- they're not 21 released from our investment account until things are 2.2 ripe to be funded and then they're released and of 23 course we always come back in a 12 month period or 18 24 months for habitat or habitat enhancement and ask for 25 reauthorization because many projects don't get done in

Page 108 a 12 month or 18 month time span. 1 2 Now we have Rys Miranda here from State Parks 3 if there's any questions about this or any of the other riverbank protection projects that you authorized last 4 5 year. 6 MR. MULDER: Any questions. 7 (No comments) 8 MR. MULDER: Do I hear a motion on agenda item 9 12. MR. ROGERS: Yeah, you want me to handle this 10 11 one? 12 MR. MULDER: Sure. 13 MR. ROGERS: I move we approve reauthorization of \$327,000 which includes GA for FY '18 funding of 14 15 ADNR/State Parks Kenai River Flats, Riverbank 16 Protection, Project 17170116 for the ADNR/State Parks Kenai River Riverbank Protection, Project 17170116 17 dated August 31st, 2017. 18 19 MR. MULDER: Is there a second. 20 MS. MARCERON: I second. 21 MR. MULDER: How do you vote, David. 22 MR. ROGERS: I vote a big yes. 23 MR. MULDER: Any opposed. 24 (No opposing votes) 25 MR. MULDER: Hearing none, the motion passes.
Page 109 That brings us to agenda item 13. 1 2 Agenda item 13. Lauri, you're up on habitat 3 protection parcel..... 4 MS. ADAMS: Okay. .....Meals Hill right before 5 MR. MULDER: Meals Hill. This is in the Port of Valdez. 6 lunch. 7 Okay. We have just one new small MS. ADAMS: 8 parcel for your consideration. It's the Meals Hill Project in Port Valdez in Prince William Sound. 9 Tt. 10 consists of two lots, adjacent lots, a total of 184 11 acres of coastal land and wetlands in the City of 12 Valdez. There is a description map and some photos of 13 the property in your materials. The property encompasses coastal, wetland and upland habitat that 14 15 ranks in the highest priority category in the 2014 EVOS prioritization for habitat protection including for 16 species of nearshore fishes, birds and marine mammals 17 18 injured in the spill. It provides a mile of forested coastline immediately adjacent to subtitle communities 19 20 with continuous kelp beds along the entire one mile 21 stretch. It's also in close proximity to two previous 2.2 EVOS habitat purchases and a productive salmon stream 23 and this would build on prior EVOS investments and 24 habitat protection. In addition the property located 25 within boundaries of the community of Valdez and would

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provide a unique, locally accessible recreational and
 tourism resource in this spill community. It's located
 within walking distance of the Valdez ferry terminal,
 the small boat harbor and downtown Valdez.

The City of Valdez has been engaged and 5 recently passed a city council resolution unanimously 6 7 supporting the purchase. City leaders are enthusiastic 8 about securing the property for public access and use 9 and are considering entering into a management 10 agreement with the state to assume management or 11 possibly even accepting the property into city 12 ownership.

13 Those discussions are just starting between DNR and the city and the benefits will -- report will be 14 15 updated to reflect the city's potential involvement as well as to add the final appraised value because we 16 don't have a final appraisal quite yet. As with all 17 18 our habitat parcel project the Council's authorization is an initial step in a complex negotiated transaction 19 20 between a willing seller and the purchasers which 21 requires quite a number of approval by state and 2.2 federal agencies and their attorneys along the way 23 including the negotiated purchase agreement and an 24 appraisal in accordance with EVOS standards, extensive 25 due diligence and approval by the state and federal

Page 111 agency purchasers and the Executive Director of EVOS 1 2 before completing the purchase. Council funds are 3 authorized for an 18 month negotiation period for this 4 purchase. And as I mentioned we don't have a final 5 appraisal yet so we're requesting the Council's 6 7 approval of an up to amount of 5.2 million for the purchase of the Meals Hill property at its fair market 8 9 value based upon an approved appraisal including funds 10 for due diligence expenses, appropriate initial 11 enhancements for public use and closing costs. 12 Does anyone have questions or discussion? 13 MR. BALSIGER: Can you remind me when we 14 started working on this? 15 MS. HSIEH: Meals Hill? MR. BALSIGER: Meal Hill, yeah. 16 MS. ADAMS: Oh, Great Land Trust, a year or 17 18 more ago. 19 MR. BALSIGER: Was it just that recent? Ι 20 thought it was surprisingly quick for ..... 21 Sometimes it takes a long time. MS. HSIEH: 2.2 MR. BALSIGER: Thank you. 23 MS. ADAMS: Yeah, sometimes. And this is a 24 smaller parcel which is one of the reasons and it was 25 on the market and, you know, so that makes a

Page 112 difference. You had a seller that was interested in 1 2 selling. 3 MR. HARTIG: This is Larry. Yeah, I think it's I mean, I've walked those trails myself and 4 great. been down there and I think it's -- talking about 5 public outreach, I think there'd be a good opportunity 6 7 to -- for signage and interpretative material there. And I didn't if initial enhancements for public use 8 would include that kind of thing. 9 10 MS. ADAMS: That's what we had in mind..... 11 MR. HARTIG: Okay. So that would include..... 12 MS. ADAMS: .....particularly because it's in 13 the community and also..... 14 MR. HARTIG: .....interpretive signs and that 15 sort of thing? MS. ADAMS: .....also possibly a gate and maybe 16 a little bit of trail work, but, you know, that would 17 18 have to come in with the budget..... 19 MR. HARTIG: Right. And we'd have to notice 20 the.... 21 MS. ADAMS: .....as to what they would actually 22 want to do. But, yeah, that was the idea. 23 MR. HARTIG: Okay. And I -- as we -- the three of us discussed I met with DNR and their concern with 24 25 their budget about if they take management of the

Page 113 property not being able to handle that with their 1 2 current budget. And so as I understand the motion is 3 contingent upon a number of due diligence and other things in place and that would include coming up with a 4 plan for long term management that satisfies DNR. 5 MS. ADAMS: That's correct. 6 7 MR. HARTIG: And we would go forward without 8 that. 9 MS. HSIEH: That's correct. Every parcel. 10 MR. HARTIG: Yeah, I just want to verify on the record so that -- I told them I would do that. 11 12 MS. HSIEH: Yeah, thank you. 13 MR. MULDER: Was this one of our parcels in the catalog in the prior authorization by Great Land Trust 14 15 before or is this something new? MS. HSIEH: Was it covered in the 16 prioritization, yes. 17 18 MS. ADAMS: Yes, it was. 19 MS. HSIEH: They weren't parcel by parcel. Ιf 20 you remember they were land mass, we didn't call 21 out.... 22 MR. MULDER: Right. 23 MS. HSIEH: .....individual parcels for obvious 24 reasons. And there also are very close, not 25 connecting, not adjacent, but very close parcels that

Page 114 EVOS had already purchased for habitat. 1 2 MR. MULDER: I saw that. 3 MS. HSIEH: Yeah. From the prior era. MR. MULDER: Any other discussion. 4 MR. ROGERS: This is David. I just want to ask 5 you are very comfortable with this proposal is what I'm 6 7 hearing.... MS. HSIEH: We -- I mean, we still have 8 9 the.... MR. ROGERS: ....Larry? 10 MS. HSIEH: Oh, it's for Larry. 11 12 MR. HARTIG: Yeah, I am. I'm very comfortable 13 with it. MR. ROGERS: No, no. Well, I'm sorry. 14 15 Actually no, I was asking Elise and Lauri if -- I 16 understand that you're very comfortable, Commissioner, 17 but just wanted to make sure staff is okay and there's 18 no footnotes. 19 MS. HSIEH: No, we think of this, it sounds 20 like it has a stand of trees and it is well used and 21 the ferry terminal's right there, I think it would be a great opportunity for the Trustee Council. As usual 22 there's a lot of footnotes with these parcels because 23 24 as we go through due diligence if we find something 25 that makes us uncomfortable or the Department of

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Interior Solicitor's Office or any of us uncomfortable 1 then -- you know, these things don't come to fruition. 2 3 But so far this is looking very promising and we're excited about the opportunity. 4 MR. ROGERS: Thanks. 5 MS. ADAMS: And I'd agree. I think it's a good 6 7 project and haven't seen anything that gives me pause 8 yet. Obviously there's things that -- management that 9 has to be worked out and so on, but I think it has 10 great potential and the community is very enthusiastic 11 about it. So it would be a good one to do. 12 MR. MULDER: All right. Well, although there 13 are no footnotes to the proposed motion, it is the 14 lengthiest one of the day. Are there any volunteers? 15 MR. HARTIG: Can't we just refer to it? MS. HSIEH: Yes. Would you like me to read it 16 out loud? 17 18 MR. HARTIG: No, I think that what we have on 19 the agenda as agenda item 13, habitat protection, as 20 it's written, that's my motion. MS. HSIEH: Okay. I can give it to the -- I 21 2.2 can read it out loud if you would like. Often I do 23 that. 24 MR. WACKOWSKI: Does it have to be read out 25 loud?

Page 116 MS. HSIEH: No, I think I can -- can I give you 1 2 something to submit into the record? Okay. We'll do 3 that. MR. HARTIG: Okay. Let's do that. 4 MR. MULDER: All right. So this is the motion 5 to approve funding for the protection of the Prince 6 7 William Sound, 4,009 Port Valdez Meals Hill parcel. Is 8 there a second. 9 MS. MARCERON: Second. 10 MR. MULDER: David, how do you vote. 11 MR. ROGERS: I vote yet. 12 MR. MULDER: Any opposed. 13 (No opposing votes) 14 MR. MULDER: Hearing none, the motion passes. 15 MS. HSIEH: Steve, if I may. I realize that the State Parks Kenai Flats Riverbank Protection 16 Project under agenda item 12, the motion that the 17 18 Trustee will be amenable, typically that authorization for funding for habitat enhancement projects and 19 20 habitat is effective for an 18 month period unless it 21 would be stated on the record for that motion that 2.2 authorization is effective through May 1st, 2019. 23 If no one has any objection to that with regard 24 to the Kenai Flats Riverbank Protection Projects. 25 MR. MULDER: This is agenda item 12?

Page 117 MS. HSIEH: Correct. Also I wanted to ask Jim 1 2 Balsiger if you're interested in AMSS funding was for 3 FY '18, it may be wise to make that funding authorization effective December 1st so that I can 4 transfer the funds for this upcoming AMSS that happens 5 I believe in mid January. So they would probably be 6 interested in those funds now versus March 1st which is 7 typical for all the motions that we don't mention a 8 9 specific date run on our fiscal year. So if you'd be 10 amenable to the -- authorizing that AMSS (indiscernible 11 - simultaneous speech)..... 12 MR. BALSIGER: I am amenable. I thought I made 13 that clear when I made the motion. 14 MS. HSIEH: We have to actually state..... 15 MR. BALSIGER: I'm joking. 16 (Laughter) MR. BALSIGER: I'm amenable, you're right. 17 18 MS. HSIEH: I think I would suggest the same for the outreach budget because I will jump on this and 19 20 try and get the staff onboard quickly and move through 21 some of this as well if everyone's okay with that..... 2.2 MR. MULDER: Okay. 23 MS. HSIEH: .....to make the outreach funding 24 authorization effective December 1st, 2017. 25 MR. MULDER: Any objections to those changes.

Page 118 (No comments) 1 2 MR. MULDER: David. Are you still with us, 3 David? 4 MR. ROGERS: Yes, got me again. No objection. MR. MULDER: All right. Thank you. All right. 5 Well, since we kind of raced through there that we're 6 7 doing well on time to get the -- Commissioner Hartig 8 where he needs to go. 9 MS. HSIEH: Yeah. 10 MR. MULDER: So that brings us to agenda item 11 14, Bering River Coal Fields, the KADCO Coal Interests. 12 That was the subject of the public comments earlier 13 today. 14 MR. WACKOWSKI: I'd be happy to take the ball 15 on that since.... 16 MS. ADAMS: I mean, I was..... 17 MR. WACKOWSKI: ..... asked for it to get 18 added. 19 MS. ADAMS: Yeah. 20 MR. WACKOWSKI: Is that okay? 21 MS. ADAMS: No, no, go ahead. 2.2 MS. HSIEH: Sure. 23 MR. WACKOWSKI: I had my office for the 24 audience print out a copy of the letter from Senator 25 Murkowski, the Energy Committee, you want to pass that

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1 out or does anyone want to see it?

Senator Murkowski had -- actually the Senate
Energy Committee through Chairman Murkowski had sent us
a request three weeks ago to do a -- and what's the
terms of arm risk to injury analysis.

6 MS. HSIEH: It's actually not our term of art, 7 we're not sure where the language came from, but....

MR. WACKOWSKI: So I had asked for it just to 8 be added for discussion point. I didn't see a harm in 9 10 doing a study. That was before I understood that it 11 would cost us money. So kind of a compromise that I 12 had discussed with Lauri and Elise last night was can 13 we use our own internal staff time to scope a study to see what a study would cost us and then we can act at a 14 15 later date on funding the study. So I'm guessing that 16 would be my proposal. I know that there was an objection from a member to discuss it just because it 17 18 hadn't been vetted through their agency. So my -- I 19 guess my recommendation would be to just have Lauri and 20 Elise scope what a study would cost and then we can 21 decide on whether or not we want to do the study. Ι 2.2 should be abundantly clear this does not mean that we 23 are endorsing or supporting the purchase of the rights, 24 it's just us looking at the study to see if it's a tool 25 in our toolkit.

Page 120 MR. MULDER: Other.... 1 2 MS. HSIEH: We can do stuff. 3 MR. WACKOWSKI: So do we need to a motion to 4 have you scope that? MS. HSIEH: No. 5 6 MR. WACKOWSKI: Okay. 7 MS. HSIEH: We'd be happy to do that for you. We will send the information back email to all the 8 trustees and/or at the next Trustee Council meeting. 9 10 MR. MULDER: I assume, Elise, that to cover the 11 cost you'd have to come up with the scope? 12 MS. HSIEH: Yeah, I think we're going to have 13 to look at that. I think there's some information we don't have for -- I think there might be fact finding 14 15 we're going to have to do. MR. MULDER: That's what I'm wondering is..... 16 MS. ADAMS: Actually there's quite a lot, 17 it's.... 18 19 MS. HSIEH: There's quite a bit actually. So 20 we will start that process to find out more specifics. 21 MS. ADAMS: And that will -- that will partly 22 go into figuring out what the costs are, just figure, 23 okay, what do we need and then how much would that cost 24 and then we'll get back to you on it. 25 MR. BALSIGER: So what kind of timeline did you

Page 121 have in mind for that scope? 1 2 MS. ADAMS: What do you think? 3 MS. HSTEH: I don't know because I'm not sure how long it's going to take to get the information that 4 we need to find out.... 5 6 MS. ADAMS: Well, this isn't to do the study, 7 this is just for the scope. 8 MS. HSIEH: Right. I.... 9 MS. ADAMS: 10 MS. HSIEH: February. 11 MS. ADAMS: Yeah, I'm thinking a couple of 12 months, two to three months in that order and obviously 13 if we can do it faster we will do it, we'll get right on, you know, communicating with the folks that have 14 15 the information. And maybe what we'll do is email 16 MS. HSIEH: you what we find preliminary..... 17 18 MS. ADAMS: Yeah. 19 MS. HSIEH: .....and then you guys can respond 20 back to us and let us know what next steps you feel 21 would be appropriate with the information that we have 2.2 at that juncture. 23 MR. WACKOWSKI: I just have one final item. 24 Joe Darnell, could you stand up. 25 Joe is our regional solicitor here and I just

Page 122 found out, were you a Trustee Council member for a 1 2 while? 3 MR. DARNELL: No. MR. WACKOWSKI: No. He's retiring at the end 4 of the year. He is a national treasure. I've been 5 trying to convince him to stick around, but his wife 6 7 won't let him retire and I don't want to get -- I want 8 to stay on your Christmas card list. And I just wanted to thank you publicly on behalf of DOI, but on the 9 10 entire EVOS for your 30 years of dedicated public 11 service. And you will be missed and we expect you to 12 maybe write a good book on ANILCA and be around to poke 13 us. 14 So thank you very much for your public service, 15 Joe. (Applause) 16 I object. I went to law school 17 MR. MULDER: 18 with Joe and how is it he gets to retire before me. 19 (Laughter) 20 MR. BALSIGER: Speaking of retirements..... 21 No, no one's allowed to retire. MS. HSIEH: 2.2 MR. BALSIGER: Well, I -- it's not me. 23 (Laughter) 24 MR. BALSIGER: I will never retire for reasons 25 you don't want to hear. But Phil Monday, Dr. Monday,

Page 123 who worked in this for quite a long time is retiring I 1 2 think at the end of this year or maybe early next year. 3 So just information.... MS. HSIEH: 4 Oh. 5 MS. ADAMS: Wow. Change. MS. HSIEH: We've relied on Joe a lot and Phil 6 7 is just part and parcel of what EVOS has been. So, 8 yeah, changes. MR. MULDER: Okay. Any other final comments. 9 10 MS. HSIEH: We're done. 11 MR. MULDER: Anybody want to make a motion to 12 adjourn or we just adjourn. 13 MR. BALSIGER: Move to adjourn. 14 MS. MARCERON: Second. 15 MR. MULDER: Yeah. (Off record) 16 17 (END OF PROCEEDINGS) 18 19 20 21 22 23 24 25

CERTIFICATE 1 2 UNITED STATES OF AMERICA ) 3 STATE OF ALASKA ) I, Salena A. Hile, Notary Public in and for the 4 5 state of Alaska and reporter for Computer Matrix Court Reporters, LLC, do hereby certify: 6 7 THAT the foregoing pages numbered 2 through 8 contain a full, true and correct transcript of the Exxon Valdez Oil Spill Trustee Council's Meeting 9 10 recorded electronically by Computer Matrix Court 11 Reporters on the 14th day of November 2017 and 12 thereafter transcribed under my direction and reduced 13 to print: 14 THAT the Transcript has been prepared at the 15 request of: EXXON VALDEZ TRUSTEE COUNCIL 16 Anchorage, Alaska 17 18 DATED at Anchorage, Alaska this 30th day of 19 November 2017. 20 SIGNED AND CERTIFIED TO BY: 21 22 Salena A. Hile 23 Notary Public, State of Alaska My Commission Expires: 09/16/18 24 25