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FEDERAL ENERGY REGULATORY COMMISSION  
ALLISON LAKE HYDROELECTRIC PROJECT  
SCOPING MEETING  
FERC NO. 12530-001

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AUGUST 17, 2005  
1:00 P.M.

HAWTHORN SUITES HOTEL  
1110 WEST 8TH AVENUE  
ANCHORAGE, ALASKA

Participants:

- Steve Hocking, FERC
- Kim Nguyen, FERC
- Earle Ausman, Green Power Development
- David Ausman, Green Power Development
- Joel Groves, Green Power Development
- Jim Ferguson, State of Alaska, Department of  
Fish & Game
- Cassie Thomas, National Park Service
- Amanda Henry, Alaska Coastal Management Program,  
DNR
- Keven Kleweno, Regulatory Commission of Alaska

1 PROCEEDINGS

2 STEVE HOCKING: My name is Steve  
3 Hocking. I am an environmental protection  
4 specialist with the Federal Energy Regulatory  
5 Commission, Office of Energy Projects, and I  
6 want to welcome everyone to the meeting on the  
7 proposed Allison Lake project. This is FERC's  
8 second scoping meeting for the Allison Lake  
9 project, which is No. 12530, and I just want to  
10 say thanks to everyone for coming.

11 If you want to take a quick look  
12 at our agenda, which is this sheet right here.  
13 What we'll do today is go around and have some  
14 quick introductions, and then I wanted to kind  
15 of quickly go through the Commission's  
16 integrated licensing process, an overview, and  
17 talk about some of the major milestones for the  
18 Allison Lake project.

19 Then Green Power Development has  
20 a PowerPoint presentation on the project and  
21 what they intend to do, basically the proposed  
22 action. We may or may not take a break or need  
23 one, then we'll get into scoping, and talk about  
24 issues and alternatives that we'll need to look

1 at for the Commission's NEPA document  
2 ultimately.

3 Then later on we can talk about  
4 the next phase in the licensing process, which  
5 is the study development process. We can talk  
6 about the Commission's study request criteria,  
7 which everyone needs to follow in order to file  
8 a study request with the Commission and with  
9 Green Power Development, and then possibly go  
10 over the Allison Lake process plan.

11 Did everybody sign in? I think  
12 everybody signed in and got all the handouts  
13 that I put in the front. We only have a few  
14 folks here today, so that lets us be quite  
15 flexible in how we want to proceed and probably  
16 will shorten our overall time.

17 Is anybody aware of anyone else  
18 who's expected to show up today? Any other  
19 names of people we can expect today? Does  
20 anybody know if Fish and Wildlife Service is  
21 going to show up?

22 CASSIE THOMAS: I guess, Joel,  
23 the woman, Fran?

24 JOEL GROVES: Right. Fran Mann.

25 CASSIE THOMAS: I know that,

1 according to another colleague of ours on  
2 another hydro project, she was going to come,  
3 but I guess she wasn't at the site visit  
4 yesterday.

5 JOEL GROVES: She was planning to  
6 attend this today.

7 CASSIE THOMAS: They're just a  
8 few blocks from here, but I don't know what  
9 happened to them.

10 STEVE HOCKING: Okay. Well, as  
11 you can see, this is being recorded by a court  
12 reporter or stenographer. All oral comments or  
13 written comments that you hand to me will become  
14 a part of the official record. If you want  
15 copies of the transcripts, within the next ten  
16 days you must get them directly from Ace Federal  
17 Reporters. After that you can get them off of  
18 the Commission's web site from our E-library in  
19 ten days.

20 So what we'll do is do a quick  
21 overview of the ILP process, and then Joel will  
22 talk about the proposed project. I know that --  
23 sorry, I forget your name.

24 KEVEN KLEWENO: Keven.

25 STEVE HOCKING: Keven knows the

1 ILP process inside and out. Are you all  
2 familiar with it at all?

3 CASSIE THOMAS: I am familiar  
4 with it.

5 STEVE HOCKING: You are.

6 AMANDA HENRY: A little bit.

7 STEVE HOCKING: A little bit. Do  
8 you want me to do the overview?

9 AMANDA HENRY: It's not  
10 necessary, no.

11 STEVE HOCKING: Does anyone want  
12 me to do the overview? No? Okay. All right.

13 We'll skip the overview and we'll  
14 just go directly to Joel, and Joel can talk  
15 about the proposed action.

16 Sorry. Let's do our  
17 introductions.

18 JOEL GROVES: I'm Joel Groves  
19 with Green Power Development.

20 DAVID AUSMAN: David Ausman with  
21 Green Power Development.

22 EARLE AUSMAN: Earle Ausman,  
23 Green Power Development.

24 JIM FERGUSON: Jim Ferguson,  
25 Alaska Department of Fish & Game.

1                   CASSIE THOMAS: Cassie Thomas,  
2 National Park Service.

3                   AMANDA HENRY: Amanda Henry,  
4 Alaska Coastal Management Program, Department of  
5 Natural Resources.

6                   KEVEN KLEWENO: Keven Kleweno,  
7 Regulatory Commission of Alaska.

8                   STEVE HOCKING: Kim is with FERC.  
9 She's a civil engineer.

10                  JOEL GROVES: Okay. Let me go  
11 ahead and get started. Some of you have already  
12 heard the presentation and some of you haven't.  
13 I apologize to those of you who will get to hear  
14 the instant replays here.

15                  To start off, Green Power  
16 Development is an entity that was formed by  
17 Polarconsult Alaska to go ahead and pursue this  
18 project. Polarconsult is a small engineering  
19 consulting firm with long-time ties in Alaska.  
20 It's comprised predominantly of professional  
21 civil engineers with a lot of experience.  
22 They're long-time Alaskans. We have identified  
23 this resource and the project and we formed  
24 Green Power Development to go ahead and pursue  
25 that project.

1                   So you'll see Green Power  
2           Development and you'll see Polarconsult and  
3           that's what's going on; that's the relationship  
4           between the two entities and the people.  And  
5           what the project consists of is we're looking  
6           at -- actually, let me go ahead and jump forward  
7           to the map.  We're looking at developing a 4.95  
8           megawatt storage hydroelectric project on  
9           Allison Lake and Allison Creek located near  
10          Valdez, immediately east of the Valdez Marine  
11          Terminal.

12                   What the project consists of --  
13          this is the site of the Valdez Marine Terminal  
14          right here.  Valdez is off the slide right  
15          there.  This is Allison Lake and this right here  
16          is Allison Creek that comes down.  The lake is  
17          about 1,346, 1,350 feet above sea level and it  
18          runs down to tidewater.

19                   What we would be doing is  
20          building a diversion structure at the natural  
21          outlet of the lake.  Then the penstock and trail  
22          will go down to the powerhouse that would be  
23          located on State land just above the marine  
24          terminal property.  And this line right here is  
25          the approximate location of the Allison Lake

1 property. The project drainage area is  
2 delineated by this line right here.

3 This is about 5.7 square miles  
4 and that Allison watershed will be used for the  
5 project flow. That's this area right in here.  
6 That would just be additional inflow into the  
7 bypass reach and downstream of the project.

8 Then also for reference while  
9 we're on this slide is the existing 12 megawatt  
10 Solomon Gulch project. That was built in the  
11 early '80s, located right here, and that project  
12 predates this map. The dams are right about in  
13 here. The reservoir is in here. It's  
14 approximately three miles long. Then there's a  
15 penstock and twin turbines down by tidewater.  
16 That provides 12 megawatts of power to Copper  
17 Valley Electric.

18 This is a closer-in map. It  
19 gives you a little bit more detail of the  
20 project. These are the watersheds that we'll be  
21 using. These are below the lake. This is the  
22 lake and this is the watershed, the 5.7 square  
23 miles of the project. Again, this is the creek.  
24 This is the proposed route of the penstock and  
25 that is a preliminary route. And then the

1 marine terminal is off over here. The location  
2 of the powerhouse.

3 At this point access to the  
4 project we are assuming would be traversing  
5 Alyeska property. They have existing roads  
6 built up to the property line, and we'll be  
7 building a new road in the distance right here,  
8 fairly short road, quarter mile or something of  
9 that order into the powerhouse.

10 And then a construction trail, a  
11 very rough trail, to just get up there for  
12 construction and ongoing maintenance. Then also  
13 in terms of transmission lines to get the power  
14 to market, it would be either a transmission  
15 line to tie into the marine terminal's existing  
16 grid or a transmission line headed over to tie  
17 into Copper Valley Electric at Solomon Gulch.  
18 That would either follow the TAPS right of way  
19 or Dayville Road.

20 STEVE HOCKING: And, Joel, the  
21 proposed action right now is to build both of  
22 those lines, right?

23 JOEL GROVES: Right. For the  
24 purposes of permitting, we're looking at  
25 building both lines. Depending on what the

1 ultimate customer for this power will be, we may  
2 build one, the other, or conceivably both. But  
3 for purposes of the permit application we're  
4 showing both.

5 STEVE HOCKING: The map that's in  
6 the PAD document, the pre-application document,  
7 only shows the one line. It only shows what is  
8 now.

9 JOEL GROVES: Alternate A, the  
10 line to Copper Valley Electric.

11 This is an oblique view of the  
12 project. This is an aerial from July 15th of  
13 this year. This shows all the same features,  
14 but actually gives you a feel for what the area  
15 really looks like. This is looking southeast,  
16 obviously, from the air. This line right here  
17 is the marine terminal property approximately.  
18 And then what we've got is the lake up in the  
19 upper right corner.

20 This right here is Allison Lake,  
21 and then we have the projected or the conceptual  
22 penstock route and trail access coming down and  
23 trying to make the elevation, dropping down into  
24 the powerhouse which is right here. Then again  
25 Alyeska's existing trails are sort of hidden in

1 the trees here, but you can see it coming right  
2 up through here, then it wraps around and  
3 follows the property line. We would be tying  
4 into that. We're assuming that we would be  
5 tying into that, building a new trail to the  
6 powerhouse, and depending on which or both of  
7 the transmission lines are constructed, we would  
8 be either building out to Solomon Gulch or  
9 building one to Alyeska -- and/or building one  
10 to Alyeska.

11 Are there any questions at this  
12 point? Let me just throw that out.

13 DAVID AUSMAN: When was this  
14 picture taken?

15 JOEL GROVES: This is from  
16 July 15th of this year.

17 CASSIE THOMAS: It looks like  
18 you've got glacier in the headwaters; is that  
19 true? And does the square mileage watershed  
20 include the glacier?

21 JOEL GROVES: Yes, it does.

22 CASSIE THOMAS: Okay. As part of  
23 the contribution.

24 JOEL GROVES: Yes. There is a  
25 glacier up in the headwaters and that area

1 includes that glacier.

2 I've already covered some of  
3 this, but I'll touch on the high points. The  
4 project drainage is 5.7 square miles above the  
5 intake of the project. All of that is above  
6 1,346 feet MSL, mean sea level, which is the  
7 natural existing elevation of the lake so  
8 everything is above that.

9 The vegetation up there is  
10 predominantly scrub brush, tundra, barren rock  
11 and/or glaciers. We have some more pictures of  
12 that area that we'll show you to give you a feel  
13 for what it looks like up there. At this time  
14 there are no known fish in that drainage of the  
15 lake or other parts of the project.

16 The additional drainage between  
17 the -- the drainage for the bypass reach is  
18 between the project intake and the powerhouse,  
19 1.8 square miles. Based on the information,  
20 there's no fish habitat or fish up in there.  
21 Downstream of the powerhouse there's no pink and  
22 chum salmon. Last year they identified -- they  
23 did identify some silver salmon down there.

24 The lake or the reservoir of  
25 natural Allison Lake, current elevation is about

1 243 acres, and that provides adequate storage to  
2 generate some winter energy, which is a  
3 limitation of Solomon Gulch. Then it also has  
4 enough storage to provide firm energy capacity  
5 for the region. In Solomon Gulch, as they  
6 operate the plant from about May to November,  
7 and through the winter months they do not have  
8 enough storage on the project to maintain full  
9 capacity. So they will have either zero -- or I  
10 think they do generate the project at a few  
11 megawatts just to keep things from freezing up  
12 in the plant.

13                   Basically they don't have enough  
14 water to generate power year-round for the  
15 project. Because the lake has more -- for the  
16 size of the project the lake has more storage,  
17 so we could actually generate power throughout  
18 the winter depending on the configuration that  
19 ended up being built.

20                   Also, the project footprint is  
21 all on State land. The entire watershed is on  
22 State land and it's behind Chugach National  
23 Forest in the upper part of the watershed, so  
24 that would be BLM. But all of the footprint for  
25 the project, the penstock, everything is on

1 State land.

2 KIM NGUYEN: Do you know if  
3 Solomon Gulch is operated with storage?

4 JOEL GROVES: It's storage. Then  
5 also to speak to the intake structure a little  
6 bit. What we're proposing at this time, which  
7 is sort of the worst case or the biggest  
8 conceivable operation for the project, would be  
9 to construct a 20-foot high dam which would  
10 raise the elevation. It might be 19, 22, but  
11 for planning purposes it's 20 feet, and draw  
12 down the lake, so we would have 90 feet of  
13 active storage in the lake.

14 That may or may not be what is  
15 actually needed to serve our customers' needs,  
16 but for the permitting process that's what we're  
17 using.

18 STEVE HOCKING: That's a little  
19 bit different than how it's characterized in the  
20 PAD, so that's basically a revision.

21 JOEL GROVES: Yes.

22 STEVE HOCKING: I know in the PAD  
23 you mentioned that you were going to use a  
24 woodbent dam. Can you describe that? What that  
25 would look like or how that --

1                   JOEL GROVES: Better than that, I  
2                   can jump forward to right here. This is a  
3                   woodbent dam. What it basically consists of is  
4                   perpendicular to the base of the dam, you have  
5                   these trusses that are anchored into bedrock or  
6                   native foundation, piers or whatever, some sort  
7                   of foundation, and then on the face of those  
8                   trusses you have wood planks or some sort of dam  
9                   base and that constitutes a dam. It's called a  
10                  woodbent dam.

11                  STEVE HOCKING: It's similar to  
12                  what in this picture?

13                  JOEL GROVES: This right here is  
14                  Chignik, Alaska on the hydro. At this stage we  
15                  don't know what kind of dam it would be. It  
16                  might be a rock or woodbent. We need to do  
17                  geological studies of some soils.

18                  DAVID AUSMAN: It might be  
19                  worthwhile just to mention that the dam at  
20                  Solomon Gulch is a rock-filled dam with a  
21                  concrete face.

22                  JOEL GROVES: Right, and that dam  
23                  is 60 or 70 feet high, the main dam, I think.  
24                  Something of that order.

25                  STEVE HOCKING: Is it on a

1 moraine, on top of a moraine like at Allison  
2 Lake?

3 DAVID AUSMAN: I'm not sure what  
4 the geology is.

5 EARLE AUSMAN: Looks like rock to  
6 me.

7 JIM FERGUSON: I don't think it  
8 would be on a moraine, because the actual dam  
9 itself, there's a spillway on the other side.  
10 Below it is natural creekbed.

11 JOEL GROVES: So the main dam may  
12 be rock, and they also have a spillway structure  
13 and a smaller dam on the other side. It's a  
14 similar construction in that the spillway weir  
15 is a concrete spillway, but I'm not sure if that  
16 one is built on bedrock or not.

17 JIM FERGUSON: That might be  
18 moraine. It's a big flat area over there.

19 STEVE HOCKING: Just to continue  
20 in that vein, I know everything is preliminary,  
21 but what do you envision in terms of automatic  
22 controls up there?

23 EARLE AUSMAN: Can I answer that?  
24 What kind of automatic controls are you speaking  
25 of?

1                   STEVE HOCKING:  Would you have an  
2                   automatic penstock shut-off valve up there?

3                   EARLE AUSMAN:  We probably would,  
4                   or if we siphon, we'll use the siphon, let the  
5                   air in and shut the water flow off.  We could  
6                   use either one of those two.  Of course we have  
7                   head-level controls.  Probably put in some kind  
8                   of camera or something to see what was happening  
9                   up there so we don't have to go up there and  
10                  look because of the inclement weather and huge  
11                  snows and everything else there, so we can keep  
12                  track of things.

13                  STEVE HOCKING:  And in order to  
14                  control the head pond, you wouldn't be putting  
15                  in gates or anything like that, would you?

16                  EARLE AUSMAN:  It's possible we  
17                  might consider something like what they call an  
18                  overmar gate or something like that in the dam  
19                  in the spillway section, depending on the kind  
20                  of dam we would use.  It tips down and can hold  
21                  a constant elevation.  It's got a steel face and  
22                  a rubber expandable bladder that lifts the steel  
23                  face up.

24                  STEVE HOCKING:  What was the name  
25                  of that again?

1 EARLE AUSMAN: Overmar.

2 KIM NGUYEN: It's not automated.  
3 You're going to have to manually operate it,  
4 right?

5 EARLE AUSMAN: It could be  
6 automated, but I don't think we would. Storage  
7 is important.

8 KIM NGUYEN: Are those gated? Is  
9 that a spillway section there in the middle of  
10 that?

11 EARLE AUSMAN: There's two  
12 spillways on that project. The wooden one is  
13 adjacent to the abutment to the right.

14 JOEL GROVES: Yeah. There's a  
15 natural spillway right there.

16 EARLE AUSMAN: In fact, we  
17 contemplated replacing that dam with an  
18 earth-filled one. We were under contract with  
19 the Corps of Engineers and continued to be in  
20 the relicensing, too.

21 STEVE HOCKING: So you would  
22 probably have to run a power and/or control of  
23 them -- of the penstock?

24 EARLE AUSMAN: That's true. It's  
25 our intention to do that.

1 STEVE HOCKING: Overhead?

2 EARLE AUSMAN: No. No overhead.

3 STEVE HOCKING: It would be  
4 right -- how would you run it?

5 EARLE AUSMAN: Parallel to the  
6 pipeline.

7 STEVE HOCKING: Just right next  
8 to the pipeline, basically?

9 EARLE AUSMAN: Either right next  
10 to it or attached to it or something. Solomon  
11 Gulch has had problems with their conduits and  
12 things like that. We would learn from their  
13 experience.

14 JOEL GROVES: Okay. I'll speak a  
15 little bit about the need for power for this  
16 project. The two principal customers that exist  
17 are the Alyeska Marine Terminal and Copper  
18 Valley Electric Association. At the marine  
19 terminal Alyeska is in the process of what they  
20 call a strategic reconfiguration.

21 Since the terminal was built 20  
22 or 30 years ago, in the '70s, they have  
23 previously identified a potential need for up to  
24 five megawatts of power at the terminal.  
25 They're in flux right now because they're trying

1 to figure out what their needs are and what  
2 they're going to do. That's the primary market  
3 for the power, and the other market in the  
4 region is Copper Valley Electric Association.

5 Currently they have, in a  
6 simplified sense, they have three generation  
7 assets. They have Solomon Gulch, which is by  
8 contract and by economics their sole or primary  
9 generation source during the summer months  
10 basically until they run out of water. Their  
11 secondary generation source is a five megawatt  
12 co-gen located at the Petrostar refinery in  
13 Valdez.

14 Their tertiary source of power is  
15 a diesel genset located in Glennallen with an  
16 additional power plant in Valdez. And the  
17 diesels run predominantly in the wintertime and  
18 therefore are dependent on volatile oil prices  
19 right now. Those rates are very high, sort of  
20 hurting the Copper Valley rate payer.

21 Less costly alternatives may  
22 exist. The one would be the natural gas  
23 pipeline, if that was implemented, and there  
24 would be affordable gas within reach of Copper  
25 Valley, either in Glennallen or in Valdez.

1 There's also been wildcatting done in the region  
2 of Glennallen and that could produce resources  
3 that could bring affordable gas into Glennallen  
4 region. Then of course the other less costly  
5 alternative would be this project.

6 CASSIE THOMAS: I thought I heard  
7 that there was going to be a study sometime soon  
8 of the feasibility of building a connection to  
9 the southcentral grid along the Glenn Highway.

10 JOEL GROVES: Right. The Alaska  
11 Natural Gas Development Authority has done some  
12 preliminary work on that.

13 EARLE AUSMAN: May I?

14 JOEL GROVES: Yeah.

15 EARLE AUSMAN: There's conjecture  
16 on this. There's two to three different  
17 alternatives. The one alternative is the one by  
18 the Alaska Development Authority that Joel  
19 alludes to would take off and -- off the gas  
20 line and come down through the Copper Valley and  
21 into our end of the realm.

22 The second, of course, would come  
23 directly from Fairbanks basically along the  
24 railroad or highway route and it might pick up  
25 some gas in the areas explored up around Nenana.

1 Those are the two possibilities.

2 It's a half billion dollar  
3 commitment, or they don't build the gas line at  
4 all, which is a possibility. It may get delayed  
5 sometime into the future. All those things are  
6 speculation and everything. We reach a point  
7 after 15 years where it doesn't matter what  
8 anybody else does, so it becomes irrelevant to  
9 us after our financing is over and after we pay  
10 off our project in 15 to 20 years.

11 JOEL GROVES: To go back to the  
12 gas line that's been talked about from the  
13 existing network in southcentral up to  
14 Glennallen, that's been predicated on the  
15 assumption that the old Alaska pipeline would be  
16 coming down, if I'm recalling correctly.

17 CASSIE THOMAS: I wasn't talking  
18 about a gas line; I was talking about an  
19 electric connection.

20 JOEL GROVES: That was looked at  
21 in like the mid '90s. I haven't heard that line  
22 being talked about again.

23 CASSIE THOMAS: I thought I read  
24 something about an electric connection.

25 EARLE AUSMAN: That was cancelled

1 here just a few years ago, that particular line,  
2 and it was determined it was not a good use of  
3 the State's resources and both those projects  
4 were cancelled, and money has been put in other  
5 things that the State needed more than subsidy  
6 to local electrical users.

7 JOEL GROVES: In terms of some  
8 more particulars on the project access, like I  
9 mentioned, would be via a construction trail and  
10 that would be a basically a pioneer trail like a  
11 Cat trail or something pushed up there just to  
12 get access to install the project and then  
13 ongoing operation and maintenance of the  
14 project. The intake we spoke to pretty well.

15 At this point we're talking about  
16 a dam with a siphon located at the natural  
17 outlet of the lake. Until we have done a lot  
18 more studies in terms of what the customer would  
19 need, whether they need power seasonal loads and  
20 whatnot and geotech work, the exact nature of  
21 the intake cannot be determined. Penstock,  
22 we're looking at approximately 10,000 feet of  
23 36-inch combination, HDPE and steel.

24 Head on the project is  
25 approximately 1220 feet gross head, 1140 feet

1 net. Those are based on the existing natural  
2 elevation of the lake. So depending on how much  
3 of that lake ends up being active storage in the  
4 project and where you are in the operating  
5 cycle, that would fluctuate some.

6 Turbine we're looking at two  
7 Pelton wheels at this point. Total power is  
8 20.4 and to 29.4 GWh annual output.  
9 Distribution, as we've spoken, where the  
10 distribution line would go is not entirely  
11 finalized yet, but it would consist of  
12 approximately 2.5 miles of 14.4 three-phase  
13 overhead wire; 2.5 miles would be the  
14 approximate distance to Solomon. In the order  
15 of half a mile, something like that.

16 Project benefits and impacts.  
17 Air quality, obviously would be displacing  
18 existing fossil fuel generation. If our  
19 customers, Copper Valley Electric or Alyeska, it  
20 would improve the air quality to Glennallen or  
21 Valdez. We would have improved access to  
22 Allison Valleys. It's a really beautiful spot  
23 and what we're expecting at this point is we  
24 would have nonmotorized access up to  
25 the -- along the access trail for the public to

1 get up in the valley. The exact nature of that  
2 access has not been determined yet. That would  
3 depend on numerous issues with Green Power and  
4 the State, et cetera. That would provide access  
5 for skiing, hiking, hunting, kayaking. All  
6 sorts of fun stuff.

7 Another possible benefit to the  
8 project is fire protection to the terminal.  
9 They're currently looking at replacing the salt  
10 water pumps with new access for fire protection.  
11 We're going to have approximately 45 CFS of  
12 water right across the creek. It's an apparent  
13 benefit and we haven't discussed it with Alyeska  
14 yet, but they could have significant quantities  
15 of fire water at the flip of a switch.

16 In terms of project aesthetics,  
17 most of it wouldn't be visible from the air.  
18 From Dayville Road or looking across the Port of  
19 Valdez from the city of Valdez all that you will  
20 be able to see is maybe a little bit of  
21 penstock, if you have a sharp eye a little bit  
22 of the powerhouse. Everything else would be out  
23 of sight. The project is going to be located  
24 between the existing marine terminal and Solomon  
25 Gulch.

1                   Based on existing knowledge that  
2 we have, the powerhouse is not located on a fish  
3 habitat, so there would be no impact to fish  
4 habitat directly. There would be the question  
5 of flows downstream. We see this as being  
6 properly managed, so it would not be an issue.  
7 In terms of other wildlife resources, negligible  
8 impacts to those as well.

9                   CASSIE THOMAS: Do you know if  
10 there's any fish in the lake or nesting birds  
11 that might be affected?

12                   JOEL GROVES: In terms of fish in  
13 the lake, we have no evidence of fish up there.  
14 It's too far up. Nesting birds, I don't have  
15 any information on that. I haven't seen any.  
16 I'm not aware of any.

17                   AMANDA HENRY: You might want to  
18 talk to Fran Mann about that. She's with Fish  
19 and Wildlife.

20                   JOEL GROVES: U.S. Fish and  
21 Wildlife. She was the one that was hopefully  
22 going to be here.

23                   STEVE HOCKING: What was her last  
24 name again?

25                   JOEL GROVES: Mann, M-a-n-n.

1                   AMANDA HENRY: I would say it's  
2 probably likely you're going to have some  
3 nesting water fowl up there, at some of the  
4 higher altitudes nesting water fowl, and they're  
5 going to be covered in the Regulatory Bird Act.

6                   JOEL GROVES: Okay.

7                   EARLE AUSMAN: Habitat up there  
8 is characterized by very steep banks. It's very  
9 narrow and rocky and doesn't have much shallow  
10 water and places for shorebirds to live on.  
11 There may be some that occasionally show up  
12 there. I didn't see any up there. I was there  
13 when it should have been the nesting season up  
14 there. I went everyplace along the shore and up  
15 across the delta and I saw not a single bird.

16                   We were doing our work with an  
17 airplane and moving around and we should have  
18 caused them to move or get up, if there had been  
19 any. So it doesn't look like, if there are  
20 birds up there, which there may be, there aren't  
21 going to be very many up there.

22                   JOEL GROVES: Moving on. In  
23 terms of long-term benefits to the communities  
24 of Valdez and Glennallen. There would be an  
25 increased sustainable energy capacity in the

1 region, therefore, decreased dependence on oil,  
2 and the price thereof and long-term supply  
3 issues. There would also be affordable power  
4 available to the region after the oil pipeline  
5 is gone. In the really long term, 25, 50, 100  
6 years out, the pipeline will be gone and a  
7 project like this will be there happily humming  
8 away producing power.

9                   There are real benefits to the  
10 communities in the region. The winter capacity  
11 on this project can augment Solomon Gulch. The  
12 long term and short term will be decreased  
13 dependence on relying on the thermal plans that  
14 they have.

15                   A little bit of background on  
16 Green Power. These are some of the other  
17 projects that the principals have worked on in  
18 the state. They range in size from the dam in  
19 Chignik up to, I think the big one on here,  
20 Snettisham, which is 85 megawatts out of Juneau.  
21 A lot of these have similar characteristics of  
22 Allison. We have pretty much done everything  
23 from conceptualization and feasibility studies  
24 on a lot of hydros around the state. We've done  
25 it before.

1                   DAVID AUSMAN:  And ownership.

2                   JOEL GROVES:  We also own -- the  
3 project principals own the McRoberts hydro out  
4 of Palmer and that's been operating for 15  
5 years.

6                   The time lines in the FERC  
7 process, probably construction in 2009 or 2010  
8 and have it on-line -- one season construction  
9 for the project and have it on-line at the end  
10 of the summer and that would be '09, '10 time  
11 frame.

12                   Here are some more pictures  
13 describing the project.  Here is the lake up  
14 here.  You can see the side walls are very steep  
15 on the lake, one-to-one slopes coming down the  
16 mountains.  Those are active slide areas, so  
17 there's limited vegetation up there.  And the  
18 habitat along the front edge of the lake where  
19 we spent quite a bit of time doing the field  
20 work, it's rocky, drops off very quickly and  
21 there's pretty marginal habitat there.

22                   This whole part of the valley is  
23 tundra and scrub.  As the creek starts dropping  
24 down into that little canyon here and cascading  
25 into this area, you get into basically brush,

1 alders, whatnot, salmonberries, et cetera, et  
2 cetera. Pretty typical vegetation for coastal  
3 southcentral. This is a closer aerial view of  
4 the lake. Again, a better shot of the side  
5 slopes.

6 DAVID AUSMAN: This was about a  
7 month ago?

8 JOEL GROVES: Yeah. These shots  
9 are from July 15th of this year.

10 DAVID AUSMAN: There was ice on  
11 the lake at that time.

12 JOEL GROVES: You can see the ice  
13 on the lake. We also have aerial imagery of the  
14 lake in mid-June where the ice is still covering  
15 the lake. The entire lake is still locked up in  
16 ice. That's a month before this picture. This  
17 is another oblique aerial view with a little  
18 mock-up that's superimposed on key project  
19 features.

20 This is the line for -- the  
21 Alyeska property line. This is State land going  
22 down this way. This right here is the existing  
23 Alyeska access trail that comes around on the  
24 perimeter of their property. This is the  
25 proposed access route we would have. This would

1 be to traverse their property. The worst case  
2 scenario if they refuse is we would build a  
3 parallel road on State land around their  
4 property. I see it as not very likely we would  
5 have to do that, but that would be the worst  
6 case. The red lines are proposed transmission  
7 lines. The blue line is proposed penstock.

8 STEVE HOCKING: Joel, where is  
9 the buried pipeline?

10 JOEL GROVES: The buried pipeline  
11 is mostly off the map. This is the TAPS  
12 right-of-way.

13 EARLE AUSMAN: Show them the  
14 parking lot where we parked.

15 JOEL GROVES: This is where we  
16 parked for those of us on the site. I think the  
17 gate we had to step around is right before the  
18 TAPS right-of-way. We walked up right in here  
19 and hiked back in through here and we were  
20 looking at this area right there. I think  
21 that's the big tree. Similar view, same project  
22 features shown.

23 This one is looking up the  
24 canyon, more or less looking south. This is  
25 that same access trail coming through. This is

1 the TAPS right-of-way along the bottom of the  
2 screen here, and then again this would be the  
3 proposed access road coming in. That is that  
4 same tree that people on the site visit were  
5 standing underneath, and then everything else I  
6 think is probably self-explanatory on there.  
7 This is a view from the ground up at just  
8 downstream of the lake.

9 The lake is in here and this is  
10 the lake flowing down and going into the canyon.  
11 It's kind of hard to get a sense of scale, but  
12 if you were a person standing down by the lake,  
13 you would be about the size of a rock.

14 DAVID AUSMAN: Boulders were  
15 about the size of small cars.

16 JOEL GROVES: Some of the bigger  
17 boulders are house-size or motor home-size,  
18 something like that. It's pretty rough terrain.  
19 The vegetation is mostly tundra. You've got  
20 scrub brush you see in there. It's pretty open  
21 up there.

22 And then this is an aerial view  
23 of the mock-up of the largest dam that we would  
24 be considering, roughly a 20-foot dam and what  
25 the reservoir would look like. I tossed the

1 access trail and penstock on there to see what  
2 those might look like. This is roughly a  
3 20-foot dam in there. This would be, you know,  
4 a fairly small dam, I guess. And this is a view  
5 from that access trail on the Alyeska property,  
6 that perimeter trail that wraps around their  
7 property looking west.

8 This is the end of the fence line  
9 that they have on there. The property line is  
10 running maybe a little ways off in the brush  
11 here and then it continues off. There's an old  
12 Cat trail that they put in that's pretty much  
13 overgrown that you can kind of see here.

14 Then it comes in, I think it  
15 comes out to this tree right here. This is the  
16 tree that we hiked in to. So the powerhouse  
17 would be just upstream of this tree, somewhere  
18 in this area. The penstock would be hidden in  
19 the brush coming down here off the hill. You  
20 have the access road coming off this way. This  
21 is from the general vicinity of the proposed  
22 powerhouse. This is what the creek looks like.  
23 Basically a cascading stream at this point.

24 This was a picture taken from our  
25 site visit yesterday. General gradient in the

1 creek is on the order of 15 percent in the areas  
2 we were able to see. As you can see from the  
3 rocks, there's not a lot of small graded  
4 material in there. It's large rocks, pretty  
5 rough-looking rocks, and very fast-moving water.

6 EARLE AUSMAN: What would you  
7 estimate the width of that, roughly, at this  
8 time when we're looking at it? Twenty-five or  
9 30 feet?

10 JOEL GROVES: That's what I'm  
11 thinking, yeah.

12 EARLE AUSMAN: That would give  
13 you a sense of scale of the rocks there too.

14 DAVID AUSMAN: We might mention  
15 that at the time we went and did our field visit  
16 there was a lot of pink salmon going in and  
17 spawning in the base of the stream. They were  
18 all over the place. But when we came up to this  
19 location, we didn't see any at all.

20 JOEL GROVES: At the mouth of the  
21 creek by the Dayville Road there's more fish  
22 than water.

23 DAVID AUSMAN: Slight  
24 exaggeration, but not far off. More odor than  
25 air.

1 JOEL GROVES: And that's our  
2 presentation. Do you have any questions? Feel  
3 free.

4 CASSIE THOMAS: What kind of  
5 instream flow releases into the bypass reach  
6 have you thought about? Have you done flow  
7 studies and have you thought about doing number  
8 of releases?

9 JOEL GROVES: At this point we  
10 haven't done any flow studies on that. In terms  
11 of increasing flows in the bypass reach, we  
12 really haven't made any studies on that. It's  
13 sufficient for about any required instream  
14 flows.

15 EARLE AUSMAN: There is a  
16 requirement, is there not, for instream flows of  
17 two CFS by DNR?

18 JOEL GROVES: Alyeska has an  
19 existing water use permit and existing water on  
20 the creek below our powerhouse. As part of  
21 their permit, they do have a requirement for two  
22 CFS at that point.

23 CASSIE THOMAS: So you have that?

24 JOEL GROVES: Yeah. Based on the  
25 basin area, we would have two CFS based on that.

1 Downstream of our project we would have far more  
2 than two CFS, when we're operating anyway.

3 CASSIE THOMAS: What kind of  
4 existing recreation do you have both in the  
5 powerhouse location and up in the valley? Do  
6 you know?

7 JOEL GROVES: Up in the valley  
8 it's limited because of the difficult access. I  
9 talked to one ski guide who actually does tours  
10 up there in the wintertime for backcountry  
11 skiing. He'll take up four or five parties.

12 CASSIE THOMAS: So it's not so  
13 avalanche prone that you can't get in there in  
14 the winter?

15 JOEL GROVES: If you know what  
16 you're doing, probably not.

17 CASSIE THOMAS: Do you know who  
18 that is?

19 JOEL GROVES: It is Matt Kinney.  
20 I can get you his contact information. And down  
21 below, because of the proximity to the marine  
22 terminal, they restrict access to the terminal.  
23 I'm sure you have some people walking in and  
24 hiking around. There's some access, but there  
25 aren't any existing trails down there that we

1 were aware of. It's not easy going in there.  
2 Talking to people, the summertime recreation  
3 it's pretty minimal.

4 STEVE HOCKING: And so Matt  
5 Kinney, he takes folks up there for what?

6 JOEL GROVES: Just backcountry  
7 skiing, just recreational, go off and play in  
8 the mountains.

9 DAVID AUSMAN: Is it Matt Kinney?

10 JOEL GROVES: It's K-i-n-n-e-y.

11 CASSIE THOMAS: There's a lot of  
12 interest in telemark skiing. It's a real mecca  
13 for telemark skiing.

14 STEVE HOCKING: What do you mean  
15 by telemark?

16 CASSIE THOMAS: Telemark skiing  
17 is a form of skiing with a free heel, which is  
18 pretty popular among backcountry skiers that  
19 don't go to a developed ski area. You can go up  
20 something really steep, take the skis off and  
21 then ski down by doing telemark turning with  
22 your knees bent. Unlike downhill skiing where  
23 you're bolted to the ski, you can go uphill  
24 skiing. You're usually skiing with downhill ski  
25 equipment, but you're brought up to the top and

1 left there.

2 STEVE HOCKING: So if they had a  
3 permanent access up there via new trail, you  
4 think it would be heavily used for that?

5 CASSIE THOMAS: I would guess it  
6 would be really popular. My understanding is  
7 there aren't that many safe places where a  
8 telemark skier can safely climb up and ski down  
9 without risking avalanche danger. Who knows.  
10 It varies a lot with your snow conditions.

11 JOEL GROVES: The side walls  
12 along the lake are basically avalanches.  
13 There's probably some good terrain below the  
14 lake outlet, and also on the face along Port  
15 Valdez there's probably some good areas too.

16 CASSIE THOMAS: That ridge where  
17 you're going to bring the penstock down might be  
18 a safer place because it's not in a bowl as  
19 much.

20 STEVE HOCKING: What I'd like to  
21 do is go over the major milestones here, because  
22 we skipped over that. What we typically do  
23 during our scoping meetings is go resource by  
24 resource. Since we have four of you guys here  
25 today, we will just kind of open it up to

1       whatever you have to say in terms of issues or  
2       concerns or any additional information you want  
3       to provide.

4                       I have a number of questions that  
5       I would like to ask. But, first, let's go ahead  
6       and go over these major milestones.

7                       Green Power Development filed  
8       their NOI and PAD. NOI is notice of intent to  
9       file a license application. PAD is the  
10      pre-application document. You should have a  
11      copy in your handouts. Filed that in May.  
12      We're doing scoping this week.

13                      The next phase in the ILP, the  
14      integrated licensing process, is the study  
15      development process. That really starts today  
16      and will run through about March of next year  
17      with a Commission-approved study plan. First  
18      study season will be summer of '06 and second  
19      study season will be summer of '07, if it's  
20      needed.

21                      Green Power Development will file  
22      a licensing -- preliminary licensing proposal on  
23      or about January of '08. That's akin to a draft  
24      license application. And then their final  
25      license application around June of '08. Those

1 are the major prefiling milestones. By  
2 prefiling, I mean before an application is filed  
3 with the Commission. After an application is  
4 filed, again, license application filed about  
5 June 2008, FERC would issue what we call our REA  
6 notice, which is our ready for environmental  
7 analysis notice, about September of '08.

8 That means we have all the  
9 information we need to do our NEPA analysis and  
10 we put together a NEPA document about March of  
11 '09, with a licensing order about September of  
12 '09. So you can see that's kind of the  
13 projected time line. And all these dates and  
14 more are all the specific steps in the ILP  
15 process.

16 One is called the process plan,  
17 which is in the back of the scoping document,  
18 scoping document 1. So in that process plan you  
19 can see all the dates for every milestone that  
20 needs to be accomplished towards licensing. And  
21 that helps everybody set their schedule and  
22 develop a plan of action and staffing, those  
23 sorts of things.

24 So, no questions about the major  
25 milestones? All right. Let's go ahead and just

1 continue with any questions or issues that you  
2 have on the project in general. I mean, sounds  
3 like we kind of covered recreation. Right now  
4 they're proposing pretty much access trail,  
5 pedestrian only, motorized to be determined  
6 later possibly. No other recreation facilities  
7 proposed at this point.

8 Does anybody want to see any  
9 other recreation facilities? And I wanted to  
10 ask you, are there any National Park Service  
11 lands?

12 CASSIE THOMAS: You're wondering  
13 why I'm here. We consult on hydro projects  
14 under the Outdoor Act and National Trail System  
15 Act because we represent the public interest in  
16 outdoor recreation anywhere in the country. We  
17 don't get involved in every project. Especially  
18 projects like this, we often get involved if  
19 there's a potential recreation enhancement.

20 A lot of the projects are out in  
21 the middle of nowhere and hard to get to. The  
22 nearest national park is Wrangell-St. Elias,  
23 which is up the Copper River Valley, some  
24 distance from Valdez.

25 STEVE HOCKING: All right. I

1 didn't have any other questions on recreation at  
2 this point. Any thoughts on recreation studies?  
3 Anything preliminary that you guys are thinking  
4 about at this point in terms of a survey or  
5 anything like that?

6 JOEL GROVES: I don't think so.  
7 Given the nature of the trail itself, it's a  
8 pretty significant benefit considering that  
9 there's very little access to the high country.

10 DAVID AUSMAN: And it will be  
11 dependent on the form of access that we get,  
12 whether it's across State land or goes through  
13 the Alyeska property.

14 JOEL GROVES: Right.

15 DAVID AUSMAN: Alyeska controls  
16 access to their property. They have legitimate  
17 security concerns about access to the property.  
18 However, they have spoke with us and we spoke  
19 with Copper Valley Electric who has their access  
20 along Alyeska's right-of-ways, and they seem to  
21 be pretty open to people going in and being able  
22 to use that property, at least at this time.

23 JOEL GROVES: As close as it is  
24 to the marine terminal, that may or may not be  
25 the case.

1                   DAVID AUSMAN: Required  
2                   permitting for motorized access on the property.  
3                   The access route that goes up Solomon Gulch and  
4                   crosses the right-of-way, they allow people to  
5                   go ahead and hike in that area.

6                   STEVE HOCKING: Alyeska?

7                   DAVID AUSMAN: Alyeska does.

8                   STEVE HOCKING: But when it comes  
9                   to motorized, you have to get a permit?

10                  DAVID AUSMAN: That's correct.

11                  STEVE HOCKING: In order to keep  
12                  it pedestrian only, you would put up gates, a  
13                  gate?

14                  DAVID AUSMAN: A gate. And the  
15                  access trails that are on Alyeska's property  
16                  right now are gated.

17                  JOEL GROVES: Correct.

18                  STEVE HOCKING: Okay. Anything  
19                  else on recreation?

20                  CASSIE THOMAS: A couple things  
21                  that are related to it which has to do with  
22                  aesthetics. If the lake is operated with a  
23                  fairly large fluctuation, we would be interested  
24                  in the aesthetics. I guess we would be  
25                  interested in knowing about impacts of hunting,

1 and we start to overlap with other resource  
2 agencies. But goat disturbance, things like  
3 that.

4 EARLE AUSMAN: Generally  
5 speaking, once the snowpack has left, the lake  
6 will be recharged back to a considerable portion  
7 of its height. So the time at which the lake  
8 would be drawn down would be in the very last of  
9 the winter and beginning of spring before the  
10 heavy snowmelt occurred.

11 So from an aesthetic viewpoint,  
12 if you were skiing on skis you wouldn't notice  
13 it. And if you were there by the time the  
14 vegetation came out, it would look pretty. It  
15 wouldn't be drawn down very far, so it wouldn't  
16 be near the problem as one might imagine because  
17 of the operation of the reservoir.

18 CASSIE THOMAS: So you don't  
19 think there would be a bathtub ring that would  
20 be visible in the summer months?

21 EARLE AUSMAN: The lake itself  
22 has a rim, it's own rim, and it also doesn't  
23 have a lot of vegetation around that rim.

24 JOEL GROVES: It would be similar  
25 to Solomon Gulch and the aesthetics of that lake

1 also. I don't think that that has anything to  
2 impact on recreational areas up there.

3 STEVE HOCKING: So your primary  
4 concern would be in the summertime.

5 CASSIE THOMAS: I think under  
6 snowcover you don't see a visual impact. Spring  
7 is not a time that there would be a lot of  
8 visitors up there. It's pretty hard to get up  
9 anywhere like that in the thaw.

10 JOEL GROVES: Keep in mind that  
11 by the time the snow is gone you're in June,  
12 July. At that point there's so much runoff the  
13 lake would not be drawn down as extensively.

14 CASSIE THOMAS: Right, right.

15 STEVE HOCKING: Anything as far  
16 as aesthetics studies?

17 CASSIE THOMAS: I guess it was in  
18 the PAD, but there was some mention that you  
19 would be looking at the visual effect of the  
20 penstock itself, that would depend on whether  
21 it's buried and so on whether you can see it out  
22 in the harbor.

23 JOEL GROVES: It's entirely  
24 likely it would be buried inside the tree line,  
25 be associated with the access trail. You can

1 see the Solomon Gulch penstock and this one will  
2 be buried inside the tree line.

3 AMANDA HENRY: How wide of a cut  
4 into the vegetation do you have to have to place  
5 the penstock if it's above ground?

6 EARLE AUSMAN: What was the  
7 question, please?

8 AMANDA HENRY: How wide of a cut  
9 in the vegetation?

10 EARLE AUSMAN: Probably in the  
11 order of 25, 30 feet.

12 AMANDA HENRY: To get equipment  
13 there?

14 EARLE AUSMAN: It would be like  
15 an access trail. If you look at down -- this is  
16 Solomon Gulch. They have two penstocks and  
17 theirs are 48-inch in diameter, and they have  
18 cut out a substantially wider area because they  
19 have the penstocks separated from one another.

20 In our case we have one penstock  
21 and a smaller diameter. It won't be the visual  
22 impact of theirs by a long shot. It will be a  
23 lot cleaner. Their penstock is straight in the  
24 line. Ours go from side to side and moves  
25 around because of the terrain. So it's going to

1 disappear on you. You'll see a little piece of  
2 it from one direction. You won't see all of it  
3 at any one time unless you're in an airplane.  
4 You would have to be flying on over that area to  
5 see it.

6 AMANDA HENRY: Would you be  
7 maintaining that cut, then, as the years go by  
8 with, say, clear-cutting?

9 EARLE AUSMAN: Probably not.  
10 It's probably in rock. We probably won't. In  
11 case we have to bring some heavy equipment up in  
12 there, and I strongly suspect it will be all  
13 rock in there, it will be a small rock cut.  
14 That's a general case. Except for up in the  
15 flat areas it may be semi-bare road.

16 CASSIE THOMAS: But that's where  
17 the trail would be?

18 EARLE AUSMAN: The trail would  
19 also be up rock. Get you up in the high country  
20 and go up in the wintertime, it might get you in  
21 a little earlier skiing across the lake and go  
22 up to the glacier.

23 DAVID AUSMAN: Apparently at  
24 Solomon Gulch people have been packing up their  
25 kayaks, carrying them up.

1                   CASSIE THOMAS: It's hard to  
2 think that anyone wants to carry a hard-shell  
3 kayak that far.

4                   EARLE AUSMAN: They're 600 feet  
5 and we're 1300.

6                   JOEL GROVES: Another thing to  
7 keep in mind is that this is an aerial shot. If  
8 you're on the ground in Valdez looking across  
9 the water, the only spot where you're going to  
10 potentially see the penstock is down this ridge.  
11 After that it's going to wrap around the ridge  
12 and will be out of view. You have this huge  
13 industrial complex that extends for a mile or so  
14 that way.

15                   One thing we noticed when we were  
16 here is Alyeska brushed all of this area right  
17 here, a huge brown -- where it's taken out  
18 dozens of acres of terrain that they have  
19 brushed for whatever reasons. You're talking  
20 about a little stripe of pipe and/or road up  
21 here.

22                   DAVID AUSMAN: Perhaps you might  
23 be able to see or might not.

24                   STEVE HOCKING: How about the  
25 access trail? Would any of the maps -- do you

1 show where the proposed access trail would go?

2 I've never seen that.

3 JOEL GROVES: At this point in  
4 time we're proposing that the trail and penstock  
5 would overlap to the extent technically  
6 possible.

7 DAVID AUSMAN: In some areas the  
8 trail and penstock would coincide. The reason  
9 for that is you need a gradient that you'll be  
10 able to climb.

11 EARLE AUSMAN: The penstock will  
12 be headed straight down the hill and will be the  
13 only thing there. A trail, not a road. The  
14 trail will go up alongside everything.

15 STEVE HOCKING: At this stage can  
16 you make your best guesstimate as to where the  
17 trail will go?

18 EARLE AUSMAN: We can't do that  
19 yet. This is part of the detailed engineering  
20 and planning on this particular project.

21 JOEL GROVES: Another comparison.  
22 This road right here that you can barely see in  
23 the trees is probably 12 to 20 feet.

24 DAVID AUSMAN: It's a two-lane  
25 wide trail with 12-foot lanes. It's been

1 brushed on either side probably back 15, 20 feet  
2 and, in fact, Alyeska pipeline has a hydroax  
3 parked in their parking lot over there which  
4 apparently is used for brushing on the property.

5 JOEL GROVES: You can see how the  
6 scar left by that road is pretty minor.

7 EARLE AUSMAN: And that's an  
8 aerial view.

9 JOEL GROVES: And that road is  
10 larger than what our trail would look like.  
11 This is that road right there. So you can see,  
12 you know, our trail would be something smaller  
13 than that. That has a pretty negligible  
14 aesthetic impact.

15 CASSIE THOMAS: Is there anywhere  
16 where the public can go now where you can see  
17 cascades or falls from the creek itself? Is it  
18 visible across in Valdez itself?

19 EARLE AUSMAN: We don't have any  
20 falls there. Not like the beautiful falls  
21 scattered throughout the valley in Valdez. If  
22 you got up there at the top and looked across to  
23 Valdez, they're so far away they become  
24 hard-pressed to see them. It's just too much  
25 distance.

1                   JOEL GROVES:  There are no falls,  
2                   just a series of cascades over rocks.

3                   CASSIE THOMAS:  I was trying to  
4                   get a sense.  You see the white.

5                   DAVID AUSMAN:  You may be able to  
6                   see the white in places from the bay.

7                   JOEL GROVES:  Coming down through  
8                   here maybe.

9                   EARLE AUSMAN:  We won't change  
10                  that, at least down below the powerhouse.

11                  JOEL GROVES:  Right.  Anything  
12                  else on aesthetics?

13                  CASSIE THOMAS:  I don't think so.  
14                  Thanks.

15                  STEVE HOCKING:  Okay.  How about  
16                  cultural?  Any concerns regarding cultural  
17                  resources?

18                  CASSIE THOMAS:  Have there been  
19                  any surveys?  Did Alyeska have to survey that  
20                  area when the terminal was built?

21                  JOEL GROVES:  I mean, the only  
22                  known cultural resource is Fort Liscum, which  
23                  was plowed under by the terminal.

24                  AMANDA HENRY:  That was the  
25                  survey activity.

1                   STEVE HOCKING: Had an adverse  
2 effect.

3                   JOEL GROVES: The most important  
4 asset of the State is the marine terminal right  
5 there. We'll be sure to protect that.

6                   STEVE HOCKING: Any plans to do a  
7 basic cultural resources inventory, like a  
8 walk-through?

9                   EARLE AUSMAN: I wouldn't think  
10 so. I think we might consider talking to an  
11 archaeologist or something like that. The  
12 probabilities of finding anything useful for  
13 Native culture are very limited because of the  
14 height of it, the difficult access and the fact  
15 that it's not really good resource area.

16                   The resource area is in the  
17 bottom of the streams and we're not even there.  
18 That's where Alyeska -- furthermore, since the  
19 sea has been rising for a long period of time,  
20 the culture would have been sea level. And  
21 Alyeska has already cleared all that area.  
22 Since we're not doing anything down there, it  
23 shouldn't be a problem for us.

24                   We will talk to Native tribes to  
25 see whether they think there's any problem or

1 anything else like that. If they say there is,  
2 then we'll probably go up and take a good look  
3 at it.

4 AMANDA HENRY: I would suggest  
5 talking to SHPO and have them do an  
6 investigation of their surveys and see if  
7 they've got anything.

8 STEVE HOCKING: They're on the  
9 mailing list. Have you all called the SHPO?

10 JOEL GROVES: I've talked to them  
11 and I haven't been able to find a point of  
12 contact for this project.

13 EARLE AUSMAN: Alyeska has  
14 probably spent more money on cultural resources  
15 than anybody in the whole United States ever did  
16 and cleared the entire pipeline and terminals  
17 and everything like that. It would be illogical  
18 for us tiny fleas on this monster elephant to  
19 have any effect at all compared to Alyeska. But  
20 we're going to check into it.

21 STEVE HOCKING: You're not aware  
22 of anything in terms of cultural interest or  
23 tribal interests or traditional tribal property  
24 or anything?

25 CASSIE THOMAS: No. That doesn't

1 mean they don't exist, because I'm not an expert  
2 in that area at all.

3 STEVE HOCKING: Okay. All right.  
4 Anything else on cultural then?

5 Moving right along. Wildlife?

6 JIM FERGUSON: Nothing we didn't  
7 discuss last night.

8 STEVE HOCKING: Last night we  
9 talked about some of this, and there didn't  
10 appear to be any particular concern regarding  
11 wildlife disturbance or wildlife. Bear safety  
12 was an issue in terms of construction and there  
13 are goats up there, but I talked to Dennis  
14 Gnath -- I was talking with him asking him if he  
15 thought there would need to be a calving season  
16 avoidance, construction avoiding calving season  
17 or something like that. And he didn't indicate  
18 that there would be, that that would be needed,  
19 or that there was any real concern with wildlife  
20 and no threatened endangered species.

21 JOEL GROVES: Dennis Gnath is  
22 from the joint pipeline office in DNR.

23 STEVE HOCKING: So, are you aware  
24 of anything that needs --

25 CASSIE THOMAS: The bird issue,

1 but there are margins of the lake.

2 AMANDA HENRY: Right. There  
3 definitely looks like some wetland type areas  
4 and you've got all kind of alpine passerines  
5 that that scrub may not look like much to us,  
6 but it's perfect habitat for them. You also do  
7 have a bird nesting window that Fran will make  
8 you aware of. I don't know what it is down  
9 there. Up here it's April 15 to July 15, is  
10 what we put the restriction on for clearing.

11 CASSIE THOMAS: You might have  
12 dippers in the stream itself. That's a good  
13 habitat.

14 JOEL GROVES: Are they in water  
15 that's moving that fast?

16 CASSIE THOMAS: They walk under  
17 water in cascades. That's where they feed, and  
18 they nest in steeply incised areas. Do mud  
19 nests on the wall.

20 EARLE AUSMAN: I can tell you  
21 right now they do have dippers down below the  
22 powerhouse. That's where I saw one. But  
23 they're probably not very prevalent.

24 STEVE HOCKING: What was the  
25 other bird you mentioned?

1                   AMANDA HENRY: I was thinking of  
2 alpine passerines, alpine sunbird. It's  
3 definitely a good niche for them. Flycatchers.

4                   STEVE HOCKING: Nobody is aware  
5 of any surveys or anything like that having been  
6 done?

7                   AMANDA HENRY: If there have been  
8 any, Fran would be most aware of any bird  
9 surveys up there.

10                  CASSIE THOMAS: Are there any  
11 tall trees near the powerhouse area that could  
12 be bald eagle nests, because that would be  
13 something Fish and Wildlife will want you to  
14 check.

15                  AMANDA HENRY: Steepness of the  
16 walls also could be habitat for peregrines.

17                  EARLE AUSMAN: What did you say?

18                  AMANDA HENRY: Steepness of the  
19 canyon wall area can be good habitat for  
20 peregrine falcons.

21                  STEVE HOCKING: Are they often  
22 that high up?

23                  AMANDA HENRY: They can be. If  
24 there's birds, they'll be there.

25                  JOEL GROVES: Are they indigenous

1 to that region?

2 EARLE AUSMAN: Are you aware of  
3 anything along the other canyons along the TAPS  
4 route going up towards Thompson Pass?  
5 Peregrines, have you seen any up there? I know  
6 there's bald eagles around the mouth of the  
7 water.

8 AMANDA HENRY: If you've got  
9 salmon down in that creek, the eagles are going  
10 to be there.

11 JOEL GROVES: Maybe they were  
12 sick of pinks by then, but we only --

13 CASSIE THOMAS: Fledging has  
14 happened, so eagles have left their nests for  
15 the year, but if you've got tall trees near a  
16 creek with salmon or a tall tree near a green  
17 area.

18 EARLE AUSMAN: We're quite a way  
19 from the tidewater.

20 AMANDA HENRY: What's the buffer?  
21 A half mile? I think the buffer is about a half  
22 mile from a nest.

23 CASSIE THOMAS: Fish and Wildlife  
24 will be interested in electrocution risk in  
25 terms of your power line.

1                                 STEVE HOCKING: Anything else for  
2 wildlife?

3                                 CASSIE THOMAS: Bear denning  
4 survey. You probably did that last night.

5                                 STEVE HOCKING: All right. Let's  
6 just take a ten-minute break and then we just  
7 need to talk about aquatics and water resources  
8 and then we can go over -- I've got a question  
9 about CSMA, and we can kind of quickly go over  
10 study development process.

11                                Make sure you all are aware that  
12 studies are due 30 days from yesterday and a few  
13 other things and we can probably close it up.  
14 So it's just about 3:00, so how about like 3:10  
15 coming back.

16                                (Break taken.)

17                                STEVE HOCKING: Just to check in.  
18 Is this format working for you guys? Jim,  
19 Cassie, Amanda, Keven?

20                                KEVEN KLEWENO: I've just been  
21 watching you. I'm watching you. I'm learning  
22 from you.

23                                STEVE HOCKING: All right. We're  
24 keeping it pretty loose. Okay. Why don't we go  
25 ahead and we'll talk about water resources next,

1 and then we'll talk about aquatics and fish and  
2 then any geology soils type concerns. Give you  
3 all a chance to voice whatever issues you might  
4 have.

5 So as far as water resources go,  
6 water quality, any issues or concerns?

7 JIM FERGUSON: We spent a lot of  
8 time on that last night.

9 EARLE AUSMAN: Could I add some  
10 information, please? One of the things we  
11 discussed last night, for those of you who  
12 weren't there, was the question of water  
13 temperature. And as of now with the information  
14 we have, we're contemplating taking the water  
15 off near the surface of the lake and essentially  
16 preparing the same temperatures that are  
17 coexistent right now downstream as far as  
18 aquatic life is concerned.

19 So we're not taking the water  
20 from deep in the lake and where it would be  
21 colder, for example, in the summertime and  
22 changing the life cycle of the fish and things  
23 like that. So that was one of the important  
24 issues that always comes up and needs to be  
25 dealt with, and we have already considered that

1 in our analysis of the project.

2 STEVE HOCKING: Earle, the intake  
3 will be about 70 feet down?

4 EARLE AUSMAN: The intake will be  
5 just below the surface of the lake. The lake  
6 may be 70 feet down.

7 STEVE HOCKING: You say you're  
8 going to draw the lake down; you're going to  
9 draw the lake down 70 feet?

10 EARLE AUSMAN: It would go up and  
11 down with the lake, floating.

12 STEVE HOCKING: So not a fixed  
13 intake on the bottom of the lake?

14 EARLE AUSMAN: Right. Because of  
15 this problem, because of the problem of  
16 temperature and stuff like that, we now want to  
17 build a large structure with a series of ports  
18 in it and have to control the temperatures with  
19 those ports and things with valves and things.  
20 It's complicated, expensive and not as  
21 effective, we think.

22 STEVE HOCKING: Can you just run  
23 us quickly through the -- a flexible tube. How  
24 would that work?

25 EARLE AUSMAN: You bend it with a

1 piece of flexible pipeline. The pipeline would  
2 connect to your intake pipe. Let's say we went  
3 through a cut or a mouth of a microtunnel. It's  
4 small, not dug by human beings, but dug by big  
5 rotary machines. Could also incorporate a  
6 siphon.

7                   There would be enough pipe to  
8 float on the top of the lake and the top of it  
9 is flexible and will simply -- the intake would  
10 be mounted on the float. It would be below the  
11 float and the float would go up and down as the  
12 lake went up and down.

13                   STEVE HOCKING: So it would have  
14 to be out a certain distance from the shore.

15                   EARLE AUSMAN: It would be a  
16 certain distance from the shore because of the  
17 depth of the water.

18                   STEVE HOCKING: How would that  
19 work during --

20                   EARLE AUSMAN: The intake would  
21 be below the ice level. The pipe would be at  
22 the ice level. That would be comprised of water  
23 thickened slightly from the surface of the ice,  
24 just like a stream stays liquid running through  
25 snow or ice banks. Polyethylene is a very good

1 insulator and it's going to be quite thick. It  
2 would in the order of inch and a half wall  
3 thickness. It won't transfer temperature level.

4 DAVID AUSMAN: So this is one  
5 proposed alternative we have; this is not  
6 necessarily the only way it's going to be built.  
7 The other thing I might mention is with the  
8 Solomon Gulch they don't have this sort of  
9 intake. They have an intake at the base of the  
10 dam and that's approximately 60-some odd feet  
11 below the surface and they supply the water to  
12 the hatchery.

13 STEVE HOCKING: I guess I know  
14 that there's a reference to a couple of  
15 temperature or at least one temperature study  
16 where they measured temperature a couple depths.  
17 Was that the '92 Alaska Energy Authority report?

18 JOEL GROVES: I believe it's the  
19 Corps' study.

20 STEVE HOCKING: Do you all  
21 propose to do any checking of temperatures?

22 EARLE AUSMAN: Not if we use the  
23 floating intake. It's not necessary.

24 AMANDA HENRY: How do you ensure  
25 that the intake doesn't get solid? If you've

1 got it floating, it's got to get pushed below  
2 the surface enough as the surface freezes.

3 EARLE AUSMAN: So envision, if  
4 you will, a lake, any lake. Let's take a cold  
5 place where ice gets four feet thick. Envision  
6 this lake where ice gets thick. Let's take the  
7 Yukon River. The water level goes down and the  
8 ice begins to lay along the shore like this and  
9 the ice along the water floats on the ice. It's  
10 mostly in the water, but a small amount sticks  
11 up above the water and floats on the ice.

12 That's what the floating intake  
13 does, it remains below the thickness of the ice  
14 cover. They have very little ice on that  
15 particular lake, so we'll have our margin -- it  
16 will be adjustable between certain feet so we  
17 make sure it doesn't freeze.

18 CASSIE THOMAS: You're up a lot  
19 higher and isn't the temperature of the lake  
20 colder at the top because the warmer water is at  
21 the bottom because it's denser?

22 EARLE AUSMAN: That's true. But  
23 it's still liquid. The water flows out into the  
24 stream from the surface of the lake.

25 DAVID AUSMAN: I think probably

1 our appropriate response at this point  
2 considering the preliminary nature of the  
3 project and the fact that we have numerous  
4 studies to do and look at how to design the  
5 intake structures. We'll design it in such a  
6 way that it would be sensitive to the  
7 environmental issues and water temperature. We  
8 will propose a design that will be functional  
9 and meet those requirements.

10 STEVE HOCKING: Jim, do you think  
11 that it could be an issue if they are  
12 withdrawing water 70 feet down?

13 JIM FERGUSON: I'd have to really  
14 think about that on a seasonal context exactly  
15 what that would mean, but certainly in other  
16 projects I have looked at drawing from the  
17 surface is the preferable way to go if it's at  
18 all possible to do so.

19 KEVEN KLEWENO: Let me add my  
20 experience. I worked for DEC for many years and  
21 I worked on the Solomon Gulch. And they never  
22 had a problem with temperature of the water  
23 incoming into the fish hatchery at the location  
24 where they were getting water out. So it would  
25 be interesting through the study, especially

1 when you're looking at water temperature for  
2 this project, is to really see if there's a  
3 water temperature concern by the time we're  
4 looking at when the salmon are in the lower  
5 reaches.

6 It may be the water temperature  
7 coming out of the lake is quite cold anyway and  
8 it's not really bothering the fish, at least  
9 from the basis of using Solomon Gulch as an  
10 example.

11 STEVE HOCKING: Seems to me to  
12 make the decision floating intake versus  
13 stationary intake you'd have to do the water  
14 temperature profile in the lake, in other words,  
15 to see if you need a floating intake versus a  
16 stationary intake.

17 DAVID AUSMAN: Or use anecdotal  
18 evidence in Solomon Gulch.

19 JIM FERGUSON: I have to think  
20 about that with Solomon because where the water  
21 is returning in there is intertidal essentially  
22 and it's not -- there really isn't good spawning  
23 habitat that's being affected by that project.  
24 So, I mean, putting it in the hatchery, I'm not  
25 sure what they might be doing with it if they

1 have a controlled environment in there.

2 KEVEN KLEWENO: If the water is  
3 too cold, where are they getting warm water to  
4 mix it in?

5 JIM FERGUSON: I don't know. I'm  
6 not sure what they would do. As far as the  
7 habitat is concerned, the two projects are not  
8 analogous.

9 KEVEN KLEWENO: I agree with you  
10 on that. If raising fish in that water that  
11 they have either got to warm that water or  
12 they're using that cold water, so in that aspect  
13 it's somewhat similar.

14 EARLE AUSMAN: One thing that  
15 came up yesterday was with Larry Peltz. They  
16 have concerns about temperature and they've  
17 asked that the tower be put in that has ports in  
18 it that are open and shutable, so they could  
19 vary the temperature coming out of the Cooper  
20 Lake plant. They have ended up with two ports  
21 and they're not very happy with that. I don't  
22 know what the final outcome is going to be.

23 We could be faced with the same  
24 kind of situation if somebody found out that for  
25 some reason or other we were causing a problem

1 with the fish activity downstream of the  
2 powerhouse as a result of our taking the warmer  
3 water in the wintertime from the bottom of the  
4 lake, which is about four centigrades when the  
5 turnover takes place.

6 If we take the natural colder  
7 water that the fish are naturally accustomed to,  
8 over hundreds and hundreds of years, it's  
9 probably better to do that than it is to change  
10 the regime. I think this is what Jim had in  
11 mind.

12 JIM FERGUSON: I think that's  
13 essentially it. What we're doing in Cooper, of  
14 course, other things are going on there. We're  
15 trying to get back into what we think is a  
16 reasonable range of temperatures for spawning  
17 and even more so for taking fish. But that's  
18 complicated. The system is already pretty far  
19 out of whack. They're trying to get it closer  
20 to where it needs to be.

21 STEVE HOCKING: You can't draw a  
22 very good comparison between Cooper and Allison.

23 CASSIE THOMAS: No.

24 AMANDA HENRY: No.

25 KEVEN KLEWENO: No, no.

1                   JIM FERGUSON: But I did find  
2                   that interesting in the discussion last night  
3                   because we never got into a lot of detailed  
4                   conversation. Cassie has been involved with  
5                   this too, about the intake, but they pretty much  
6                   rejected the idea of -- we're talking about up  
7                   to 25, 30 CFS, but they said we're not going to  
8                   entertain that.

9                   JOEL GROVES: This is at Cooper.

10                  EARLE AUSMAN: At where?

11                  JIM FERGUSON: Cooper Landing.

12                  EARLE AUSMAN: We're talking  
13                  about more than that. We're talking about 70.

14                  STEVE HOCKING: Okay. Anything  
15                  else about water quality? We talked somewhat  
16                  last night about torpidity and best management  
17                  practices during construction.

18                  AMANDA HENRY: I guess I would be  
19                  concerned about water quantity in that bypass  
20                  reach for flushing events, and if you're  
21                  reducing the quantity going through there,  
22                  sediment can build up and if you get a big  
23                  rainfall coming in, flowing down those steep  
24                  banks, you're going to put a lot of sediment  
25                  down into that lower reach really fast.

1                   JOEL GROVES: I think with the  
2 existing flow regime in the creek and at this  
3 point the projected flow regime we would have --  
4 you would still be seeing the annual flushing  
5 events in the summer with the peak flows.  
6 You're producing the full quantity of water;  
7 you're still going to see flushing events.

8                   CASSIE THOMAS: You haven't  
9 actually done flow measurement, so you don't  
10 know what the hydrograph looks like, but is that  
11 a pretty flashy system?

12                   JOEL GROVES: The existing  
13 hydrograph data that we have, I think, is -- I  
14 think we just have monthly -- I'd have to go  
15 back and look at that and see how flashy the  
16 stream is. I don't have my --

17                   JIM FERGUSON: I mean, the flow  
18 is -- most flow or almost all flow of the system  
19 is coming out of the lake and there really  
20 aren't any tributaries, so it's probably to some  
21 extent a naturally-regulated flow, but probably  
22 big pulls come in. It's going to come off the  
23 slopes as well.

24                   CASSIE THOMAS: Not base flow if  
25 it's rocky.

1                   JIM FERGUSON:  What I'm thinking  
2                   is there's probably -- I don't know.  I don't  
3                   know the answer.  I'm just guessing there's not  
4                   a whole lot of accretion there.

5                   EARLE AUSMAN:  Based on my  
6                   limited observations around the mouth of the  
7                   lake and some other places like that, you see  
8                   plenty of silt from the glaciers and things like  
9                   that on the rocks and not much -- and no deep  
10                  deposits or anything along the rocky places  
11                  where the water is quiescent and doesn't have  
12                  movement or anything like that down toward the  
13                  mouth of the lake.  And that indicates to me  
14                  that the majority of the material is going to be  
15                  deposited in the head waters of the reservoir  
16                  and not showing up at the bottom of it.

17                  JOEL GROVES:  Yeah.  Walking  
18                  around the creek I saw little to no volumes  
19                  there.

20                  EARLE AUSMAN:  There's isn't a  
21                  lot of soil associated with the bank or anything  
22                  like that.  It's very limited in the amount of  
23                  fine grain material that's involved with these  
24                  rocks and the plants that are growing.  It's not  
25                  muskeg and things like that.

1                   CASSIE THOMAS: Does the lake  
2 have a color?

3                   JOEL GROVES: It's turquoise.

4                   CASSIE THOMAS: So it's got a  
5 glacial color.

6                   STEVE HOCKING: There's been no  
7 D.O. measurements or water temperature that  
8 anybody is aware of?

9                   EARLE AUSMAN: We could take  
10 water measurements, but since we negate their  
11 purpose by taking water off the top of the lake,  
12 it's hard to figure out what you do with them.  
13 You know the water temperature is going to go to  
14 four degrees centigrade at the bottom if the  
15 lake turns over, and it will turn the other way  
16 of course in the summertime.

17                   So you absolutely know that's  
18 going to happen and you know the 32 degrees  
19 Fahrenheit on the surface when it freezes and  
20 the time, so the net result is you have by just  
21 its own nature as good a profile as you're going  
22 to obtain. The lake is about 150 feet deep in  
23 places and we don't intend at the very worst to  
24 go that deep.

25                   So we're not going to take all

1 the volume of the lake. To take the  
2 measurements won't accomplish anything and we'll  
3 just spend significant amounts of money that  
4 will not be very useful, nice to know, but not  
5 very useful for the project.

6 STEVE HOCKING: How much do you  
7 think it would take to do a stratification  
8 survey, temperature survey?

9 EARLE AUSMAN: Because we would  
10 have to do it more than once to be meaningful.

11 JOEL GROVES: Yeah, numerous  
12 times throughout the year in the wintertime go  
13 up and drill into the lake.

14 EARLE AUSMAN: Now, one of the  
15 things we could do is to attach a temperature  
16 reporting device near where our water pressure  
17 gauge is and record the temperature of the water  
18 that's coming out of the lake, and that might be  
19 useful for your fisheries purposes, Jim, and  
20 things like that. It won't change it, but it  
21 might be a useful bit of knowledge, and I don't  
22 think that would be real expensive or a real  
23 problem to get the surveys and try to make  
24 something into them or from them.

25 STEVE HOCKING: That could be

1       accomplished just using a data pod, temperature  
2       pod up there.

3                       EARLE AUSMAN:  Yeah.  Would that  
4       be helpful to you, Jim?

5                       JIM FERGUSON:  Yeah, I think so.

6                       JOEL GROVES:  Then they have  
7       integrated pressure temperature data monitors, I  
8       believe.

9                       STEVE HOCKING:  So you weren't  
10      planning on doing a bathymetric survey?

11                      DAVID AUSMAN:  We have already  
12      done them.

13                      STEVE HOCKING:  You have?

14                      DAVID AUSMAN:  Yeah.  We did one  
15      a month ago.

16                      STEVE HOCKING:  I didn't know  
17      that.  All right.

18                      EARLE AUSMAN:  We were completely  
19      dissatisfied with the information that was  
20      available and/or what the actual storage  
21      capacity of the lake might be.  We're still in  
22      the preliminary stages of reducing data.  We  
23      have an indication, but we don't have the data.  
24      That's why it didn't show up in the PAD.

25                      JOEL GROVES:  We didn't have it

1 by the time it was filed.

2 EARLE AUSMAN: Right.

3 KIM NGUYEN: But you will follow  
4 it up once you have the data compiled?

5 JOEL GROVES: It's something we  
6 have taken a rough look at it, but we haven't  
7 reduced it into a final form.

8 EARLE AUSMAN: We don't want to  
9 publish it.

10 KIM NGUYEN: That's fine.

11 EARLE AUSMAN: We're not ready.

12 KIM NGUYEN: When you're ready,  
13 make sure you do it officially on the record and  
14 not just on the web site. That's considered  
15 unofficial.

16 JOEL GROVES: Yeah, yeah.

17 STEVE HOCKING: Any other water  
18 quality type concerns? Okay. We talked about  
19 fisheries and minimum flow somewhat. Anything  
20 else about fisheries minimum flows?

21 JIM FERGUSON: The only other  
22 thing I can think of -- this is kind of an  
23 add-on to last night and minor -- is that when  
24 you're doing the fish surveys, if you're  
25 actually going out and trying to net fish and

1 capture fish, shock fish, you need a collection  
2 point for Fish and Game. Probably something you  
3 know. That's out of our Anchorage office. The  
4 person who did it just left.

5 You can contact me and I can put  
6 you in touch with them. I don't know if you  
7 want to get into that again, but I hoped to have  
8 our area fish biologist here today, but I think  
9 he ended up going out in the field. I guess we  
10 can talk more about this. I guess it's figuring  
11 out how you want to interact.

12 We can write up what we think  
13 ought to be done for the studies and submit it  
14 in 30 days. But if you want to have discussions  
15 prior to that, we can certainly do that.

16 STEVE HOCKING: On other ILP  
17 projects -- there haven't been a lot that have  
18 gone through the pipeline yet. But there's been  
19 quite a bit of back and forth with agency and  
20 NGO, particularly getting together with an  
21 applicant and sit down and decide who will take  
22 the lead on a particular study and write it up  
23 and draft it and trade drafts back and forth  
24 until they reach consensus and meet all the  
25 seven criteria that FERC requires.

1                   You might want to talk to Green  
2                   Power Development in terms of, I'm thinking of  
3                   submitting this study and would you like to take  
4                   a look at it in draft and give me your comments?  
5                   That has worked pretty well for some of the  
6                   projects that we have. Maybe that's something  
7                   you all can consider doing. Rather than just  
8                   going and filing with FERC and dealing with it  
9                   through the study plan meeting process.

10                   EARLE AUSMAN: One thing that was  
11                   brought up in my discussions with the gentleman  
12                   that was from pipeline safety was that he's  
13                   going to talk to Alyeska to see if we can get  
14                   hydrographic data off of Alyeska's weir, which  
15                   will be very useful to give us that. They may  
16                   also have temperature data. I wouldn't be  
17                   surprised if they did.

18                   Because of that project, they may  
19                   have done considerable fish work in the lower  
20                   portions of that stream that might be useful in  
21                   indicating to us what kind of studies might be  
22                   appropriate for you guys, and I think that  
23                   anything that we get from them we'll be glad to  
24                   share with you and hope you'll do the same with  
25                   us, Jim.

1                   JIM FERGUSON:  Sure.  I'm  
2           interested in knowing -- I might talk to the  
3           fellow that did the report on the restoration.  
4           Obviously there seems to have been some changes  
5           since they took that weir out of there, and  
6           maybe they're already looking into that problem.  
7           Have you talked to them about that?

8                   JOEL GROVES:  No, I haven't,  
9           although Dennis did mention that after the weir  
10          was removed, he saw that fish up there, I guess  
11          in the area of the weir where he saw the silvers  
12          last fall.

13                   EARLE AUSMAN:  He got a picture  
14          that shows their backs.

15                   JIM FERGUSON:  Did somebody at  
16          Alyeska take that?

17                   EARLE AUSMAN:  I don't know who  
18          took it.  Somebody sent it to us from your shop.  
19          We were talking about Allison and they pointed  
20          out to us that they knew there was some silver  
21          salmon that moved up Allison Creek, and they  
22          said they had a couple pictures.  And they  
23          e-mailed them to us, but we don't know where the  
24          pictures were taken, how far down they were  
25          taken or anything else.  We don't have the data

1 on it. We want to know where and the details.  
2 They might have gone up there and said, hey,  
3 this is not good habitat for us.

4 JOEL GROVES: It almost has to be  
5 at or near the weir where someone can walk and  
6 take the picture.

7 KIM NGUYEN: These pictures,  
8 Earle?

9 EARLE AUSMAN: Can you see that?

10 JOEL GROVES: Says,  
11 "September 18, '04, coho salmon spawning" and  
12 there's fins in the water. This is at the weir.  
13 I would say that right there is the remnant of a  
14 weir probably.

15 EARLE AUSMAN: Did you guys see  
16 the building there when you walked up there?

17 KIM NGUYEN: A blue one.

18 EARLE AUSMAN: Did you see that?  
19 I think that's where their water system is and  
20 intake is slightly above that. So that kind of  
21 demarcs the general area in that particular area  
22 which is not far above the initial gate starting  
23 up that access trail.

24 AMANDA HENRY: Jim, what do you  
25 know about resident fish?

1                   JIM FERGUSON: We don't know  
2 anything about resident fish. Currently I think  
3 we have been through this already, but legally I  
4 think it's cataloged for kings and chums.  
5 That's all.

6                   JOEL GROVES: So the cohos they  
7 saw last September was in the vicinity of the  
8 weir.

9                   JIM FERGUSON: Is that in the  
10 report that came out?

11                  JOEL GROVES: It's the one that  
12 Dennis had. I was going to put this on the web  
13 site also to disseminate it easily.

14                  JIM FERGUSON: I think that was  
15 the one that was done. He did that and he had a  
16 PowerPoint presentation too that was pretty good  
17 that he did on that.

18                  STEVE HOCKING: Okay. Last one,  
19 geology and soils. We talked about briefly in  
20 terms of the construction of the dam. Are there  
21 any issues or interests?

22                  AMANDA HENRY: I would be  
23 concerned with earthquakes which are always an  
24 issue, and seismic activity up there, potentials  
25 for failure.

1                   JOEL GROVES: All the structures  
2 would of course be built to standard codes for  
3 the region in accordance with the class of the  
4 structure, and obviously the pipeline crosses  
5 the creek downstream so that would be part of  
6 the dam safety.

7                   AMANDA HENRY: That's harder  
8 because -- especially if you're putting a pipe  
9 in.

10                  STEVE HOCKING: Yeah. Our  
11 office, which also includes our Division of Dam  
12 Safety, will be looking at it too, and we'll be  
13 looking at it. So they should have the safety  
14 aspects covered, that's for sure.

15                  JOEL GROVES: And obviously the  
16 site is a hop, skip and a jump from the  
17 epicenter of the '64 quake.

18                  AMANDA HENRY: There's seismic  
19 activity there all the time.

20                  STEVE HOCKING: So there will be  
21 the possibly, the need to maybe do a cutdown  
22 through the mouth area of the lake.

23                  EARLE AUSMAN: Yeah, we might do  
24 that.

25                  STEVE HOCKING: But it probably

1 wouldn't involve too much removal of soil, so  
2 you wouldn't have like a soil pile you would  
3 need to locate somewhere.

4 EARLE AUSMAN: No, not if we did  
5 that cut. It would be narrow as we could  
6 potentially make it and look at the materials in  
7 there. You'd like to make it not any wider than  
8 about 60 inches to do that.

9 JOEL GROVES: That would be a  
10 cut, just a trench that would not be permanently  
11 open.

12 EARLE AUSMAN: We would fill it  
13 back in with concrete or something and  
14 potentially cement because there's no fine grain  
15 soils and you wouldn't be able to find fine  
16 grain soils that were impermeable. They're not  
17 available. Your fine silts or clay, they're not  
18 there. It's rock; rock, rock and more rock.

19 CASSIE THOMAS: Would FERC likely  
20 require an emergency spillway of some sort?

21 EARLE AUSMAN: I don't believe  
22 so. I don't think it's considered high hazard.

23 CASSIE THOMAS: Because there's  
24 nothing downstream other than the road.

25 AMANDA HENRY: The pipeline.

1 CASSIE THOMAS: That's a good  
2 point.

3 AMANDA HENRY: That would be a  
4 catastrophic event.

5 EARLE AUSMAN: We would likely  
6 design this dam so it can be completely  
7 overtopped, and it would operate at a spill rate  
8 that in essence would have the carrying capacity  
9 as the current stream has with its banks and so  
10 forth. So, in essence, we wouldn't change the  
11 actual characteristics of how the water would  
12 necessarily flow to the top. If anything, what  
13 we might do is have a tendency to be slightly at  
14 the time that excess water occurred and you  
15 might be able to actually ameliorate any sudden  
16 conditions.

17 JOEL GROVES: Another mitigation  
18 issue strategy for failure. In terms of the  
19 failure, it might be a matter of arming the  
20 pipeline as we design the pipeline.

21 CASSIE THOMAS: If you lost your  
22 entire 20-foot dam.

23 JOEL GROVES: In the worst-case  
24 scenario there is no problem.

25 EARLE AUSMAN: Meet that

1 particular requirement in case there's a dam  
2 break. I think that likely will be a  
3 requirement. I'm not saying for sure. Alyeska  
4 has gone through a tremendous amount of work on  
5 those. There was a great deal of controversy  
6 and barrel depths and how to deal with these  
7 various kind of phenomenon, so they really  
8 armored the tar out of that. It's just not a  
9 casual, put the pipe in and throw some rocks  
10 around it. There's much more than that. I'm  
11 sure they'll work with it to insure that we have  
12 a very, very safe pipeline.

13 STEVE HOCKING: Okay. Anything  
14 else? Just a couple of quick notes about  
15 development of studies, which is the next phase  
16 in the licensing process that we all need to go  
17 through. In summary, everyone will put together  
18 their study requests and file them with the  
19 Commission and Green Power Development.

20 Then Green Power Development has  
21 to put together a proposed study plan. Then  
22 there's a series of study plan meetings, which  
23 are currently scheduled for this November. Then  
24 Green Power will put together a revised plan and  
25 then the Commission will issue a determination,

1 basically a letter which will approve and/or  
2 modify the plan. Then that will be the study  
3 plan that Green Power will have to follow during  
4 the next one or two study seasons.

5                   When they have collected  
6 information everybody feels is necessary, then  
7 we do a NEPA analysis. That's how it works in a  
8 nutshell. The proposed study plan has to have a  
9 detailed methodology and schedule for completing  
10 the studies. It has to have provisions for  
11 progress reports and study reports to keep  
12 everyone informed of the progress of the studies  
13 and how they're going. And Green Power has to  
14 give a rationale for not adopting any study  
15 request that someone files with the Commission.

16                   EARLE AUSMAN: If we don't adopt  
17 a particular study request, that occurs at the  
18 time when we're discussing that -- before FERC  
19 makes their decision on what plan to adopt? So  
20 the timing is earlier on. Is that right?

21                   STEVE HOCKING: Everyone files  
22 their study requests, including Commission  
23 staff, and then in your proposed plan if you  
24 don't adopt any at that time, you explain why  
25 and it should be based on the seven criteria in

1 the Commission's regs. Then at the meetings you  
2 can also reiterate why you didn't adopt it and  
3 then discuss it and hopefully reach a consensus,  
4 that, oh, it's not needed after all, or, okay,  
5 we agreed to it, but we want to change it in  
6 these ways, et cetera.

7 So there's several times during  
8 the development process to revise that.

9 EARLE AUSMAN: And if there's an  
10 impasse?

11 STEVE HOCKING: If there's an  
12 impasse, then in the revised plan you put in  
13 there what you think needs to be in there. Then  
14 there's another opportunity for whoever  
15 requested the study to file comments with FERC  
16 saying, no, we disagree with Green Power and  
17 here are reasons why, and it's based on the  
18 seven criteria. And then the office director,  
19 my office director makes the decision that's in  
20 the determination letter.

21 EARLE AUSMAN: Okay.

22 STEVE HOCKING: That's how it  
23 works. Study plan meetings are basically just  
24 informal resolutions of any issues and disputes.  
25 So if a dispute does come up regarding the

1 proposed plan, then hopefully you can work it  
2 out during those study plan meetings.

3 The revised plan is due within 30  
4 days of the end of the comment period on the  
5 proposed study plan. It has to have the same  
6 components and then the Commission study  
7 determination letter, which we send out 30 days  
8 after the revised plan is filed. So that's kind  
9 of how it works in a nutshell.

10 Let's take a look at the process  
11 plan, which is this document in your scoping  
12 document 1. Every project using the ILP has to  
13 have a process plan, and it's something  
14 basically put together jointly between  
15 Commission staff and the applicant. This plan  
16 has all the milestones that need to be  
17 accomplished or completed and a specific date in  
18 the FERC regulation next to it for reference  
19 purposes from start to finish.

20 So you all can use this and hang  
21 on to this as basically a guidance document of  
22 what you're going to have to do when. Just keep  
23 in mind that this process plan does change and  
24 the dates will change based on how the  
25 proceeding is going. So what we encourage the

1 applicants to do is to put a copy of this, lay  
2 this version on the web site if they're  
3 maintaining a web site, which I think you all  
4 have done.

5 JOEL GROVES: The entire document  
6 is on there. We don't have this page as  
7 uniquely its own.

8 STEVE HOCKING: You might want to  
9 have this thing updated so folks will know to go  
10 there, and they can see what the next milestone  
11 is and what the next date is for the milestone.  
12 Let's run through a couple of these quickly.

13 Starting at the very top it says,  
14 Green Power Development responsible entity, on  
15 left-hand column, will issue a public notice for  
16 their notice of intent in their pre-application  
17 document, which they did in May. At the same  
18 time they filed their intent and pre-application  
19 document with FERC, again, May 23rd.

20 The Commission is supposed to  
21 have meetings with any interested tribes within  
22 30 days, and we sent out a letter to the Valdez  
23 tribe but we didn't get any response. We called  
24 them and did not get any response in terms of  
25 them wanting to meet specifically with us. So

1 we have a milestone on the process plan for  
2 that.

3 If at the present time anybody  
4 becomes aware of the Valdez tribe or any tribes  
5 interested in meeting with us, just let us know  
6 and let them know and we can do that  
7 government-to-government consultation.

8 JOEL GROVES: I think I mentioned  
9 I talked to the president of the Valdez tribe in  
10 the past few weeks and discussed it, and she  
11 didn't sound like she had a high level of  
12 interest.

13 STEVE HOCKING: We contacted them  
14 and we didn't get any response either. The next  
15 one says, FERC issue public notice and PAD and  
16 issue our scoping document 1, which we did in  
17 July. Then this week hold our scoping meetings  
18 and site visit.

19 The next one down is the one you  
20 need to be focused on currently. That says, All  
21 stakeholders file PAD and scoping document 1  
22 comments and study requests. Those are due  
23 September 16th. So that's your next deadline.  
24 You have basically 30 days to get together  
25 whatever study requests that you have and file

1       them with the Commission and submit a copy to  
2       Green Power. So that's the next date that you  
3       really have to be focused on.

4                       After that issue, scoping  
5       document 2. Right now we're proposing not to  
6       issue a second scoping document. We do not  
7       think that it's probably needed in this case.  
8       If anyone thinks that a second scoping document  
9       is needed, just let us know and we will put one  
10      together. But our proposal right now is not to  
11      issue a second scoping document.

12                      Then Green Power Development file  
13      proposed study plan. That's by the end of  
14      October, October 31st. Next milestone, all  
15      stakeholders hold proposed study plan, and we  
16      have those scheduled for November 29 and 30. So  
17      two days, depending on how the study requests  
18      come in and the level of consensus that we have  
19      or not. If there aren't a lot of issues, then  
20      maybe one day. So that can change. But that  
21      would probably be here in Anchorage.

22                      It will probably be John Blair,  
23      the project coordinator, who will be out here  
24      for that. So you might want to put on your  
25      calendars right now 11/29 and 11/30 for the

1 proposed study plan meetings, knowing that it  
2 could possibly be one day, maybe more days. So  
3 that's the proposal at this time.

4                   These meetings are Green Power  
5 Development meetings; they're not FERC's  
6 meetings. They have to have at least one and  
7 it's really up to them to set the meeting date  
8 and the schedule and the agenda for that  
9 meeting. FERC staff tries to go, we make it a  
10 pretty high priority to go to those meetings.  
11 If there's a lot of consensus and very few  
12 issues, maybe we could join by teleconference or  
13 otherwise not come all the way out to Alaska,  
14 but we will definitely be here if we need to be  
15 here. So put those two dates on your calendar.

16                   Within 30 days after that meeting  
17 all stakeholders have to file your proposed  
18 study and comments. So you've read the plan,  
19 you have comments on it, you agree or disagree  
20 with the studies, the methodology, goals,  
21 objectives, et cetera. That's what you're going  
22 to file at that time with the Commission.

23                   Then a month later, 30 days later  
24 the next item is Green Power files their revised  
25 plan, taking into account those comments that

1       you provided. Then there's one more stop. It's  
2       only 15 days after the revised plan is filed and  
3       everyone can have a chance to file comments on  
4       that revised plan.

5                        So if you think you worked things  
6       out during the study plan meetings and yet the  
7       revised plan doesn't reflect what you thought  
8       you worked out, you have another chance to  
9       provide comments prior to the director's study  
10      determination letter which is 30 days after the  
11      revised plan. And for this project most likely  
12      that will be the end of the study plan  
13      development phase. We'll have an approved plan  
14      and that's what Green Power will use over the  
15      next year or two.

16                      These milestones that are shaded,  
17      FERC's regulations give mandatory condition to  
18      the agency to petition FERC for a formal dispute  
19      process, yet another process, if they disagree  
20      with the director's determination. Say, FERC's  
21      director says a study does not include a study  
22      and the mandatory commissioning agency disagrees  
23      with that. They can go through a formal dispute  
24      process.

25                      Mandatory commissioning fisheries

1 include NOAA Wildlife Section 18 or, say, Forest  
2 Service or BLM that comes to a study that  
3 pertains to 4E conditions. The state DEQ here  
4 in Alaska could file pursuant to a study under  
5 the 401 Water Quality Certificate, which there's  
6 no plan to issue. It's 401.18 Section 4E, and I  
7 think that's it. I don't think CS&A is one  
8 that's listed in the regs, if I remember  
9 correctly.

10 At this project we're not  
11 expecting any 401, not expecting any fishway  
12 prescriptions, no federal land is involved, so  
13 I'm not participating any filings for the formal  
14 dispute process for Allison Lake.

15 Moving on. Again, the first  
16 study season would be September of '06. At the  
17 end of that study season what Green Power has to  
18 do is they have to put together an initial study  
19 report. That would be due about October 2 of  
20 '06. Then what they would to do is have another  
21 meeting, get everybody together to take a look  
22 at the report.

23 The report is supposed to present  
24 the data from the studies conducted the previous  
25 year. Then everybody sits down during that

1 meeting scheduled right now for October 17, '06  
2 to discuss the results of the studies and see  
3 whether they accomplished the goals, whether  
4 additional studies are needed, whether there are  
5 unusual circumstances, a low water year or  
6 something where the study couldn't be conducted,  
7 and to basically check in on the progress of the  
8 studies.

9                   And then Green Power is supposed  
10 to file an initial study report summary. That's  
11 the next item there within 15 days afterwards.  
12 So that's after each study season. You have  
13 Green Power goes out and does their studies for  
14 year one, they put together a report of the  
15 summary of the studies, everybody sits down,  
16 talks about it. There's a summary and then if  
17 there's a dispute, then there's another dispute  
18 process. That's open to everyone, not just  
19 mandatory commissioning agencies. That happens  
20 at the end of year one and year two.

21                   That's basically how the studies  
22 go, and that gets you to their filing of a  
23 preliminary licensing proposal, which is kind of  
24 like a draft license application except they  
25 don't have to put together all the exhibits for

1 a preliminary licensing proposal. The reason  
2 being that a lot of people are in settlement  
3 discussions at that time, so the Commission  
4 tried to reduce the burden on the license  
5 applicants at that particular time they're  
6 licensing.

7 Then there's a comment period.  
8 Next one is oral stakeholders file on the  
9 proposal, then file the final license  
10 application. Then we get to the post-filing,  
11 which we probably don't have to cover at this  
12 time.

13 So basically this is a roadmap.  
14 If you're going to be involved with the process,  
15 you need to keep these dates in mind and you  
16 don't want to miss the dates, because the  
17 Commission right now is telling folks that if  
18 you miss the dates, we're just going to continue  
19 moving forward with the process. So if you have  
20 any questions about this, you can give either  
21 myself, you know, at any time during licensing,  
22 you can give myself a call or you can call John  
23 Blair. He's the project coordinator.

24 Does anybody have any questions  
25 right now? Everybody realize that studies

1 requests are due by September 16? And you need  
2 to file them with the Commission, send a copy to  
3 Green Power. Okay.

4 The last thing I really want to  
5 talk about is the seven study criteria which is  
6 in the Commission's regulations, Section 5.9 in  
7 this book that you all have.

8 KIM NGUYEN: Our Bible.

9 STEVE HOCKING: Seven study  
10 criteria. You also have a copy of this. It  
11 says, Understanding the study criteria, which  
12 gives a little bit more explanation of what we  
13 mean by the criteria and what you need to do in  
14 order to meet it as you form study requests.  
15 Basically, if you file study requests with the  
16 Commission you need to address each one, each  
17 one of these criteria.

18 What we recommend folks do is  
19 literally rewrite the study criteria and then  
20 have your paragraph or paragraphs, you know,  
21 addressing each study criteria one after the  
22 other.

23 CASSIE THOMAS: Does this exist  
24 in electronic format where we could use it as a  
25 template?

1                   STEVE HOCKING:  Some applicants  
2                   have put together kind of a template study  
3                   request form.  I don't think Green Power has  
4                   done that.

5                   CASSIE THOMAS:  This isn't in the  
6                   E-library?

7                   STEVE HOCKING:  I can get this to  
8                   you electronically.  Remind me and I'll do that.  
9                   Basically we're recommending that you rewrite  
10                  the criteria and address it immediately  
11                  underneath, so there's no confusion.  You can  
12                  take a look at this guidance.  The manual  
13                  provides a little bit more information on what  
14                  we're looking for in terms of each criteria.  
15                  These were worked out by all the agencies that  
16                  were interested in hydro licensing during the  
17                  rulemaking process.  So we got quite a bit of  
18                  buy-in in terms of how these criteria are  
19                  written and the form and substance of what a  
20                  study request is supposed to look like.

21                  The most important part to  
22                  remember is that you really have to explain  
23                  thoroughly why the study is needed, your goals  
24                  and objectives, and also the project nexus.  
25                  That's probably the most difficult criterion to

1 address that we seem to be finding. You can  
2 take a look at page 6. That's 5.9 B5. Talks  
3 about the nexus between project operations and  
4 effects.

5 We've been having a little bit of  
6 difficulty in terms of people filing study  
7 requests that meet that project nexus criterion.  
8 Take a look at this, make sure that your study  
9 requests are in this form and they address each  
10 and every criteria. We can walk through these  
11 now if you want to.

12 Does anybody want to do that?

13 EARLE AUSMAN: Do what?

14 STEVE HOCKING: We can walk  
15 through these and talk about each one.

16 CASSIE THOMAS: They seem pretty  
17 clear.

18 STEVE HOCKING: They're pretty  
19 self-explanatory.

20 EARLE AUSMAN: Would you please  
21 go over again where this detail about the term  
22 nexus or the definition of it is used in the  
23 context of this? You gave a paragraph number.

24 STEVE HOCKING: Page 6 in this  
25 guidance document, not the rulebook.

1 EARLE AUSMAN: Oh, I was in the  
2 rulebook. Okay.

3 STEVE HOCKING: It doesn't go  
4 into a lot more explanation because most of  
5 these are pretty self-evident on the face of  
6 them, but they tried to explain it in a little  
7 bit more detail. But basically you have to make  
8 sure that if you're asking for a study that  
9 there's some sort of nexus between the project  
10 and the study, that you're not asking for a  
11 study of some wildlife species that's not at the  
12 project or is in another basin or associated  
13 with another project. Sometimes that can be  
14 very difficult to draw the line as to when a  
15 resource is not affected by the project and when  
16 a resource is affected by the project.

17 So it can be a difficult one to  
18 tackle in some circumstances or it can be  
19 blatantly obvious. It depends on the resource.  
20 Okay.

21 Does anybody else have any other  
22 questions about the Allison Lake project in  
23 general? Any other concerns? Anything else  
24 that needs to be raised? All right. Well, just  
25 keep in mind that those study requests are due

1 the 16th. They need to be filed with the  
2 Commission. You can do that electronically now  
3 by going to our web site, [www.FERC.gov](http://www.FERC.gov).

4 You can also look up everything  
5 that has been filed or issued on this project by  
6 using the project number and going to E-library,  
7 which is also on the web site. You can also  
8 subscribe to the project by using E-subscription  
9 which will send you an e-mail every time  
10 something is filed on the project.

11 Any other questions, then? Okay.  
12 Well, let's go ahead and close the meeting.  
13 Thank you very much.

14 (Proceedings concluded at 4:25 p.m.)  
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REPORTER'S CERTIFICATE

I, LESLIE J. KNISLEY, Shorthand Reporter  
and Notary Public in and for the State of Alaska  
do hereby certify:

That the proceedings were taken before  
me at the time and place herein set forth; that  
the proceedings were reported stenographically  
by me and later transcribed under my direction  
by computer transcription; that the foregoing is  
a true record of the proceedings taken at that  
time; and that I am not a party to nor have I  
any interest in the outcome of the action herein  
contained.

IN WITNESS WHEREOF, I have hereunto  
subscribed my hand and affixed my seal this 22nd  
day of August, 2005.

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LESLIE J. KNISLEY  
Notary Public for Alaska  
My Commission Expires: 12/30/06