PACKWOOD HYDROELECTRIC PROJECT

(P-2244-022)

PACKWOOD MEETING

April 27, 2009

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BE IT REMEMBERED THAT, pursuant to the Washington Rules of Civil Procedure, the Packwood Hydroelectric Project meeting, was taken before Tia B. Reidt, #2798, a Certified Shorthand Reporter, and a Notary Public for the State of Washington, on April 27, 2009, commencing at the hour of 9:14 a.m., the proceedings being reported at Washington Public Utility District Association, 212 Union Avenue SE, Olympia, Washington.

APPEARANCES

Ken Hogan, FERC
Dan Ross, Energy Northwest
Bill Kiel, Energy Northwest
Cory Wornock, EES Consulting
John Blum, EES Consulting
Mike Gerdes, Forest Service
Kristie Miller, Cowlitz Valley Ranger District
Ruth Tracy, Gifford Pinchot National Forest
Steve Wotruba, Energy Northwest
Randy Crawford, Energy Northwest
Fred Mitchell, Clallam PUD
Alicia Bishop, NOAA Fisheries
Michelle Day, NOAA Fisheries
George Lee, Yakima Nation
Eric Schlorff, Department of Ecology
Bill Frymire, Washington Attorney General's office
Mark Hunter, Washington Department of Fish and Wildlife
John Hart, FERC contractor
George Gilmour, FERC contractor
Eileen McLanahan, FERC contractor team

PACKWOOD HYDROELECTRIC PROJECT MEETING

Monday, April 27, 2009

9:14 a.m.

KEN HOGAN: Ken Hogan. I would like to thank everybody for coming today. This has been a great project for me and a testament to the ILP. I think everybody in this room has worked extremely well together, and it really shows and makes our life a lot easier at the Commission, so I'd like to thank you for that.

As you know, we've issued our Draft Environmental Assessment, and we're now preparing our final EA for the project, and we just want to get some feedback and discuss a few of the outstanding issues that we've had with our draft and based on the comments that we've received.

If I could start by doing introductions around the room. We'll start over here with Dan.

MR. ROSS: Dan Ross, Energy Northwest, Project manager for Packwood Hydro.

BILL KEIL: Bill Kiel, Energy Northwest.

CORY WORNOCK: Cory Wornock, fisheries biologist for EES Consulting.

JOHN BLUM: John Blum, fisheries biologist, EES Consulting.

MIKE GERDES: I'm Mike Gerdes. I'm the hydropower

coordinator for the Forest Service.

KRISTIE MILLER: Kristie Miller. I'm the district ranger at the Cowlitz Valley Ranger District.

RUTH TRACY: I'm Ruth Tracy, soil and water program manager on the Gifford Pinchot National Forest.

STEVE WOTRUBA: Steve Wotruba, Energy Northwest.

RANDY CRAWFORD: Randy Crawford, project lead, Energy Northwest.

FRED MITCHELL: Fred Mitchell, Clallam PUD.

ALICIA BISHOP: Alicia Bishop, NOAA Fisheries.

MICHELLE DAY: Michelle Day, National Marine Fisheries Service. Same thing, NOAA Fisheries.

GEORGE LEE: George Lee, Yakima Nation.

ERIC SCHLORFF: Eric Schlorff, Department of Ecology.

BILL FRYMIRE: I'm Bill Frymire. I'm with the Washington Attorney General's office, and I represent the Washington Department of Fish and Wildlife.

MARK HUNTER: Mark Hunter, Washington Department of Fish and Wildlife.

JOHN HART: I'm John Hart. I'm a FERC contractor and a hydrologist.

GEORGE GILMOUR: My name is George Gilmour. I'm a FERC contractor. I'm the fish biologist on the project.

EILEEN MCLANAHAN: Eileen McLanahan, directorial

biologist on the project with the FERC contractor team.

KEN HOGAN: I'm Ken Hogan. I'm a fishery biologist with the commission. And up until the draft EA, I was coordinating this project. By this meeting, I'm announcing that the coordination has been transferred to Carolyn Templeton, who also worked on the draft. So if you have any questions, just send them to Carolyn.

Well, it was felt that since I was close to the project that I should come to the meeting. She was going to be here, but they decided to do some budget cuts, so...

UNIDENTIFIED SPEAKER: So Ken, will you send us an e-mail contact for Carolyn?

MR. HOGAN: Yeah. Yeah. And it's CarolynTempleton@FERC.gov. And if you want her phone number, I can give that to you right now. It's (202) 502-8785.

MIKE GERDES: I'm Mike Gerdes with the Forest Service.

So Ken, are you just restructuring at FERC or are you just shifting projects or...?

KEN HOGAN: It's just a workload issue.

MIKE GERDES: Okay.

KEN HOGAN: I'm still assigned to the project as the fishery person. I'm just not coordinating all of the resources.

MIKE GERDES: Okay.

KEN HOGAN: Okay?

All right. With that, I'd like to go through some of my ground rules. At my last meeting, I had to tell people no punching. I don't think I have to do that here with this group. But I do ask that, you know, folks respect everybody's opinions and just allow people to say what they've got to say, and I think we're going to have a pretty good meeting.

We have one outstanding 10(j) issue with the Washington Department of Fish and Wildlife regarding the fish screens. And to this -- to talk about our 10(j) process, we issued the Draft EA and then a Letter of Inconsistency with Section 10(j) to the Washington Department of Fish and Wildlife. And what that does is that initiates our 10(j) process of trying to resolve the 10(j) issues.

And that process -- this meeting as requested is part of that process, and it doesn't -- it doesn't conclude until the Commission actually makes a final determination on -- on the licensing applications. So if we don't get the resolution here today, don't think that we're done. We can continue to try and resolve the issues. Okay? Like I said, it's only finalized once the Commission takes action.

With that, onto the discussion issues. The first item I have is --

Well, actually, before I get to the discussion issues, is there anything anybody would like to add to the discussion issues, a specific topic that they would like to discuss?

MIKE GERDES: I'll just -- Mike Gerdes with the Forest Service.

I'll just add one, and that is the letter that you wrote the Forest Service, or regional forests, are talking about the final issuance of the 4(e) and the terms and conditions.

KEN HOGAN: Okay. Can we add that to Item 3 under C, "Other Issues and" -- after we --

MIKE GERDES: That will work.

KEN HOGAN: Okay. I'm glad you brought that up, because I realized I had forgot to put that on here myself.

Anything else anybody else would like to get specific about?

(No response.)

KEN HOGAN: Okay.

Well, with that, George?

GEORGE GILMOUR: Okay. My name is George Gilmour, and I think what I'll do is I'll just start off with a review of kind of how we got where we are on the entrainment issue. And after that, we can have a real open discussion about recent study findings, the different positions you guys have

regarding the need for screening facilities and your approaches.

Does that work for everybody?

(No response.)

GEORGE GILMOUR: I'll start off with a history.

So I think everybody knows that in the FLA, Energy Northwest proposed to address entrainment of the project intake using a three-phased adaptive plan.

In Phase I of that plan, they proposed to basically remove the existing debris screens with better fitting screens and then to monitor the site for entrainment. And what they proposed to do was -- they had a proposed threshold. If monitoring showed that entrainment levels were below 450 fish total, and I believe that was 400 on the outer screen and 50 on the inner screen, then that measure would be deemed adequate or acceptable for protecting fish. If biological monitoring found that numbers of fish that were entrained exceeded 450 fish, it would move on to what they called the Phase II approach.

And under Phase II, that would involve removing the existing screens from the trash racks and developing another approach to deal with trash on the intake structure and then to monitor again for entrainment to see if levels were either above or below the biological threshold they developed.

If they were below the threshold, everything was fine, that would be deemed acceptable. If numbers of fish entrained or impinged exceeded the 450 fish criteria, then they would move on to what they called Phase III.

Phase III was essentially negotiating with the resource agencies and the parties involved in the licensing to come up with alternative approaches to address entraining. So Phase III was, if that was deemed necessary, Energy Northwest proposed to talk with the resource agencies to develop an alternative plan to address entrainment at the project intake, and that was pretty undefined in the FLA.

And then, as all of you know, WDFW in their preliminary Section 10(j)s, and Forest Service in their preliminary 4(e)s, recommended a different approach to address entrainment at the project intake. And that approach was based on meeting a state velocity criteria. The criteria was not the more restrictive fry criteria, but it still -- I believe it was called a fingerling criteria or the adult criteria.

MARK HUNTER: If you want to call it that, yes.

MR. GILMOUR: Okay.

MARK HUNTER: 150 millimeter (inaudible).

GEORGE GILMOUR: Right, right.

And then in our analysis, we certainly acknowledge that screens that were designed to meet or modify

to meet that criteria would be protective of the fish, but we felt that the costs associated with actually designing or rebuilding the screens to strictly meet that criteria, if they were unwarranted, would be -- would outweigh really the incremental benefit you'd receive from the approach that Energy Northwest took. That was our conclusion in the DEA.

I know that subsequent to filing our DEA, there have been ongoing discussions with the Forest Service, there's been ongoing studies, a lot has happened, and WDFW still maintains that they would like to see the screens meet criteria where Energy Northwest and the Forest Service are on the side of doing more of a biological monitoring approach and making modifications as needed.

And I guess with that said, I'd certainly like to hear more about the positions that both of you guys have regarding the issue and why you feel criteria screens are necessary and why Energy Northwest and the Forest Service feel that their biological monitoring approach coupled with these modifications would be more appropriate.

So with that said --

KEN HOGAN: Mark?

MARK HUNTER: We made our position based on state law. As you know, there's a long history in this state concerning the damage of hydropower and irrigation to birds and to fish. So going way back, we have laws dating into the

early part of the 20th century to protect fish.

Subsequent evaluation of fish approaching the screen velocity -- and these were done under test equations, and I actually participated in one back in the late -- in the '80s, where they actually tested hatchery fish to see how -- if they could avoid impingement on the screen surface. We came up with an engineering criteria and a mesh size necessary to protect fry in various stages of the -- various life stages of fish.

Now, most of the time, in fact almost uniformly, we apply a fry standard, as you state, for fish passage. And currently the current facilities don't meet that fry standard. I personally made a judgment call early on that a fry standard may not be appropriate for this site. Whether I should have done that or not, I don't know, but I'm on paper saying that, so I've stuck with that.

My thinking at the time was that the fry that passed over the dam had had no chance of getting back to the lake and were unlikely to contribute to a fishery, and thus it wasn't that important. Furthermore, the fry entering the lake, most of the fry enter the lake at the far end of the lake. They're likely to stay in the stream or along the water's edge as long as possible. My thinking was that it probably wouldn't get down to the far end of the lake that often.

Now, those are judgment calls I made. In fact, the forest service biologist disputes this, so I'll leave it at that.

We rely on physical criteria almost exclusively now simply because of the cost of evaluating -- we're continually reevaluating what the criteria should be. If the option of doing a very formal research type situation to reevaluating is there, but it's certainly not something that most hydropower proponents want to pursue. The proposal being put out there to assess screen impingement is more of an assessment, and we just don't want to go there right now. I also want to emphasize current screening on the facility is 30 years old. What did we say, 30 or 40 years old?

DAN ROSS: Well, since the project was built, since '64. We have done some repairs, but...

MARK HUNTER: So in our mind, relicense is time to upgrade the physical facilities, make the capital improvement needed to make this work for a long period of time. This is our shot at it. We'd like to get it done right the first time.

As far as the assessment being proposed by the forest service, and Mike will get into that, it appears to be an involved process. It's assessment rather than research, and we're not sure that it's going to get the true protection we want to see.

So we would like to see the physical criteria apply to the project and just get on with upgrading the facility as needed.

KEN HOGAN: So from our position, we haven't done this -- we don't see information demonstrating that level of protection that WDFW is requesting is being required by the resources that the fish populate -- to protect the fish population in Packwood lake. And that's kind of where our concern is.

You know, if we were showing that the project was decimating or negatively impacting the population of the fishery in Packwood Lake, the level of protection that WDFW is wanting would be more warranted. But here we don't have that biological nexus to warrant the screen. We have a little trouble with that.

MARK HUNTER: It's just clear that during certain time periods that substantial numbers of fish end up impinged on the screen surface.

KEN HOGAN: But that's not showing a negative effect on the fishery.

MARK HUNTER: Yes. If -- we're not approaching it as a -- as a -- we're not taking a population level approach. We're trying to save as many fish as possible for the sport of fishery and for the preservation of the species, so it's not the approach that we take towards these hydro projects.

We certainly don't do it at other facilities. We want to see an overwhelming protection for the resources.

GEORGE GILMOUR: Yeah. I think as FERC staff, our rule is to look not only at the resource and what's impacting the resource but to also make a call as to the degree of the impact versus the cost of addressing that impact. This is a relatively small, 26 megawatt project. We have a population of 20- to 30,000 fish in the lake. They're a genetically unique stock, which is important.

The level of entrainment, I guess you can argue what it is on an annual basis. I think we have three years' data now. A couple years it was 50 or 60 fish, it looked like, based on their assessment. One year it was about 350 fish.

A lot of those fish appear to be entering or getting impinged on the intakes during what we would consider to be a post-spawning period. That would lead me to think or at least assume that a good percentage of those might be post-spawn mortalities. And I think ultimately, you know, there's 20 different -- their assessments of the populations in the lake show 20- to 30,000 fish, a fairly large viable population. It appears to have remained pretty viable for the last X number of years the project's been in place.

There's a fairly popular recreational fishery on the lake. The bag limit happens to be five fish per

angler. The lake seems to have supported that with the existing streams and lakes. And again, just the incremental cost of going to that criteria we felt were not necessary over what could be achieved by doing the biological monitoring coupled with some not-so-extensive modifications to the intake facility.

Do you understand what I'm getting at?

MARK HUNTER: Well, we looked at -- observed impingement. I guess the argument could be made that some of these fish were dead before hitting the screen, but that's something that we don't know.

KEN HOGAN: Right. Right. Yeah.

MARK HUNTER: Some of these fish can recover and return to the lake and help provide for the sport fishery. The counts that were made were taken at wide intervals, so we don't -- we don't know the exact accuracy of that count on the screen surface.

Do crayfish, other fish, scavenge those carcasses? And in the case of the -- not the studies last fall but the earlier studies, a lot of the fish were impinged on the outer screen. There's a second screen that's vulnerable to otter, mink, stuff like that. There's little doubt in my mind that there (cell phone interruption).

The point is -- the point I'm trying to make is --

KEN HOGAN: Hold on a second.

MARK HUNTER: The point is -- the point I'm trying to make is we don't have a real accurate measure of what impingement is. How to get that, again, I question how much weight -- how accurate an assessment can get. Our preference is very much to get the structure working to criteria that we are familiar with and we know will work.

KEN HOGAN: I recognize that's the ultimate perfect response for you, I mean, is to have screens that will meet state criteria put in place.

But absent that, is there information through some of the assessment work being proposed that would help you to better define whether or not something less is acceptable, meaning we really would like to have our -- the mitigation measures biologically triggered, you know, where there's a demonstrated effect as opposed to simply policy.

And that's what we're going after. We want to know what does the resource need to be protected, not just it's state law we've got to do it.

MARK HUNTER: The state criteria are based on high-quality research.

KEN HOGAN: And I understand that. But it's not based on site-specific information. And we feel that we have the information at this site to demonstrate the project's not having a meaningful impact on the population in the lake. So

is there information that -- you said that the assessment that's being proposed is inadequate to help you with your judgement.

What would make it more adequate?

MARK HUNTER: You're asking me to add to the assessment something that's...?

KEN HOGAN: What I'm saying is that we're not fully against putting in screens that meet the criteria. We just have -- but before we can support that, we have to demonstrate that there's a need. And if you feel that the assessment to demonstrate that need is inadequate, we'd like to know how you would like to see -- what about it is not cutting the mustard. And you don't -- you don't need to --

MR. GILMOUR: Is that a biological term, "cutting the mustard"?

KEN HOGAN: Yeah.

I mean, you don't need to say something here at the table because obviously, you know, I'm just putting it out there, and it's food for thought, but...

MARK HUNTER: I can't say I have a magic assessment that would resolve all the concerns. We're just not there.

KEN HOGAN: Bill?

BILL FRYMIRE: Bill Frymire, for the record.

Mark, when you started sort of your summary

of where the Department came from to get to where it is, you talked about state law. And it's my understanding that we're not -- the Department isn't asserting state law is the reason that the Department is advocating the position it is. But Mark's, I think, reference to state law shows that the Washington legislature and Washington State government have for a long long time found screens and screen criteria to be an important issue and that they have protected public resources.

And so I think the Department is using that history and that, you know, application in other forms to show that they're not treating these systems differently. It's that same protection, that same bout, so it's not that we're trying to apply state law here. It's the value. So I just want to make sure that -- sometimes when FERC hears "state law," they say, okay, well, this isn't a state law problem, and that's not what I think the Department is advocating.

KEN HOGAN: I guess, you know, from the FERC perspective, we want to know what is needed to protect the resource that's there. And the level of protection needs to be associated with the level of the impact. And we don't feel that 450 fish being entrained annually is demonstrating a need and the result that that 450 fish has on the population of the reservoir demonstrates the need of the

level of protection the State is wanting to -- is recommending.

BILL FRYMIRE: Yeah. I understand what you're saying.

KEN HOGAN: Okay.

JOHN BLUM: John Blum with EES Consulting.

Just to clarify a couple of things, Mark, when you talked before about the fish being on the outer screen. In the previous year, we actually never found any fish on the outer screen. What had happened is that screen was not seated correctly, so there was a gap in it, so fish were able to get into the well. But then with all the flow going around, they weren't able to find their way out, and that was the year we had quite a few fish in there.

What we did this last fall is we completely removed those trash screens so we could see how they interacted in the wells. And we have video on this when we ran the project up to full bore to see highest velocity. And the fish not only were able to stay off of the screens, but they actually moved in and out of those wells completely. So we didn't have -- we didn't show much of that sort of impact. So the screen was actually -- nothing got on that outer screen. It was all what got through that screen and then couldn't get back out.

And you addressed that issue of frequency of

checking the screens, and you've got a good point. You know, some of those were done during the summer at one-week intervals. And things can happen in that one week. Like you mentioned, crayfish can eat them. So part of what we talked about on the biological plan was almost doing a mark and recapture where we place some fish on there and we'd find out their decay rate so that we could basically, almost like a mark and recapture study, then, to see was the impact just those fish we saw or was there a 25 percent decay rate so that we'd need to evaluate that with a different number.

So we tried to, at least what was being proposed, address that issue of what's happening in between the two visits to the site.

GEORGE GILMOUR: This is George Gilmour.

A quick question for -- I guess for John and for the Forest Service as well. In the Revised Condition 9 that was prepared by the Forest Service - I'm assuming it was prepared collaboratively to some extent - it talked about developing a plan to address entrainment at the project intake. There weren't that many specifics regarding the plan. And I guess I had a couple of questions.

For example, you talked about threshold numbers. I don't think that they were clearly defined in Condition 9, and I'm just wondering if you have those developed or if you thought about those other than what's

been proposed by Energy Northwest.

MIKE GERDES: Mike Gerdes, Forest Service.

In Condition 9 what we tried to look at was one and a half percent of the lake population as far as being entrained as a threshold that would trigger some type of action, and that action could be some type of refinement of the project screens, whether it's a baffling system -- or you know, if we made the decision collaboratively, to go with a major project we design. But we tried to base the threshold really on the lake population.

And in Condition 9, we put a fair amount of emphasis on trying to monitor within the initial five years and get a very good handle on what the current density is in the lake. And based on the adult and fry within the lake, then we would base that entrainment criteria within one and a half percent.

So the plan's not built. You know, we just tried to put some side boards on it to give it some, I guess, guidance and triggers to go forward and develop this.

Dan, maybe you can help me. I think it was back in January, something like that, we met -- February, I can't remember the month, where we talked about some of the elements for the monitoring plan, and we knew we'd just be able to put side boards there and then develop it once we said go with this.

And we haven't put the effort in since the go, but we knew that if we had the go with this that between now and hopefully licensed issuance we would get a jump start in developing this plan.

DAN ROSS: Dan Ross, Energy Northwest. What we decided at that time was we set our side boards or parameters for this. Our biggest concern was not really how many fish we may impinge, although that was one element, but how many fish are in the lake, what's the population in the lake. So if you impinge 50 fish on the screens, have you affected population in the lake?

And our initial hydroacoustic surveys, which we proposed hydroacoustic studies for the first three years, I think is what we were talking about, and along with the entrainment monitoring, try to determine if we were affecting the lake populations. And then we would have a period of, I think, three years, and then we would do this again. And then if we're not causing serious damage to the populations, then we would suspend that activity. But if we found we were going to -- we were causing harm to the populations, then we would go into the Phase II thing.

And we also talked about going -- within the first three months of the issuance of the license, that we would have the plan in place and implemented. And so we would -- our attempt was to continue working on this

biological monitoring plan and then implement it the first season the license was issued so that we get our start-off the first three years. And that's my recollection, but my memory is not as good as it used to be.

So -- I mean, that was the whole thing, was we talked about needing to know the fish population as the most important element of the whole entrainment study and making sure that remains a viable population.

KEN HOGAN: Ken Hogan with FERC.

You would be monitoring the impingement level --

DAN ROSS: As well, yes.

KEN HOGAN: -- continuously?

DAN ROSS: Yeah, right. That's a critical element, too. See, in our studies -- and we have some overheads if anybody is interested. John made an illusion to we have films that actually -- when we did our velocity testing, where we would increase from 60 cfs to 220 cfs, and we had underwater cameras on the fish, and they didn't -- they weren't impinged. They weren't even stressed. And that's in the intake well, so right in front of the screen.

KEN HOGAN: Have you filed this?

DAN ROSS: We sent you the report. We didn't file -- I don't believe we filed officially the --

KEN HOGAN: The video?

DAN ROSS: You don't have the --

KEN HOGAN: Do we want the video?

GEORGE GILMOUR: Yeah. The video is on your website, I believe, right?

DAN ROSS: Yeah. And I have a copy, actually, if you'd like it. And we can show -- we've showed that at our meetings and stuff, and Mark has seen that as well.

MARK HUNTER: This is Mark Hunter, Department of Fish and wildlife.

I did observe the film. It is for a limited period in October, right?

DAN ROSS: In October. Actually, was it September?

MARK HUNTER: It was under the modified condition that John referred to. The outside screen is off so the fish could move in and out of the screen cage area. And for periods of time, there were schools of fish that appeared to move in and out, and some of their behavior would be consistent with feeding, so that's what I observed. And I believe that for the limited time period, it was a valid observation.

DAN ROSS: Dan Ross, Energy Northwest.

We also have some, if anybody wants to see, when the onscreen mortalities were discovered were. Generally it was after spawning, so for a short period of

time. And as far as, you know, degradation on the screens, what we found -- and Randy, my operator, can back me up on this because him and Jerry did most of the fish counts on the screens in their routine rounds, is that we never saw -- I'm trying to figure out how to put this. We never saw a fish that wasn't there.

In other words, there was always a skeleton there. The crawdad could have, you know, eaten the fish, but there was always a skeleton. So we counted skeletons as well as, you know, whole fish. And most of the fish that came into the screens looked degraded. They had mold on them or something. And whether that happened after the screen or after they floated in or whatever, it's hard to tell, like Mark said.

KEN HOGAN: Mike?

MIKE GERDES: Mike Gerdes, Forest Service.

The modified term and condition, the entrainment monitoring is like Dan suggested, is a multifaceted, I guess, monitoring plan. And he's right. You know, we need to really get a good handle on the density of the adult and fry population in the lake. And then based on that population level, we can make a determination of what an acceptable impingement rate is.

Concurrently with that, we would be monitoring decay rates of fish within the intake wells and

what level of impingement is occurring there and monitoring of movement of fish in and out of the intake wells with those outer debris screens not removed but at least elevated off of the floor of the lake several feet so that they have free movement in and out of the intake well.

So hopefully what we captured is a real, I guess, good picture look of the entire population in the lake and if the intake wells or the screens do affect the population at any kind of level.

And then based on that, if there isn't the level of impingement -- and we based it at one and a half percent. That goes back to the initial estimates of 450 fish that we had in the FLA. You know, that's a very low level, so if there's -- we don't hit that level, then the intake screens are not having an effect and we don't need to do anything with the screens.

However, if we exceed that threshold, then there's modifications that need to be made to those project screens, so we went back to the physical criteria if the monitoring shows that there's an impact.

GEORGE GILMOUR: This is George Gilmour, FERC.

I note that you guys probably have some pretty good engineers working for you on this project. Have you done any kind of assessments regarding the use of baffles and how that would affect velocities? Is there a feeling

that if the trigger was hit or you exceeded it, would a relatively minor modification bring those screens to within criteria?

DAN ROSS: No. Dan Ross, I'm sorry.

In looking at them in their configuration, the intake portion of the building is 10 by -- a 9-by-10 area where the water comes in, and it goes straight through to the outfall, to the end stock, to the tunnel. And so just by baffling, we don't believe we can distribute, because there's a whole -- there's about seven or eight feet of screen above -- can you get that picture of it? That will help me.

It's hard to describe because -- but without a major modification, let's say cutting concrete or something like that, we don't think we can distribute the water over the whole screen. And so -- and we actually -- in our velocity testing, we found that below 12 megawatts, which is, what, 90, 90 cfs? Below that, we met the screen criteria on every -- at every elevation, you know.

GEORGE GILMOUR: And the percentage of time -- yeah, the percentage of time, 12 -- I remember it was written down in one of the -- the percentage of time or the percentage of the year you're generating at that level or below is about --

DAN ROSS: Right. And we did various elevations. I thinks that's all in the report, but...

GEORGE GILMOUR: Okay.

DAN ROSS: But because once we got below the screen criteria on the whole screen, we didn't test any lower elevations of the lake, because if you meet it at 2856, you're going to meet it at 2855 (elevation). But this is the -- this is where the water comes in, right here (indicating). Do you see this shelf right here? Okay. The water comes in right here, and the actual screen elevation we run the plant about 2856 and a half (elevation) or 2857 (elevation) up here.

So what happens is the water comes in this opening and then equalizes up here. And there's the -- there's the outfall right there. So what the water has a tendency to do is come through here and go straight out, and this just kind of swirls around a little bit, this stuff up in here.

So when we're doing the velocity testing, when we went above that ledge, we would drop off to like .015 feet per second and above. You know, just very very low. So in order -- the only thing we could think of, you know, we thought about baffles and worked with the screen shop and talked to them about baffles, but we don't think we could distribute that velocity above without cutting things out here.

MARK HUNTER: This is Mark Hunter, Department of

Fish and Wildlife.

The key problem we have with meeting criteria is that there's a concrete wall in front of the intake screen, and that forces the flow under it. And the screening just under that wall greatly exceeds velocity criteria. I just want to point out that the power -- the screening facility wasn't built right to start with. And, one more time, now is the time to get it fixed.

DAN ROSS: Do you want to show the entrainment numbers so that everybody has an idea --

CORY WORNOCK: Yeah. I'll have to do some looking for that. I don't think those numbers are specific to this presentation.

Do you just want to see a curve? I can do that.

DAN ROSS: Yeah, a curve where they -- a curve, please, Dan.

JOHN BLUM: This is John Blum with -- actually, if you could go to the other one first.

We did the entrainment study over a three-year period. And in '07, we -- we tried to get out there in '06 every week to do some water surveys, and the water was so high that it didn't do us any good.

2007 was a perfect summer, and we actually got up there every week in order to index spawning. 2007 was

also the summer after the big flood in November of '06, and something up on Lake Creek came down, and the lake turned to the consistency of chocolate. And it just kind of migrated down to the lake, and we think it kind of coerced the fish down there. So that was the year that we had the most fish entrained on the screens.

The year before and the year after was roughly 60. This year, there were about 360 fish.

But what we did and we're able to do, and you'll see on this graph, is we can track the individual timing of the spawning in the tributaries, which is the black line, and the red line is scaled accordingly, the entrainment on the screens.

What we noticed -- and Bob Lucas and Chilco, when they put together their genetic report in '82, talked about a lot of these rainbow died after they spanned. You see them in the streams. You see them off in the deltas.

And what we noticed empirically the year before was, gee, we didn't seem to see these fish until after spawning occurred. This was the first year we had really new data. And as you can see, they track pretty well. Again, this was a much larger number than the years before and after. One of the reasons we did the hydroacoustics is we wanted to see what impact this was having on the fish. If there were 360 fish on the screen and only 1,000 in the lake,

well, we were in big trouble.

So we did two hydroacoustic surveys. One showed about 20,000 early in the year. The later one showed 30,000. And that's where we came up with a little bit over 1 percent impact. On the normal year when we get 60 fish, from in '07 and in '08 -- excuse me, '06 and '08, we're talking about an impact between two-tenths of a percent and three-tenths of a percent of the population.

But part of what Mike is talking about is that we would be doing hydroacoustics concurrent with this thing to keep assessing what's the population in the lake and what's the impact on this population here.

KEN HOGAN: Ken Hogan with FERC.

Mark, I'm of the impression that your department feels that there's only one solution here, and that's -- you're going hold tight to that.

MARK HUNTER: Mark Hunter, Department of Fish and Wildlife.

We're concerned about a protracted assessment phase, reliability of the assessment, and our ability to participate in that assessment phase.

Specific to hydroacoustic methods, you've got to remember that the hydroacoustic estimation reflects off air bubbles, including air bladders from fish, but the other bubbles, sometimes pieces of wood in the water, and so forth.

So we have some concerns about the reliability of the method.

KEN HOGAN: Well, when you say your ability to be involved in the assessment, do you mean...

MARK HUNTER: Agency consultation.

KEN HOGAN: Yeah. From the Commission's perspective --

MARK HUNTER: Yes.

KEN HOGAN: -- you would be a consulted agency if that was -- typically the Commission were to require this type of assessment, Washington Department of Fish and Wildlife would be consulted and a required consultant.

MARK HUNTER: Yes, but it's a matter of spreading our resources --

KEN HOGAN: Okay.

MARK HUNTER: -- across the state and prioritizing them.

KEN HOGAN: Okay.

MARK HUNTER: We just can't participate in that reform anymore.

KEN HOGAN: Okay.

MIKE GERDES: Mike Gerdes with the Forest Service.

Mark, your statement about hydroacoustics, about the level of accuracy of hydroacoustics, I agree a hundred percent. And that was why we had suggested that in this assessment we have so much monitoring using

hydroacoustic, so that we have a better or a very good accuracy on lake population and not target population.

And, you know, this is a question for you two, is, you know, this 20- and 30,000 fish, what's the reliability of that estimate? Is it really fish? Is it air bladders? Is it targets in the lake? And the reason I suggest this is in other hydroacoustic monitoring I've seen, there's an order of magnitude difference between what the target numbers are from hydroacoustic to actually what the population is. So that's why within this condition we put so much emphasis on let's get a handle on the lake population, because we don't know if it's really 20- or 30,000 or 1,000 or 2,000.

JOHN BLUM: John Blum.

If I could address that. I've been doing hydroacoustics off and on for about 35 years now. I did a lot for my graduate work, and then recently we've done a lot at Fox Canyon and here.

In certain situations like where you're talking about in fast running water, hydroacoustics can be kind of suspect. We use it with a grain of salt. But if you're looking for a perfect condition to run hydroacoustics, it's Packwood Lake. You know, it's water that's clear. It's got varied -- it's oligotrophic. It does target swim bladders, so that's what it targets on. That's what

hydroacoustics does.

But you also set threshold levels. It has to be a minus -- minus 70 DV is as small as we go. So air bubbles, zooplankton, productivity, that sort of thing is screened out and they're taken out of the equation when they start to analyze it.

Part of what we do when we do the analysis - and we use biosonics to help us with this because this is what they do - is you go through and you take a look, and you see those air bubbles or those pieces of wood that it's targeting off of, you take those out, so that's part of your calibration when you do that.

So I'm a lot more confident of hydroacoustics in this situation than I would be at a dam where you're measuring fish coming in and out of a really fast flowing area where bubbles and velocities and stuff in the water can really diffuse the signal. This one's pretty good. In fact, it's the best I've ever seen.

KEN HOGAN: Well, I don't think we're going to resolve this today between our agencies, but certainly, you know, if there's things that your agency feels lacking in the assessment that they're proposing, we'd like to hear that. And I understand that you're going to continue to feel that the screens that -- as described are warranted and necessary.

MARK HUNTER: Well, we set standards, and we apply

these standards to irrigation diversions and municipal diversions and so forth. We don't want -- it works against us to have different standards applied elsewhere.

KEN HOGAN: I understand.

With that, is there any other comments regarding fish screens and entrainment at the project?

(No response.)

KEN HOGAN: No response? Okay. We'll move on to down-ramping.

GEORGE GILMOUR: This is George Gilmour with FERC.

I'll be completely honest with all of you. The discussion of down-ramping in our DEA basically, in my mind, came out of a lack of discussion of down-ramping in the FLA. Typically ramping rates are a concern on projects, hydro projects, particularly projects that have (inaudible) fish species in a portion of the project area.

So in preparing my discussion in the DEA, I was concerned about down-ramping, but I also wanted to understand the level of concern that was -- the people in the group had. And again, that wasn't very clear in the FLA or the consultation record. I know that there was some discussion of down-ramping rates associated with the studies that went on early in the licensing process.

Subsequent to doing the DEA, we received comments from a number of you, including from Energy

Northwest, and it sounds to me like their position is the project really has no ability to create down-ramping rates that are greater than about an inch an hour. And I think, you know, my goal at this meeting is to understand the level of concern regarding ramping rates and the different parties' position on ramping rates and whether or not it's really necessary to enforce a strict criteria based on what we know about how the project operates.

And I think, you know, having Mark here is probably quite an asset. He wrote the book on the subject, basically, so I certainly respect what he has to say regarding the issue.

MARK HUNTER: Are you done?

GEORGE GILMOUR: Yes.

MARK HUNTER: This is Mark Hunter, Washington Department of Fisheries.

During my work in a small hydropower boom in the early '80s, I took the time to try and understand the ramping issue. The issue was out there for discussion, and a lot of it -- it should be clear that a lot of it, through the detailed research, originates from large hydropower projects.

It originally caught attention because steelhead fishermen were on the Skagit River, Cowlitz River, Lewis River, during fry emergence, and they would see thousands and thousands of dead fish when the flow dropped.

And in fact, when small fish emerge from the gravel, they tend to cling along the shoreline, sometimes in brush or sometimes just in the gravel substrate. It's likely a behavior to get out of the current so they aren't flushed down river so fast, and also the behavior to avoid predation.

The issue is how do we carry this original study and apply it to the small hydro - in this case, we're not dealing with anadromous fish but resident fish primarily - and what is appropriate. I want to emphasize that the research, and I state this in my original document that's 15 years old now, 18 years old, the research as it applies to small mountain streams for small hydro projects has never been done. There's a lot of speculative documents in its synthesis and so forth, but it just hasn't been done.

On a more observational basis, I have seen stranding of resident trout in mountain streams, not -- it's anecdotal rather than research, but I have seen it on multiple occasions.

Now, I've been out of the hydropower business for nine years, and I come back and I see this standard being applied everywhere, and I have some mixed feelings about it. As a conservative measure to apply until the research has been done, it is probably a good idea for many facilities.

At this particular site, I'm looking at several things: the frequency at which down-ramping occurs;

the contour of the channels downstream of the location; and the gradient of the -- both the channel but also the gravel bar within the channel; finally, the frequency of side channels.

Now, at this site, first and most of all, the proponent can only derive down-ramping at several times during the year. It's just discharging a constant discharge from their outlet most of the year. We have requested process flows which would release a large volume of flow to help process wood and create more channel dynamics downstream.

And that's the key point at which granting an accessible -- the criteria I set out many years ago is likely to occur. It's only happening once, maybe twice a year. In some years, it will not happen. The rest of the time, the proponent doesn't have control over it nor does it appear likely that it's going to happen naturally. The lake will just kind of flatten out, and any hydraulic that comes into the lake.

The channel. The channel is a moderately steep to very steep mountain channel. It's single thread. It's confined. It is not my notion of a channel that's going to be very vulnerable to ramping.

Finally, I want to break the channel into two segments: the channel that's being restored for anadromous

production through terms available on this license and the channel that's upstream of that that's for resident fish production.

With regard to the resident fish channel -- I'm trying to collect my thoughts here. There may be some stranding, but keep in mind that the discharge -- the processing flow discharges are occurring in the winter. The fry emerge in the summer. The type of population that would exist in that type of channel is a very low nutrient mixed pools, a lot of them shallow. In my read, the population is going to be more limited by adult production than fry production. The bottleneck for production is the adult stage. The adults don't get big enough to lay a lot of eggs and so forth. So I don't see a big issue there.

Down in the anadromous reach, there's a chance for stranding. When you're dealing with anadromous populations, the fresh water bottleneck is the fry production and smelt production, especially for coho and then in steelhead. But there's no bottleneck out in the ocean, so we want to try to keep as many fry and juvenile fish alive as possible.

The channel is still small. They're still not analogous to the large channels that the original studies were done on. However, fry may emerge during the time period in which these process flows occur. And I'll go back to the

fact that the core research still hasn't been done; core validation of what you need to protect the fish.

In talking to the proponent of the project, he didn't think it was a big deal to measure that flow fluctuation down in the anadromous zone and try and meet those criteria. He doesn't have any need to do this research, obviously, so that's fine with me.

KEN HOGAN: Okay. I think one of our concerns, recognizing that really Energy Northwest doesn't have control over spill flow so much on the project operations and that even at full capacity of the project, the ramping would only be a half an inch an hour for spill flows. That really wasn't a concern for us.

The concern was when we were changing minimum flows through the minimum flow release, and I think the largest change being about 5 cfs, that's where one of my concerns came in. And recognizing that most of the channel's very steep and, you know, single thread would not be very effective.

But I was wondering about that upper 1,300 feet right below the drop structure, how would 5 cfs drop the minimum flows through that reach affect ramping. And I think John has done some research on this since the comments. But yours looked mostly down below, right?

JOHN HART: John Hart.

Yes. Most of the studies were done in the lower mile. And the ramping study was planned in 2005, so that cross Study Site 1 and cross-section 2, I believe, had the -- was the most susceptible to changing in the ramping rates. And that's located down in the lowest mile and in the upper 1,300 feet. There was normally less than an inch per hour in change. To correct that, the most change is in the bottom mile.

JOHN BLUM: John Blum.

We looked at that lower reach because it was anadromous, and transit to Study Site 1 was the most sensitive to change. I didn't look at -- we have 13 transects right below the drop structure in that 1,400 foot reach. And I happen to have all of the data here. I could tell us within an hour what that 5 cfs change equates to when it's as far as the changing stage. So maybe I can give you an answer for that here pretty quickly.

KEN HOGAN: That would be great. I mean, it's something we're certainly -- you saw our decision -- or recommendation on the draft EA. We've got a lot of comments on it, and we're certainly flexible and would like to revisit it, so any information that could help us with that revisiting would be helpful.

JOHN BLUM: Sure.

KEN HOGAN: Again, you know, my concern was,

looking at that 5 cfs drop, just what would that impact be.

JOHN BLUM: Yeah. It looked like the biggest there was a drop from 20 to 15 on September 15th, and then from 15 to 10. So I'll run those two scenarios on those 13 transects, and I'll get back to us here.

KEN HOGAN: Okay. Thanks, John.

MICHELLE DAY: Michelle Day, National Marine Fisheries Services.

KEN HOGAN: Yes, Michelle.

MICHELLE DAY: Being new to the project, I have a couple of questions just to make sure I'm understanding the conversation.

The habitat forming flows, what's the level of cfs change during that? Is that the 5?

MARK HUNTER: No. I don't have the specific numbers.

JOHN BLUM: 285.

MARK HUNTER: 285. So it's a big jump in flow. Tenfold.

MICHELLE DAY: So your -- the information we will get from the change in 5 cfs isn't going to address the change when we're having these habitat-forming flows.

KEN HOGAN: John, and you can correct me if I'm wrong, or Dan, the habitat-forming flows are going to be produced over the spillway, and basically through a shutdown

of the project or natural -- it's a natural event that's much greater than the project hydraulic capacity.

With the size of the reservoir and the size of the spillway, if the project were running at full capacity, 260 cfs, that could only result in a ramping rate of a half-inch per hour, which we felt was fine beyond -- they can only influence. I mean, the natural ramp would be whatever it is.

JOHN HART: John Hart.

And that effect is also not accounting for inflow to the lake. So in actuality, it would be less than that, because it's very likely that during any habitat-forming flows, you would have high inflows to a lake.

KEN HOGAN: Also, that half-inch per hour, I think, is measured at the drop structure. And where the anadromous reaches down at the first reach down below, you're obviously also going to be having accretion that's occurring through there, so it's going to be attenuated even more in that first reach.

MICHELLE DAY: Okay.

DAN ROSS: Dan Ross.

Michelle, you do understand we have a drop structure and no spillway gates or anything, right? We just have a --

MICHELLE DAY: I believe so.

DAN ROSS: Yeah, a static drop structure that when we -- you know, when the lake levels rise, that's how we get our overtopping, we call them overtopping flows. And so we get those, I don't know, usually a couple times a year, where we can just get so much inflow we can't cross that.

MICHELLE DAY: And that's what you're calling habitat-forming flows?

DAN ROSS: Yes. We call it habitat-forming flows because -- it used to be overtopping, now it's habitat forming because we're required to do it. Okay?

KEN HOGAN: Also, if it doesn't occur naturally, then you'd have to make it happen, right?

DAN ROSS: Then we'd have to induce the flow.

RANDY CRAWFORD: Randy Crawford with Energy Northwest.

The flow that they were talking about that's going to go from 20 cfs to 15 is our bypass around the drop structure. The flows are regulated between 3 to 5 cfs, and now there's proposals to increase that to -- they're going to be larger numbers. So when we have that 20 cfs in the upper reach that he was talking about, you're going have a 5 cfs change. It would go from a 20 to a 15.

GEORGE GILMOUR: This is George Gilmour.

The maximum adjustment that they're going to see for the minimum floor regime, whether it's a step up or

step down, is 5 cfs at any point in change.

MICHELLE DAY: Okay. Yeah, that's helpful.

ERIC SCHLORFF: Eric Schlorff, Department of Ecology.

As I understand the -- these type of flows, the need to have ramping rates is more important for facilities to do load following, but in this facility, even more of a steady state during the whole season. But Ecology would still think it's important to have it in there for those, you know, times if there's going to be changes to the way things are operating in the future. It would be good to still have it in there.

GEORGE GILMOUR: There's also -- there's a gauge that's going to be placed in the lower river too -- river mouth too, I believe. And then a 15-minute or a quarter mile from mile one. That's a 15-minute continuously recording USGS style gauge, and that would also probably provide a means of at least -- would have the resolution to determine ramping rates, do you think?

JOHN BLUM: Absolutely. What it -- John Blum.

It records the stage, and the (inaudible) we use are good to 1/100th of a foot with their accuracy, so yeah, you could be able to determine that.

BILL KIEL: Bill Kiel, Energy Northwest.

Just to comment on your comment, Eric. You

know, we don't release water when we change power levels up at the lake. That water is not released into Lake Creek because it goes down through the pipeline and stop system too, and that comes out through the tailrace canals where you see the changes in power output.

When they increase or decrease the power in the plant, then that will change the tailrace flow, which is some miles downstream from the Lake Creek. And the Lake Creek flow itself is just through a 24-inch bypass, but that's controlled by a belt, so it stays constant regardless of the power conditions.

MARK HUNTER: That does open a potential for flow fluctuations in the Cowlitz River.

BILL KIEL: Yes.

MARK HUNTER: That goes to load following.

MR. HOGAN: Can we take a break for a few minutes and allow the court reporter to relocate?

(Pause in the proceedings.)

KEN HOGAN: Well, before the break what I said is that we'd come back to the down-ramping, but I thought maybe -- because John said that he could get us the information about the 1,300 foot reach in a little bit. Maybe we'll wait to come back to down-ramping until we have that information from John, and we can go on to the project boundary issues.

Regarding project boundaries, Energy

Northwest provided us with comments that they did not like our decisions as to what should be put into the project boundary. And my response to you, Dan, is "tough." The Commission makes a decision as to what's necessary for project operations and what needs to be included in the boundary.

And the best way for you to inform our decision or to make us change our minds is to provide us with information as to why it shouldn't be in the boundary based on project specifics.

But we do have some clarifications that we'd like to ask where we got some information wrong, particularly to the Dyson Pass Cutoff Trail, and so we'd like to get some clarification on that. And the way -- I'm bouncing around here a little bit. But the way that we did do our analysis on the roads and trails that should be in the project boundary, we said, okay, does Energy Northwest have access to these facilities that the public does not, and do they have special access? And that's how we kind of came to -- and is it necessary for them to access the project?

And that's how we looked at redrawing the boundaries to what we did with -- down the Latch Road to the Forest Service gate where Energy Northwest has access beyond the gate -- vehicular access beyond the gate to access the project, and they also use it half of the year.

And obviously Pipeline Trail goes on top of the pipe and is used the other half of the year, and then it deviates around the pipe where I guess it's a tunnel and things of that nature. So we felt that that was -- the trail that was not already on top of the pipe needed to be included into the project boundary because of the need for access to the project by that trail.

So with that understanding or with that explanation, do you have an understanding of where we made our calls on those trails and roads?

DAN ROSS: Yeah. Dan Ross.

I don't think we -- you know, we didn't take too much exception to, you know, the stuff that's already in the project boundaries. However, on like Latch Road, you know, traditionally that was a Forest Service road and we -- when we were going through our negotiations, we said, you know, Forest Service was kind of an opinion that, well, boy, we don't even want to take care of this road anymore. So we said we'll take care of the road. We fixed the slide down there. And we said we'll take care of that road for continued access. And so I was kind of surprised that your assessment said let's include it in the boundary.

Dyson Pass is another situation where we use the access, the small trail over Dyson Pass, and we maintain all of those. Randy and Jerry maintain those trails so that

they have passage. And so, you know, I don't see Dyson as being a big issue.

Where we started worrying about this is once we understood the fee schedule, at first we thought it was just the mass acreage, but then we found out -- apparently I was the only person on earth that didn't know that the Commission doubles that annual fee laid out in the map schedule.

So you know, it increased our -- the boundary fees from, if you added all the property that you had there, from 69,000 this year to 110,000 in 2015 and beyond. So, you know, it does put another economic burden on the project to include those.

And then Snyder Road was -- we were real surprised that that was put in, because we're like a 1 percent user of Snyder Road. We did our recreational studies. What was it, 1 percent? 1.5 percent or something? And the public used it the rest of the time. And that's the paved road that actually goes up to the parking lot, and so that one was kind of surprising to us as well.

KEN HOGAN: Could we pull those maps up?

BILL KIEL: Bill Kiel, Energy Northwest.

Can you explain again, your criteria is one of exclusive use by the project? I mean, in most of these trails, they're all open to the public.

KEN HOGAN: Not exclusive use; use that's specialized use -- you know, we recognize that everybody can hike in. But for like Latch Road, Energy Northwest has access beyond the gate by vehicle.

BILL KIEL: Correct.

KEN HOGAN: So that's a special use that's provided to Energy Northwest that's not available to the public. So that was one of the things that we took into consideration, and that's why we drew the line at the gate, not...

DAN ROSS: At the turnoff.

KEN HOGAN: Right. Right.

DAN ROSS: John was just up there. Everybody give John a hand. Him and his wife snowshoed all the way to Packwood Lake this weekend.

KEN HOGAN: That's our dedicated.

DAN ROSS: Randy's never even done that.

RANDY CRAWFORD: More than once a week.

DAN ROSS: Yeah, only once a week.

JOHN HART: And we had to start walking about two and a half miles before the parking lot. And Packwood Lake is still frozen over. There's probably five or six feet of snow up there.

DAN ROSS: Yep. Okay. The map, the roadmap?

KEN HOGAN: So Snyder Road, do we have a close-up

of Snyder?

DAN ROSS: There's a recreation map in here somewhere. Keep going. Keep going.

Here is -- this is Snyder Road here, if you follow the bouncing ball. This goes all the way up here to --

BILL KIEL: The parking lot is the star.

DAN ROSS: Yeah. There's the parking lot to -- the main parking lot, that's the trailhead for 78. And this is strictly Forest Service trail. We don't do anything on 78. It comes down here.

KEN HOGAN: Okay.

DAN ROSS: And I never go up 78 because it's too far of a hike. So then this is the Latch Road that we're talking about up here. And Ken said they included from the gate, and I'm suspecting the gate's about right in there somewhere, Randy?

BILL KEIL: No. Further down.

DAN ROSS: Further down here?

BILL KIEL: Yeah. It's about halfway.

DAN ROSS: Okay. So this is the part that you included in the boundaries proposed. And that goes up to 74, and this is a trail. And you get bicyclers and four-wheel drive guys and stuff going up this road, Latch Road.

Now, this is Pipeline Bench, which this has

always been in the boundaries and continues to be in our boundaries. This is the drivable part of the road, and then this is the trail that goes into Packwood Lake, Trail 74.

KEN HOGAN: Okay. Now, you said that we included Snyder Road in the brush boundary? From what point?

DAN ROSS: County Line Road. There's a county line sign somewhere down in here. Right here. Yeah. Right at the Forest Service boundary. And it says the end of county road probably right there. Okay?

So then you included Snyder Road all the way up the trailhead.

KEN HOGAN: We'll take a look at that. I don't think that was our intent. I think our intent -- and I'll double-check so I'm not making any commitments.

DAN ROSS: I already wrote it down.

KEN HOGAN: I know Snyder is not gated, so you don't have any special use up to that parking lot that...

DAN ROSS: No. Right.

KEN HOGAN: So John, do you have any recollection on that?

JOHN HART: Let me look at that now, and I'll get it.

KEN HOGAN: Okay. So we will revisit Snyder and what we said on it.

DAN ROSS: Okay.

KEN HOGAN: Latch Road, that's exactly as we -- what I recall it being described, is from the gate up to the lake, well, including Latch Trail, and then up to Trail 74.

The Dyson Pass cutoff we apparently described incorrectly in our draft NEPA document. I was wondering if you can clarify exactly where that is, and is that necessary for project operations or not.

DAN ROSS: Go back. I had it.

BILL KIEL: Bill Kiel, Energy Northwest.

Trail 74 that's shown --

DAN ROSS: It comes up right here.

BILL KIEL: No. It's going down a little bit. That's the Dyson Pass, what we call Dyson Pass.

KEN HOGAN: Okay.

BILL KIEL: There's another main Trail 74 that runs down below the pipeline there that's not shown on this map.

DAN ROSS: This isn't exactly correct.

BILL KIEL: So the trail splits into two trails and then recombines in a section we call the Tunnel 1 here.

DAN ROSS: Actually, 74 goes along this tunnel, and Dyson Pass is this.

KEN HOGAN: So it goes like up over the tunnel or...?

DAN ROSS: It goes up over a little rise in the

mountain.

KEN HOGAN: And you use what's shown here on the map?

DAN ROSS: We use both.

KEN HOGAN: You use both?

DAN ROSS: Yeah, depending on which one is accessible.

BILL KIEL: But primarily we use trail -- the one that's shown here.

And here, this is an example of where the project boundary as originally drawn there, you can see the label there says ten feet each side of centerline.

KEN HOGAN: Yeah.

BILL KIEL: So that sticks right on the alignment of the tunnel.

KEN HOGAN: Right.

BILL KIEL: Of course then the trail -- because the topography is so steep there, the trail routes way up over the top.

KEN HOGAN: Both Dyson and this obviously here? Okay.

BILL KIEL: And a similar thing happens at Tunnel 2.

DAN ROSS: Dan Ross, Energy Northwest.

Now, we can provide these clarified drawings.

They're in the recreation plan, is where we included Dyson Pass. Because when we did our recreation plan with Forest Service and everybody, we updated those maps, so we'll provide those to you.

EILEEN MCLANAHAN: So there's a map that's labeled with Dyson Pass on it.

KEN HOGAN: Yeah. This Trail 74 is where -- see Tunnel 1 here? It's Dyson Pass.

EILEEN MCLANAHAN: But I didn't know if it was labelled in the drawings we had in the license application.

DAN ROSS: Yeah. I believe that in our recreation plan, because we had some talks about that showing where Dyson Pass was, so we'll dig out the recreation plan.

KEN HOGAN: All right.

BILL KIEL: Bill Kiel, Energy Northwest.

I mean, this map shows, up in the upper left there, several places where the trail, as drawn there, goes outside of project boundary. I think that's what you're talking about. And if we include the trail, we end up trying to include all of those little pieces.

KEN HOGAN: Yeah. Right now, right, the way -- our recommendation is that Trail 74 and apparently Dyson Pass are both needed to access the project at least through portions of the year.

So our recommendation, if we apply our

current thought process, is to incorporate those into the project boundary.

DAN ROSS: Dan Ross, Energy Northwest.

This is another fear of ours, is that to what level does "incorporate into the project boundaries" mean in the way of surveying and the cost of surveying, preparing maps and submittal maps?

You know, we have a -- there's a great deal of cost included in going back and resurveying trails and moving project boundaries and things like that, and I don't believe in my research that like the Forest Service has -- you know, has explicit, you know, maps like this with markings -- surveyed markings and things like that. I don't know. I have a contact that Kristie gave me down in Vancouver that I can contact.

But that was the other part of it, is if you start putting in little bits and pieces of trail, then you've got to update all the drawings and things like that, and we'd like the communication to consider those things before we move on.

KEN HOGAN: Okay. To answer your question, which I can't, we do have standards as far as how things are mapped. And John might be an engineer and have a better knowledge than I do, being a fish person.

But the regulations specify exactly what the

maps have to show. We can certainly talk to you about it, and then if you want us to -- and we look at the costs or give better consideration of the costs, you can tell us what you estimate that's going to cost you.

DAN ROSS: Yeah. Dan Ross again.

And to answer Ken's question, we will do that. We have looked at -- because during a relicensing, we have to resurvey lower parts of the project and the tailrace and things like that. And I know I can get a pretty good idea of what the costs are. And you guys require GIS maps and various things submitted in quadruple and things like that, so I know what those requirements are. But we'll try to work up some numbers.

And like I said, just the -- the land use fees didn't scare us. When you start considering what it would take to get the project boundaries and adding these pieces and stuff like that, that's kind of what scared us. I can give you that for some information.

KEN HOGAN: When you submit those costs, if you could break out Snyder Road from the rest of it, or even if you want to break it down by trail section, that's helpful, but I know that might be getting kind of tedious.

DAN ROSS: So Ken said take out Snyder Road; is that what I...

JOHN HART: And speaking of Snyder Road, on the

bottom of Page 207 of the DEA, we specify that Snyder Road would not be in the project boundary. And I'll let Ken read the text down at the bottom.

DAN ROSS: You are on Page 207, right?

JOHN HART: Correct.

KEN HOGAN: Yeah, the last line. "Snyder Road, Taurus Road 1260, is not used primarily for project purposes and access. Therefore while entering Northwest's proposals, maintenance measures may be beneficial. We do not recommend that these measures be included in the license requirements or that the road be included in the project boundary."

So if we made a mistake somewhere else in the document, let us know and we'll correct it.

BILL KIEL: Okay.

MIKE GERDES: Mike Gerdes with the Forest Service.

I mean, that's how I read the DEA, is that Snyder Road was not recommended to be within the project area boundary nor was Dyson Pass.

The question I have really relates to the restoration reach of Lower Lake Creek. That was not included in the project area boundary, that lower mile, mile .2, something like that. In our comments back to you folks, we recommended that be within the project area boundary.

Thoughts?

KEN HOGAN: Typically we don't incorporate the

bypass reaches into the project boundaries. And where we have restoration measures, if it's something that's going to require ongoing annual maintenance, building habitat structures, things of that nature, we would give greater consideration as to whether it needs to be in a project boundary or not.

But if it's a one-time thing or periodic, you know, a couple times through the license term or three or four times through the license term, typically we don't necessarily think that it's going to warrant being incorporated into the project boundary. It's not a facility necessary for project operations. It is a requirement of license, but that -- but it's not needed for the project to operate.

It's certainly something that we will look into based on your comments. If there's a better understanding of why you think it should be in, like it's going to require annual maintenance, things of that nature, that's something you can let us know. But I think right now, we weren't feeling that it was going to be an annual issue for the restoration down there.

MIKE GERDES: Mike Gerdes again.

I'd have to go back to the condition that we had recommended. You know, there's site-specific work to start off with to get a real feel for what restoration needs

to be in there, and then there was the monitoring component with that, and I don't remember the frequency of that monitoring.

But you know, given the level of work that we're going to be doing down there, whether it's annual or every couple years, something like that -- because it's not a one-time shot. It's for the life of the license. That's why we had recommended that.

KEN HOGAN: Okay. Well, we'll take another look at it, Mike.

MIKE GERDES: Okay. Sounds good. Thanks.

DAN ROSS: Dan Ross, Energy Northwest.

I think this is one of the few things that Mike and I agree to disagree on, was the inclusion of Lower Lake Creek. I have to deal with -- in order to get access, I have to deal with private landowners on both sides. It's encompassed by Manassas Lumber. And so trying to define a project boundary on a stream that's, you know -- I mean, you take the stream high water mark at 50 odd feet or something, you know. So we commented back that we didn't feel like Lower Lake Creek should be included. So that's my two cents.

KEN HOGAN: So we'll revisit it.

All right. Anything else we need to cover on project boundaries? Is that it?

Any other comments on how we evaluated the

project boundaries and necessary project facilities?

(No response.)

KEN HOGAN: No? Okay.

DAN ROSS: One more. Dan Ross.

We agree with you on Snyder Road. I don't know how we got across --

KEN HOGAN: Yeah, you know, when you said that, I was starting to think, well, I don't think we did that.

BILL KIEL: We didn't comment either.

KEN HOGAN: All right.

I guess we can move on to clarifications of our alternatives discussed in the DEA.

JOHN BLUM: We got this done if you want us to --

KEN HOGAN: Okay. Let's do down-ramping rates, then.

You're up.

JOHN BLUM: Okay. So people know where this came from, we did an instream flow study on the lake stream. There were four different study sites. The upper one, study Site 4, had 11 transects. These went from immediately downstream of the drop structure down about 1,000 feet. We did three calibration flows with different stage of discharge relationships for each one. The mean error on stage discharge are all less than 5 percent.

So what I did is I went back into the model

and calculated in this first group of data what the water surface elevation would be for each one of these transects. They're all modelled independently. They're not all tied to a benchmark. So differences between transects doesn't mean anything.

But I was able then to calculate what would be the stage, the water surface elevation on these 11 transects at flows of 20, 15 and 10 cfs. And those are the numbers that you see in that first group there.

What I did then down below is I looked at what was the change in stage in feet from, say, 20 to 15 and then from 15 to 10. So you can see at transect 1, the change in stage was 15/100 of a foot when you went from 20 cfs to 15, and it was 2/10 of a foot when you went from 15 to 10.

And then what I did is I calculated what that change in stage was by inches in the last series of columns there. So you can see that again transect 1, there's a change in stage of 1.85 inches as you went from 20 to 15 and a change of about 2.4 inches when you went from 15 to 10, so I made those calculations for all the transects.

And down below there, you can see that the mean change stage in inches was about 1.6 inches for that study site when you went from 20 to 15 and just a little over 2 inches when you went from 15 to 10. I started looking at the other study sites, then, and factoring in some inflow.

And this is the one that's most sensitive.

KEN HOGAN: And this study site is...?

JOHN BLUM: Right below the draw structure.

KEN HOGAN: Okay.

JOHN BLUM: Because there's no inflow up here. Everything comes from the dam at this point.

KEN HOGAN: Has this been filed, John?

JOHN BLUM: This information -- all the information was filed with the Instream Flow Report, but this analysis here was the first time anyone asked me to do that, so this is the first time we've seen this, the first time I've seen this.

KEN HOGAN: Okay. Can it be filed?

JOHN BLUM: Sure.

KEN HOGAN: Okay.

Anybody have any comments on this? Mark?

MARK HUNTER: I would like to just go over the times of the year in which those changes occur. I don't have it in my memory, John.

JOHN BLUM: Okay. I've got it right here. From September 15th you're at 20 cfs. And on September 16th, it changes to 15. And then from September 30th, you're still at 15. And October 1, it goes to 10.

MARK HUNTER: Okay. So we're not in fry emergence for the anadromous fish.

JOHN BLUM: No.

MARK HUNTER: And that's borderline for the residence fish.

JOHN BLUM: Right.

KEN HOGAN: So with this new information, folks feel that ramping rates are needed or not needed?

You want to get back to me on it?

MIKE GERDES: This is Mike Gerdes with the Forest Service.

I'd like a chance to look at this data and talk with our fish biologist and then go from there.

KEN HOGAN: That sounds great.

MIKE GERDES: I guess I have one question for John. With the change in stage that your mean there is, is that dewatering that reach? Is there still cover on that reach? I know it shows stage change, but is it dry? Is it -- do you have any idea?

JOHN BLUM: I can bring up the cross-sections for you, but that's more water than it has currently, so it doesn't dry out. But it will -- the banks will be somewhat more exposed. There will be more water than there is now, though.

MIKE GERDES: Right. No, I understand that.

GEORGE GILMOUR: But you're not talking about like a couple tenths of a foot, or a tenth of a foot, at most with

a stage change in your transect that you talked about? Is that what you said?

KEN HOGAN: Two point.

JOHN BLUM: If you go back. So this is the change in stage. I can look at what the change in what areas, too.

MIKE GERDES: Okay. That would be good. I think Ken would like that.

BILL KIEL: That's instantaneous change?

MIKE GERDES: Right.

RUTH TRACY: This is Ruth Tracy from the Forest Service.

Am I understanding this right, John, that one and a half inches is the change between changing from 20 to 15 total? Not on an hourly basis.

JOHN BLUM: Correct. No. That's just what that absolute change in stage is.

BILL KIEL: Instantaneous?

JOHN BLUM: Yeah, instantaneous.

KEN HOGAN: And it looks like worst-case scenario is two and a half inches -- or tenths?

JOHN BLUM: Yeah. 2.45 inches. Yeah, two and a half. These are wider transects, too, from the top, so that's why you see those.

MICHELLE DAY: Michelle Day, National Marine Fisheries Services.

So when you say it's instantaneous, is that what occurs out on the project, or is there a timeline? So this is not necessarily worst-case scenario, or is it?

JOHN BLUM: Well, this is saying what would happen if everything stays the same in that cross-sectional area, which it should out there, what would that change of stage be if you lowered it from 20 to 15 cfs. So that's kind of the -- it's not a worst case. It's what actually happens on those transects.

MICHELLE DAY: And how quickly is that project able to make that change?

JOHN BLUM: Is that something that could be done like right away, Dan?

DAN ROSS: From the bypass?

JOHN BLUM: Yeah.

DAN ROSS: Yeah. Randy can control that.

MICHELLE DAY: I'm not actually encouraging you to do it right away. I'm just trying to understand what this means. If it takes you awhile to decrease flows from 20 to 15 -- and you're shaking your head no?

KEN HOGAN: It's just a matter of closing a valve.

MICHELLE DAY: Okay.

(Simultaneous cross-talk.)

RANDY CRAWFORD: -- and then it has a motor operator in it, so you pull it as you try to get it back

down.

MICHELLE DAY: Okay. Then I understand these numbers.

UNIDENTIFIED SPEAKER: And Randy's getting older, so it takes longer to move that.

RANDY CRAWFORD: It's hard to do.

MICHELLE DAY: Yeah. Where it used to take 30 seconds, now it takes a minute?

So the other point I wanted to say is we also would like to take in this information and get back to you on what we think about the down-ramping.

KEN HOGAN: Okay.

MARK HUNTER: And just looking at this, there are only two down-ramping periods of concern. And it's that September 15th and then again at the end of September.

DAN ROSS: Correct. And May.

MARK HUNTER: Other than having someone set up the power at the intake structure for three hours to ramp it down three steps, it's not a great hardship, so I don't -- we can -- I guess you can look at the effects of the -- at the gauge down in the anadromous reach, or you can just make -- stage it in three steps over two hours.

DAN ROSS: Dan Ross.

Remember, the configuration up there, Mark, we have kind of a little stilling basin below the drop

structure that that bypass valve goes into. So it's kind of like a bathtub, you know, kind of like slowing the flow down in your bathtub. You're still getting flow over the top, but it -- you know, it will equalize eventually.

MARK HUNTER: The rest of the ridge is narrow and confined --

DAN ROSS: Right.

MARK HUNTER: -- which will generally stay -- which will generally propagate fluctuation pretty far. Until we have the data, it's hard to say how much.

DAN ROSS: Yeah. Like you say, there's only two instances where we'll, you know, have any potential for that, so we can work out something to watch that.

MICHELLE DAY: Michelle Day, National Marine Fisheries Service.

So there's only three, right? There's one in May and then there's the one --

DAN ROSS: May, June --

MARK HUNTER: I would argue that the inflow is fairly consistently high at that time of year. Now, when you get into September and October, it's likely to be dry in most years, not all years. But it's more of an issue then.

MICHELLE DAY: That's helpful.

KEN HOGAN: So Mark, in May, you feel that where they're down-ramping from 15 to 10 that there's going to be

spill flow in there anyway.

MARK HUNTER: What is that?

KEN HOGAN: In May where they're down-ramping from 15 to 10, you feel that there's probably spill flow occurring there anyway?

MARK HUNTER: There's enough -- I'm going to argue there's probably enough inflow to kind of neutralize any ineffective ramping.

What do you think, John?

JOHN HART: I would agree in the bottom mile. But in the upper 1,400 feet or so, the spill does not happen to -- it happens about every other year, plus or minus, and the upper 1,400 feet would be largely dependent on flow released.

DAN ROSS: Dan Ross, Energy Northwest.

So we can do -- it wouldn't be difficult to do incremental changes when we lower the flow. You know, do incremental changes over a period of time, a couple cfs an hour or something until you reach 5.

MARK HUNTER: (Nods head affirmatively.)

KEN HOGAN: John?

JOHN BLUM: John Blum.

I just looked at the hydrology for the reach. And in May, the 50 percent exceedance flow there is 3 and a half cfs down to Study Site 3, and you have as much as 29 cfs

down at Study Site 1. So pretty much you've gained everything you've lost plus some by the bottom there.

KEN HOGAN: I think we'll look forward to any comments the agencies want to provide, but I think we've got the information. And if you'd file that, John, I would appreciate it.

JOHN BLUM: Okay.

KEN HOGAN: We will certainly look at the need for the down-ramping and, you know, if so, how it should be done. Okay?

All right. Next is for us to clarify our alternatives discussed in the draft EA.

Forest Service, in their comments, correctly pointed out that we had in one section of the EA said that we were looking at a "no action," the "proposed actions," the "staff recommended," and "recommended with mandatory conditions." And that's how we started out, but when we realized that our recommendation was so close to the "recommended with mandatory conditions," we decided to drop that alternative and just kind of do a couple outliers as a standalone. So rather than carry four alternatives all the way through, we wanted to just carry through the three. And we erred in leaving in reference to it.

The Forest Service has asked that we carry all four through, but we would rather not. It seems like a

lot of extra paper for us and -- because there were only a couple of outliers where we deviated from the "recommended with mandatory conditions."

And then would that be okay to Forest Service?

MIKE GERDES: Yeah. Mike Gerdes, Forest Service.

That's fine as long as you just clarify the course that you took.

KEN HOGAN: We will fix it.

MIKE GERDES: Now, my entire intent there was that, you know, with the interagency task force that occurred here awhile ago --

KEN HOGAN: Yeah.

MIKE GERDES: -- the Forest Service dropped its independent NEPA analysis of its terms and conditions and is relying on FERC to do that analyzing inside the NEPA document. That was the intent behind our very pointed comments, was that for us to feel that our terms and conditions are adequately analyzed within this document. That's why I was being so specific here.

That way, then, we don't have to do another decision document. We can just say FERC's analysis is adequate. It looked at all of our terms and conditions, gave a good reference within the document, you know, used the same public scoping process that FERC has done here, and then

we're done.

KEN HOGAN: Okay. So Mike, given the analysis that we have in there, if we clarify what our alternatives are to be the three, does the document suit your needs?

MIKE GERDES: Okay. Now you're going to put me on the spot.

KEN HOGAN: Well, do you think it does?

MIKE GERDES: I think for the most part, it does, yes.

I think there's a couple very specific areas that I think the analysis could be more detailed to really dovetail and identify the specific terms and conditions, but I'd have to go back in my notes here. I don't remember everything that I wrote.

KEN HOGAN: Okay. Well, we would be happy to hear that, because anything that we can do to facilitate your process and the overall process, we would like to do.

MIKE GERDES: Okay. Well, let me go back and review what I wrote, because there were some very specific points that I felt need clarification inside the document.

KEN HOGAN: Okay.

GEORGE GILMOUR: This is George Gilmour.

You know, I remember reading your comments, and certainly I think we're willing to address some of those specific points and to expand our analyses where you

identified you'd like to see an expansion. I think we're trying to avoid a complete restructuring of the document, though, and that's -- we don't necessarily want to go there.

MIKE GERDES: No. I understand that. I think that clarifying that we're going to stick with a narrower scope of alternatives and then more specific analysis within the context that you have there, I think we'll be fine.

KEN HOGAN: Okay.

KRISTIE MILLER: This is Kristie Miller with the Forest Service.

Just so I understand, which are the three? The "no action" alternative, the Energy Northwest proposal, and which one is the other one?

KEN HOGAN: The "staff recommended."

KRISTIE MILLER: Okay. The one that you called No. 3?

KEN HOGAN: Yeah.

KRISTIE MILLER: Or the "staff alternative with mandatory conditions"?

KEN HOGAN: No. We're not doing the "staff alternative with mandatory conditions."

KRISTIE MILLER: Okay.

KEN HOGAN: Because they were so similar, we didn't feel the need to carry through with four alternatives all the way through.

KRISTIE MILLER: I absolutely agree with you.

KEN HOGAN: Okay. We're moving right along here.

We're on to open discussion with DEA. Does anybody here have any questions about what we did or have concerns with what we're recommending?

(No response.)

KEN HOGAN: That good, huh?

MIKE GERDES: I've got to look.

DAN ROSS: I think you have -- Dan Ross.

I think that we addressed everything in our responses from the Energy Northwest side.

KEN HOGAN: Well, we wanted to try and tease out the main points that we saw, but we just wanted to throw this in there as a catch-all, so...

GEORGE GILMOUR: This is George Gilmour from FERC.

I guess a quick question for Mike, the Forest Service, regarding Condition 9, the entrainment condition.

When you put together your revised condition, we talked about already you put some side boards and some direction that you identified. Any way that could be clarified or any of the steps could be clarified in the -- I don't know, is there an opportunity for another filing? I guess there is.

KEN HOGAN: Sure. They can file whatever they want whenever they want.

GEORGE GILMOUR: We appreciate detail. Let's put it that way. It's a lot easier for us to analyze something that's fairly specific and outlines the direction you're moving in: What happens if this happens; what happens if that happens.

It's the challenge for FERC staff to simply analyze a plan, and we've been running into that a fair amount.

KEN HOGAN: Yeah. I think that, you know, knowing about the one and a half percent of the population of the lake, how often that the lake population would get monitored, it's those types of things --

GEORGE GILMOUR: That helps, yeah.

KEN HOGAN: -- we're really looking for.

MIKE GERDES: Mike Gerdes, Forest Service.

I understand that need. When we drafted this modified, we had a very narrow window to meet the timeframes, and our conversation with the workgroup here was that we would put this in with, you know, these side boards today, knowing full well that between now and license issuance, we would start drafting that plan, so we put some meat on the bones there. And, you know, we have not talked about our next meeting date, when we actually will sit down and start writing this.

But by putting that within three months of

license issuance that the plan would be implemented, we were hedging the bet that we would have the plan written long before license issuance. It won't probably be timely for the final analysis that you're looking for, but we intended to do all this pre work.

GEORGE GILMOUR: Okay. So it would be provided in the level of detail that probably would help with -- well, license article preparation is going to be part of the --

KEN HOGAN: Well, we won't have a license article if it's a 4(e), so...

GEORGE GILMOUR: Yeah, that's true. Okay. I think -- I mean, I think --

MIKE GERDES: I know you like to see the plans prior to this, and, you know, just with the time constraints, we haven't done it yet.

KEN HOGAN: I guess what would help us, or where we're going with this, is we need to evaluate why your recommended alternative or measure is better or as good as the State's recommendation for the full-blown screen, so we need to be able to have the information so we can do those comparisons and do that analysis.

Does that make sense?

MIKE GERDES: Mike Gerdes.

Yes, it makes sense. I would have to go back in the justification statement that we supplied with the

terms and conditions. I can't remember the level of specificity we put in the actual justification itself. We might take a look at it. It won't put any more meat on the bones, but it gives our rationale of why we went this way.

KEN HOGAN: Okay. All right.

DAN ROSS: Dan Ross, Energy Northwest.

I think we got pretty -- relatively specific, Mike, in the final draft of your Condition 9. I think we were -- I looked at it the other day, and it says we will do this and we'll do, you know, hydroacoustics, and we'll do fish counts and things like that. It's just, we gave ourselves the leeway to do -- to sit down as an aquatics group and put the specific details into those monitoring programs. But the basic overall monitoring is pretty clear in the Condition 9.

KEN HOGAN: And what we would be looking for is the frequency. I'm not sure if you've got it or not in there, and the side boards, the one and a half percent. And I read your comments awhile ago, so I'm not sure if it was in there or if I just missed it or have forgotten it.

You know, that was interesting to me, okay, one and a half percent based on the population. If that's all in there, great.

MIKE GERDES: Mike Gerdes with the Forest Service.

When -- we -- yes, we had a narrow window,

but we tried to add a lot of specific bullets in there to the lake monitoring, not only for hydroacoustic but the spawning surveys to relate back to the hydroacoustics. We did put in the one and a half percent as a threshold for impingement based on lake population.

KEN HOGAN: Okay.

MIKE GERDES: So those specific elements are there. It's just, you know, I don't know that we actually said how many days a week we're going to be out there. We haven't agreed to that yet.

KEN HOGAN: Okay.

MIKE GERDES: But I think the structure is there to do so.

GEORGE GILMOUR: Okay.

KEN HOGAN: That will work for us. We'll make it work.

Any other --

JOHN HART: And as for Condition No. 9 modified, is there any cost estimates available or ideas of...

MIKE GERDES: Mike Gerdes with the Forest Service.

No. We did not put a cost estimate with that.

GEORGE GILMOUR: This is George Gilmour with FERC.

John, I think he provided a cost -- or Energy Northwest did. Someone did.

DAN ROSS: We did.

GEORGE GILMOUR: Okay.

DAN ROSS: We did provide some estimated cost. We know what hydroacoustics based on performance of those already, and then some spawner surveys, which we didn't really support spawner surveys because of the cost of the spawner surveys as opposed to the hydroacoustics.

So anyway, there's some numbers out there for you, and our response to the DEA.

KEN HOGAN: Okay. So any other comments, concerns, or compliments on the draft document?

(No response.)

KEN HOGAN: None at all? Okay. That's a win in my book.

MICHELLE DAY: Michelle Day, National Marine Fisheries Service.

I do want to ask a clarifying question on the discussion about the four alternatives and the three alternatives.

KEN HOGAN: Okay.

MICHELLE DAY: What you were saying is -- is this correct: You're saying that the one identified on 3, being Energy Northwest proposal with staff modifications, and then it says a staff alternative, that's the one that is going to be -- that is in the DEA and which is going to be carried

forward.

The one that's not is the "staff alternative with mandatory conditions," although it's not exactly accurate to say it's not being carried forward. It's specifically not named as it's being addressed, but it's equivalent to No. 3 and that's why you're not doing it.

KEN HOGAN: Okay. It's not equivalent, but it's so close -- and I'm not sure which -- well, originally it was the fish screens. And what was the other item?

JOHN HART: Ramping.

KEN HOGAN: And ramping where our alternative differed from the "staff alternative with mandatory conditions."

So everywhere else, we were the same with what was being recommended by the mandatory conditioning agencies. So because there was only those two items, when we set up the document originally, we had all four, because that's just kind of our standard practice. And when we started drafting, we said, well, this doesn't make sense, it's just these two items, so we didn't want to carry forward all four alternatives.

We could analyze those two outliers kind of independently of the three alternatives. And then what we erred in is we didn't take out the reference to the fourth alternative in that introduction area.

MICHELLE DAY: So how you're going to proceed is you're going to explain what you just explained in the final?

KEN HOGAN: I don't think we'll admit to having made any errors.

MICHELLE DAY: Not that there was an error, but just to explain that all of the pieces have been analyzed.

KEN HOGAN: Yes, yes. We will do that, right, John?

JOHN HART: In what will probably be Appendix D, we will be summarizing some of the comments. And in that section, we will explain our mistake on Page 1 or so.

MICHELLE DAY: And my purpose isn't to point out a mistake. It's just to make sure it's clear in the end that all of the measures were addressed.

KEN HOGAN: We will set it up in Section 2 where we specify that we'll clarify that the staff recommended alternative is the same except for wherever we fall out. I mean, it's still a draft, so we could go with fish screens or we could go with ramping rates or get rid of them, and then it's all the same. So wherever we come out, we'll clarify in that section.

MICHELLE DAY: Okay.

KEN HOGAN: Okay? Any other questions or comments? George?

GEORGE LEE: Yeah. In previous discussions --

George Lee with the Yakima Nation.

In previous discussions that we had, the Yakima Nation had talked about the boundary and that Lower Lake Creek be included as part of the boundary because it affects Lake Creek. It affects the anadromous species that are being reintroduced back into the system, and so we would like to agree with Forest Service that -- and FERC looks into this as being a part of the process.

KEN HOGAN: Okay. Well, I'm going to propose that we move on to our next three items and then, you know, if we have to postpone lunch a little bit, do so, and then get out early.

Does that work for everybody else?

(No response.)

KEN HOGAN: All right. So our next item is under "Other Issues." It's status of the 401 Water Quality Certificate. And with that, Eric, I would like to hear a status report, and if you need -- and let us know if you need any information from us that will facilitate your processing.

ERIC SCHLORFF: Eric Schlorff with Department of Ecology.

Let's see. I think it was -- was it Thursday? Yeah. Last Thursday I sent a draft for a two-week review to Energy Northwest. And after that, we'll get it back, look at it, and then release it to a one-month public

review. So it depends on how long -- you know, whether there's a bunch of changes to make, hopefully not a lot, and be able to get things together.

I've got the list ready to go to send to -- it's a public mailing, but it's mainly these people and whoever else was on the FERC list and on the Energy Northwest list. So coming up soon, we're going to get this thing out.

KEN HOGAN: So you don't need anything from us to facilitate that or...?

ERIC SCHLORFF: No. Our deadline is -- we've got to have this thing out by August 7th.

KEN HOGAN: So that -- after your one-month public review, do you have -- typically how long does it take you to turn these around?

ERICH GAEDEKE: Depends on how many changes there are if needed, so we're hoping there's not a lot and...

KEN HOGAN: Just rubber-stamp it, cross out "draft" and put "final" on it?

ERICH GAEDEKE: That's right.

KEN HOGAN: Okay. Great. NMFS with their biological opinion?

MICHELLE DAY: What was the question again?

I'm kidding.

ALICIA BISHOP: I started on the biological opinion and was looking forward to meeting all of you so I

know who to address as questions arise. So far we're on track, but it's hard to tell with the amount of internal review, that we didn't really go into it.

KEN HOGAN: Okay. So right now we've got your letter that basically says you've got all the information you need, and you started the clock. And that was a month, two months ago.

Have you come up with any new information needs that --

ALICIA BISHOP: Not yet.

KEN HOGAN: -- we can facilitate with?

Great. Now, I told you I've got a bet with my boss. We bet lunch, so...

We get to buy up in 135 days. He took the opposite approach. We look forward to that.

MICHELLE DAY: And when did your 135 days start?

KEN HOGAN: You guys set the clock.

MICHELLE DAY: Yeah, but when did you receive the letter? I am kidding again.

KEN HOGAN: I think the date was June 22nd. Does that sound right?

All right. Now, something we didn't have on the agenda that we added was the Commission issued a letter to the Forest Service clarifying our regulations on the ILP, integrated licensing process.

The ILP does not have provisions for final terms and conditions. It has preliminary and modified. And the Forest Service's schedule for their 4(e)s was preliminaries, modifies, and finals.

So with that, Mike, you wanted to kind of talk about that letter?

MIKE GERDES: Mike Gerdes, Forest Service.

At this point, the Forest Service is very satisfied with its modifies and preliminaries that we submitted both at the REA and at the Draft Environmental Document, and we do not anticipate filing any final terms and conditions unless, unless there's new information that's provided in the final environmental document that differs significantly.

That would be the only change for filing any finals. And we have a response letter for you. We can give you a copy of that today, but I'll be e-filing that probably next week.

KEN HOGAN: I think that's fine. If I got a copy, then I've got to give it to the court reporter, and they get lost.

Nothing on you.

MIKE GERDES: So we'll just anticipate that we'll be filing that letter next week.

KEN HOGAN: Okay.

MIKE GERDES: And it says the same thing, we're satisfied with our preliminaries and modifies everything we've seen to date. We don't anticipate a change unless there's a major shift in the final environmental document.

KEN HOGAN: Great. Okay.

Well, with that, is there anything anybody wants to discuss? Mike?

MIKE GERDES: Mike Gerdes, Forest Service.

In our comments that we submitted at the EPA, through the different sections that I had in there, I was very specific on those areas that needed a little bit more analysis for our terms and conditions.

Specifically, on Page 9 of the 28-page document, I look at things like the kiosk construction and toilet construction, the screen gauge installation, Snyder Creek fish passage channel reroute. It's those specific elements that, because we had them in a term and condition, needed to be highlighted.

KEN HOGAN: What do you mean by "highlighted"?

MIKE GERDES: Well, more discussion on any potential effects.

KEN HOGAN: Of the actual construction on --

MIKE GERDES: Yeah, on the action itself. They were mentioned inside the document, but there wasn't really an analysis of it of what the effects could be by

implementing those actions, and that's what we're looking for.

KEN HOGAN: The short term, you know, sedimentation with the gauge and construction, that type of stuff?

MIKE GERDES: Yes. And any relation to heritage resources, if there's any conflict there.

KEN HOGAN: So requiring site surveys prior, that type of...

MIKE GERDES: Mm-hm.

KEN HOGAN: Okay.

MIKE GERDES: You had asked me where I had the specifics, and that was some of the stuff I was looking at.

KEN HOGAN: Yep. All right.

Well, I think with that -- am I forgetting to go back to anything that we said we'll revisit?

(No response.)

KEN HOGAN: Great. I'd like to bring the meeting to a close and thank everybody for coming and working so well together. This has really been a great project to work on, and I probably won't be back to see you again, but it's been a lot of fun for me and just a pleasure. I wish they all went this well. So thank you.

(Whereupon, the meeting was concluded at 11:46 a.m.)

CERTIFICATE

I, Tia B. Reidt, do hereby certify that pursuant to the Rules of Civil Procedure, the witness named herein appeared before me at the time and place set forth in the caption herein; that at the said time and place, I reported in stenotype all testimony adduced and other oral proceedings had in the foregoing matter; and that the foregoing transcript pages constitute a full, true and correct record of such testimony adduced and oral proceeding had and of the whole thereof.

IN WITNESS HEREOF, I have hereunto set my hand this 4th day of May, 2009.

/Signed

Tia B. Reidt
Commission Expiration: June 03, 2010