UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

Office of Energy Projects

Division of Hydropower Licensing

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Public Utility District No. 1: Project No. 13948-002

of Snohomish County : Project No. 13994-002

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Calligan Creek Hydroelectric Project

Hancock Creek Hydroelectric Project

North Bend Rail Depot

205 McClellan Street

North Bend, Washington

Wednesday, February 27, 2014

The public scoping meeting, pursuant to notice, convened in the North Bend Rail Depot at 9 a.m., before a Staff Panel:

KELLY WOLCOTT, Project Coordinator, FERC

DIANNE RODMAN, Terrestrial Biologist, FERC

MIKE TUST, Fisheries Biologist, FERC

SEAN O'NEILL, Civil Engineer, FERC

Also present:

DAWN PRESLER, Snohomish County PUD No. 1

KIM MOORE, SnoCo PUD No. 1

SCOTT SPAHR, SnoCo PUD No. 1

KAREN BEDROSSIAN, SnoCo PUD No. 1

JASON COHN, Tollhouse Energy, Black Creek Hydro

BROCK APPLEGATE, Washington DFW

P R O C E E D I N G S

MS. WOLCOTT: Good morning. Thank you for coming out. My name is Kelly Wolcott, I'm the Project Coordinator for Calligan and Hancock. I'm also a terrestrial biologist with the Federal Energy Regulatory Commission. With me today is Dianne Rodman, she's a fellow terrestrial biologist; Sean O'Neill, who is our civil engineer on the project; and Mike Tust, who is our fisheries biologist.

And before we all get started, we have a sign in-sheet which I think is being taken care of, and copies of the scoping documents. So with that, we'll go ahead and get started with a short presentation by Scott for the Snohomish Public Utility District No. 1 for Calligan.

[PowerPoint presentation]

MR. SPAHR: Thank you. I'm Scott Spahr, the Generation Engineering Manager for Snohomish PUD, and in light of the audience, I'm going to try to keep this to a brief overview of the project, because I think most of the audience knows that there's specific questions that come up or if more public comes in, I'll add more detail at the end.

So just really quickly, I'm going to go through who the PUD is, general layouts in the project, and then the resources that are there.

So Snohomish PUD was formed in 1936. We're a

not-for-profit public utility. We started electric service in '49. We're managed by a three member Board of Commissioners. We have about 320,000 electric customers; we serve Snohomish County and Island County. Just portions of Island County.

So in 2007 our Board passed a climate change initiative, and that meant that all our load growth could be met by either the primary focus is cost-effective conservation and the secondary focus would be to have carbon neutral resources; so we've been looking at a broad range of renewables from tidal to geothermal, pumped storage, to -- we have the largest portfolio of wind of any utility in Washington State. And then our small hydro program.

So the two projects were selected after doing background effort with interested stakeholders and agencies and tribes. They're located 79 miles north of the City of North Bend, where we're located today; they're surrounded by managed commercial forestry lands owned by Hancock Forestry.

So this is the layout of the projects; and the history of them, we're making application that is very similar in respect to the projects that were issued FERC licenses in 1993; Black Creek was pursued and issued a license in 1988 by the same developer, and the intention was at that time to develop all three.

They constructed Black Creek, they put in the

buried transmission line to accommodate all three projects, and then the FERC licenses for Hancock and Calligan subsequently expired.

So both projects are run-of-the-river, 6 megawatt nameplate capacity, both in the range of 21 to 22 gigawatt hours on an annual average, and the levelized cost is in the range of $77 to $88 per megawatt, which is comparable or better than the other renewables that we've looked at.

So Calligan Creek, this is the broad summary. We'd have a diversion eight feet high, a two jet Pelton unit at the powerhouse, 6300 foot penstock, which consists of a 45-inch diameter low pressure section, 41-inch diameter high pressure section, and a drop in that of over a thousand feet. And a two and a half mile buried transmission line.

So this is the general layout, as those who have been to the site recently are aware, there's a lower plateau where the powerhouse is located and then a steep kanu wall {ph} that was glacially formed, and then a broad plateau at the top of the hill; so there's the intake location, the penstock, and the powerhouse, and then the buried transmission will go to the point of intersection with the existing Black Creek transmission line.

This is a look at the intake. As we submitted to FERC earlier in the week, we've modified that with our resubmittal to the additional information request, and

deficiency request, to also update what's being proposed there. So it's integrating an upstream fish passage or additional fish passage into the facility. The preference is to make that a rough-in-channel design. So you see the layout here; there is about a quarter acre pool upstream, a concrete wall, and then a rough-in-channel section downstream that will be used for both the minimum stream flow release and for fishery passage. And we incorporate fish screens and then the penstock into the powerhouse.

So the next couple slides are just looking at the condition of the penstock corridor. So as you see, it's in a managed commercial forest, and we've altered the penstock alignment to avoid critical areas to the extent that we could.

Powerhouse is 60 feet by 48 feet; we copied the design that we used at Yince (ph) Creek; it's a cement masonry unit building with a metal roof, and there you see the tailrace that would turn back to the creek. Also point that again we modified our FLA application with a recent submittal to add a tailrace barrier that is placed as close to the creek as possible, and it would exclude any fish that were present.

The transmission line would be buried in the existing roadway prism; it would actually attach to the bridge that crosses Calligan Creek in a metal conduit, and

then be buried the rest of the way where it will tie into the Black Creek vault.

Geologic Resources, as I mentioned earlier, the primary driver in creating that steep hill slide was glaciation that pushed up a glacial till at that steep slope ten to twelve thousand years ago. There is a rock outcropping at the base, at the powerhouse area.

This gives you an idea of the topography again, as I described there's the upper plateau and the lower plateau, and then a steep gradient in between. And as I mentioned, these are run-of-the-river facilities, they typically operate roughly nine months out of the year. You see the median hydrology represented and then the instream flows, which are twofold for the project; there's a base, an instream flow at the diversion site and then one where the springs and tributary enter the system and you see the area in the mid to late summer to early fall where in a typical year the project could be shut down.

Now we're going to switch to Hancock Creek. I'll go through this one quicker, because most of the material is the same. So this one, really the only difference is the diversion height is a little bit lower, six feet tall. The total fall is nearly similar, but a little bit more; 1,110 feet.

So the layout is again very comparable.

That is an aerial image showing the location of the intake structure downstream at Hancock Lake.

Again, same layout, same conceptual idea that we're providing fishery passage through a rough-in-channel passage.

Again, photos of the proposed penstock alignment and photos of penstock construction and showing the steep gradient that we will be looking at there.

Powerhouse is identical in footprint but specific to the topography at the Hickock site.

And the transmission line is about a quarter of a mile, and again would tie into the same point, the switching vault that comes out of Black Creek.

Geology is the same as, or very similar to Calligan Creek. And the slope is as well.

Again, got the same figure representing minimum stream flows, the distinction between Hancock and Calligan Creek is that there's a single instream flow for the project; so we measured just downstream from the intake facility.

So I'm going to go through the existing environmental resources; they are consistent with managed commercial forest here in the Northwest; there were no endangered or threatened species that have been documented within the project boundary. There are loons that are

documented on Calligan Creek? Both lakes.

Proposed PM&Es is limiting the clearing limits, and as I've described, we really strongly went to avoid versus mitigate, so we adjusted our penstock alignment to minimize impact to critical areas and buffers.

We have just this week filed our resource management plan, and that indicates that we would let the area recruit with shrubs, forest and grasses.

MR. COHN: Thought you might mention that there will be no motorized traffic on that penstock right-of-way.

MR. SPAHR: That's correct. Yes, I think that we've got that in the Recreation.

So Recreation Resources, the area is a managed forest land, Hancock Forestry Management does issue access permits to users that want to pay to go in and use the area. Our intention is that those users would not see the effect of our project; so the conditions that Hancock Forestry puts on that access, we wouldn't restrict access to those. Our penstock would be non-motorized access.

MS. BEDROSSIAN: Except for when the access road crosses into that -- fence.

MR. SPAHR: Correct. So I think I've just described our PM&Es would be consistent with Hancock Forestry Management's policies.

So Fisheries and Aquatic, the projects are

located upstream of Snoqualmie Falls, about nine miles. Snoqualmie Falls acts as the anadromous fish barrier, so the fishery resource is limited to resident trout. As seen in the gradient pictures, there is a resource that is in the lakes and spawns in the outlets to the lakes, and then there's a very high gradient section and then there's the fishery resource in the North Fork.

So our PM&Es would include fish screens, would include fish passage and also include an instream flow adaptive management plan, and that would measure the population dynamics in the pools, in the bypass reach, and adaptively manage the instream flow release if there was a population decline in those fishes.

Cultural and Tribal Resources. There were no historic properties identified in the '90s and 2011 studies. Our proposed PM&Es are to put in a unanticipated discovery program into the contract.

So recapping, as further described in the Terrestrial Resource Management Plan, collectively between the projects we would set aside 14.61 acres of mitigation land to be preserved to grow to old growth forest. We would include our adaptive management plan for instream flows, provide fish passage and a tailrace barrier, and grant permission to the project.

And I'll turn it back over to FERC.

MS. WOLCOTT: Thank you, Scott.

So the whole purpose of our holding these scoping meetings is to receive public input via comments or we solicit additional information, let you know what we've come up with from preliminary findings, the issues we've identified as first blush with reviewing the license for adequacy.

I was going to go through the proposed environmental measures, but I realized our scoping document, which we made like a month ago or something like that, is not reflective of the new filing; so -- I think some of these have been updated, your proposed measures from what we had originally in the scoping document.

MR. SPAHR: I think there would be only additions.

MS. WOLCOTT: Right. So if everyone is agreeable, I might just skip over the proposed environmental measures, because Scott covered them well.

MS. RODMAN: It looks like, because of the additions, that we probably are going to do a Scoping Document 2,

MS. WOLCOTT: Okay.

MS. RODMAN: You know, and if we get, certainly if we have any substantial comments from the agencies or the public, then we need one anyway.

MS. WOLCOTT: Yes. So is everyone okay with moving on to Resource Issues?

Okay, we'll do that. And with some variation, it looks like the resource issues that we've identified are pretty much the same across the board, and I might invite Mike Tust up here with me to discuss cumulative effects, because we've identified water quality and fishery resources as resources that might be cumulatively impacted or affected by these effects So I'll let Mike talk about that a little bit.

MR. TUST: So for Cumulative Effects, you know, obviously according to the Council on Environmental Quality;s regulations, cumulative effect is the effect on the environment that results from an incremental effect of the action when added to other past, present or reasonable foreseeable future actions, regardless of what agency, federal or non-federal. If a person undertakes such actions, cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

So based on our review of the license application and preliminary staff analysis, we've identified water quality and fisheries resources as the resources that may be cumulatively affected by the close construction and

operation of the projects, both Calligan and Hancock, the cumulative effects. The geographic and temporal scope of the cumulative effects would be the same for Hancock and Calligan.

We've defined the physical limits with the geographic scope as -- well, FERC defines it as proposed actions effects on the resources and contributing effects from other hydropower, non-hydropower activities within the North Fork Snoqualmie River Sub-basin. And at this time we've identified the North Fork Snoqualmie River and associated tributaries upstream of the confluence with the middle of South Forks, as our geographic scope for water quality and fish resources. We chose this geographic scope because of construction and operation of the project in combination with other existing and proposed hydroelectric projects in the North Forks of the Snoqualmie River Sub-basin could affect those resources; and we took into account other contributors to adverse effects such as in the sub-basin, including logging, road construction, residential development and consumptive and non-consumptive uses of the surface water.

For the temporal scope, based on the potential term of the original license, the temporal scope will look 30 to 50 years in the future, concentrating on the affected resources for the reasonable, foreseeable future actions.

This historical discussion will by necessity be limited by the amount of available information for each resource, and the quality and quantity of information, as we analyze resources further away in time.

MS. WOLCOTT: Thank you, Mike. And now we'll just leap right on into some resource issues that we've identified thus far, and we will go ahead and start with geologic and soil resources, and I will give it to Sean.

MR. O'NEILL: Sean O'Neill from FERC.

So in terms of preliminary resource issues that we've identified for geology and soils, based on our review of the final license application, we have identified as potential issues effects from erosion and disturbed soils, the effects from shallow landslides, either from except disturbances or placing excavated soils on steep slopes. Or the effects of penstock rupture and landslides on proximate soil and surface water resources.

MS. WOLCOTT: And then Mike for the Aquatics.

MR. TUST: So for water quality, we identified the effects of project construction activities which would include in-water work, excavation and blasting on water quality including temperatures, dissolved oxygen and turbidity levels in Calligan Creek. Around the project site we also identified effects of project operations including the minimum instream flow releases, ramping, sediment

sluicing, spillway operations, water quality including the effects on temperature and dissolved oxygen, turbidity and dissolved gas in the bypass reach.

For Fisheries Resources, we propose to evaluate the project construction activities on fisheries and aquatic habitat in Calligan Creek, along with the project operations on fisheries and aquatic habitat in Calligan Creek from the Calligan Lake downstream to the project powerhouse.

Are we doing these together? Or are we going to go to Hancock afterwards?

MS. WOLCOTT: I think we'll do what we did last night, and just say how they're different.

MR. TUST: Okay. So then we also are proposing to evaluate the effects of project operations on the upstream/ downstream movements of the resident trout, and other resident fish. Effects of project operation on entrainment/ impingement, corresponding injury and mortality associated, and the effects of project operations on large woody sediment transport and the corresponding effects on fisheries and habitat downstream of the diversion.

MS. WOLCOTT: All right. Kelly Wolcott for FERC.

For Terrestrial Resources, we've identified the effects of the buried penstock right away and associated reduction, and cover on the movements of small animals. We're also concerned about the effects of project

construction operation on wildlife disturbance and the effects of project construction operation on the introduction and spread of noxious weeds. And then I will also jump in and cover recreation and land use, cultural and aesthetic resources.

So for Recreation and Land Use, what effect they identified with effective project construction operation on recreation resources and public access within the project area, including nearby campgrounds, Calligan Lake, and Calligan Lake above the diversion structure, as well as effects of construction operation on land use in the area including commercial forestry and other uses accommodated under the use of a cosnervation easement.

For Cultural Resources, we identified effects of construction operation on historic, archaeological and traditional resources that may be eligible for inclusion under the National Register of Historic Places.

And then for Aesthetics, we identified visual effects of the project facilities including outdoor lighting and construction of these facilities along publicly accessible roads and the North Fork Snoqualmie River at Calligan Lake and nearby campgrounds, or in other areas utilized by the public.

Visual effects of reduced flows in the bypass reach of Calligan Creek during operation, and effects of

noise from construction operation on recreation users at nearby campgrounds or other affected areas.

MR. O'NEILL: Sean O'Neill, FERC.

So Resource Issues, we preliminarily identified for socioeconomics, including effects of the project on local tribal and regional economies, as well as the effects of construction traffic on local and regional road systems.

MS. WOLCOTT: Okay. And then, for Hancock, we wanted to jump into the -- everything is pretty much the same in terms of a project layout, with some variation in the facilities, but the overall area is the same, resource issues are the same for the most part.

Would you just talk about how they're different?

MR. O'NEILL: Sure. So Sean O'Neill from FERC.

In terms of Geology and Soil Resources for Hancock, the Hancock Creek project, all potential resource issues were identified the same between Hancock and Calligan, although the potential impacts from shallow landslides due to construction disturbances or excavated spoils, were not identified as a potential issue with Hancock Creek project.

MR. TUST: This is Mike Tust, FERC. For water quality and fisheries issues, we are proposing to evaluate the same effects for both Calligan and Hancock.

MS. WOLCOTT: And then for terrestrial, cultural,

recreation and aesthetics, I think it was the same with both projects in terms of effects that we have identified thus far.

So again we're here to collect public input and comments. You can file your comments -- we're taking oral comments today at the meeting, but then we're also accepting written comments that can be filed with the Commission, and those comments on Scoping Document 1 and the meeting are due by March 29th of this year. You can eFile them with the Commission or submit them electronically or you can send them in via standard mail. The protocol for filing comments is on page 20 and 21. If you have any questions, I can answer those as well.

So right now we're planning on doing an Environmental Assessment for these projects, as opposed to an Environmental Impact Statement. And we're planning on doing, we are sort of debating whether to do one gigantic, monster EA for them both, or each have their own EA. Either way you slice it, it's going to be a lot of work.

So ultimately we decided that each project will have its own EA and its own docket, so that's how we're going to proceed.

On page 23, we have the proposed EA outline -- but I skipped a page, and on page 22, I apologize, I have the schedule, a rough schedule of how we're going to go

forward in the EA preparation.

And it's going to be the same for both. We're looking to issue both EAs at the same time. So obviously we're having the scoping meeting today in February; and I think in light of what we've said here with the filing by SnoPUD on Tuesday, and then whatever comments are generated, it looks like we are going to have to issue a second scoping document which we will do in April.

Also in April we plan to issue our ready-for-environmental-analysis notice. And then we have the deadline for filing comments, recommendations, and agency terms and conditions in June. We anticipate issuing a draft EA in October, and I'm going to have to check on this date for when the comments on the draft EA are due. It says November, but it might be the month before, which is -- I'm sorry, no; the month after, I apologize, December.

And then we're looking to issue the Final EA in April.

MS. RODMAN: EAs.

MS. WOLCOTT: EAs, plural.

So with that, I guess we can -- oh, I'm sorry, and then we have comprehensive plans. We have a list of state and federal comprehensive plans that -- and there's a list on page 25 and 26 of the ones that we've identified that we think would be relevant, these projects. Those are

the ones that have been filed with FERC; and so if you have any questions, please let me know, and we will go ahead and open up the floor for any comments, questions.

MR. APPLEGATE: Is there a special place to file, for the plans update?

MS. WOLCOTT: Yes, there is a link on page 25 for filing a plan. So you file it with us and then it goes through a review process; you have a set of criteria that we weigh the plan against, and then we make the decision whether to accept it as a comprehensive plan, and then it will be added to our list.

MR. APPLEGATE: This is the same electronic filing link as --

MS. WOLCOTT: I think it's different. I think it has its own separate electronic filing system.

MR. APPLEGATE: Okay.

MS. WOLCOTT: It's not like for filing comments; I think it's its own separate protocol.

MR. APPLEGATE: Thank you.

MS. RODMAN: This is Dianne Rodman. If you're curious about whether we got the correct Washington State comprehensive plans, there is a list of them on our website, by state.

So you can look through it. And you can check and see which plans your state or the federal government has

filed.

MR. APPLEGATE: Okay, so they may not necessarily be listed on Scoping Document No. 1, there's a newer list?

MS. RODMAN: A larger list. We looked through the list and tried to choose the words that we thought were appropriate.

MS. WOLCOTT: So if you want to check that with the master list for the state by what we have here, and if there's anything that we overlooked or, we made the wrong call on whether or not it's applicable, let us know. And that you can do in the comments. And then if there are any additional plans that can be filed with us, by all means please do that.

MR. APPLEGATE: I had two clarifications I was hoping to get from SnoPUD while we're here.

In your final license application for Calligan Creek, you mention the possibility of using these water bars. Keeping in mind that I haven't had a chance to look at your most recent submittal, has it been decided those are going to be part of the design or not?

MR. SPAHR: We didn't alter it with our most recent submittal. What we did generally was took the recommendations from our geotechnical reports for both projects and incorporated those in.

So we haven't altered what was put in the FLA,

would be reflective of what our geotechnical engineer recommended.

MR. APPLEGATE: Okay. Well, in the final license application you state possibly using them? So that's a decision.

MR. SPAHR: Okay.

SPEAKER: That decision hasn't been made yet.

MR. SPAHR: That's true.

MR. APPLEGATE: Okay, fair enough. And then the only other clarification I had was in the final license application for Hancock, your estimate for annual generation varies between your different exhibits; and I was just hoping to get a clarification on what the actual number is that I should be using, and --

MR. SPAHR: Right.

MR. APPLEGATE: So items --.

MR. SPAHR: Yes, it's the 22.

MR. APPLEGATE: 22.1 peak.

MR. SPAHR: Yes.

MR. APPLEGATE: Okay. Very good.

MS. WOLCOTT: Well, I actually had a question for Brock.

MR. APPLEGATE: Okay.

MS. WOLCOTT: You all filed a request for additional studies, I forget the date in this case, but we

had that on our radar and we haven't issued a response letter yet because we are going to use the scoping meeting in considering the request. And to see how you guys were handling that; because I believe you all have been meeting and --

MR. APPLEGATE: Yes.

MS. WOLCOTT: -- has everything been ironed out?

MR. SPAHR: It has. Yes, they've been very responsive to our consultation, and we're not making any additional study requests, or no additional study requests.

MS. WOLCOTT: Okay. So the one that you have filed with us now is --

MR. SPAHR: We'll be issuing a letter. They just put in here --

MR. COHN: We filed Tuesday our revised final license --

MS. WOLCOTT: That was a travel day, so. We got our consolation prize of hard copy filings. Dawn graciously provided us with the copy after she had submitted it to the FERC, since we were on a plane on filing day. So we haven't had a chance to really peruse it all yet.

MR. APPLEGATE: Were you planning to get the letter out next week, probably?

MR. APPLEGATE: Yes. Tuesday is the day we're looking forward for the letter support for the final

license, and then--

MS. WOLCOTT: Excellent.

MR. APPLEGATE: And Department of Ecology is doing things.

MS. WOLCOTT: Okay. Very good.

MR. APPLEGATE: I have one question for you.

If we do not file comments on the Scoping Document No. 1, do we lost standing or intervenor status, or?

MS. WOLCOTT: No. No.

MS. RODMAN: You don't currently have intervenor status; you haven't requested it.

MR. APPLEGATE: Okay.

MS. WOLCOTT: Yes. We did a tendering notice when they filed their final license application, and we were soliciting comments on the final license application. When we issue the REA notice, which should be in April, I believe, according to the schedule in the scoping document, that is where we were solicit motions for intervention. And if you wish to do so at that time, that would be a good time to do it.

MR. APPLEGATE: Okay.

MS. WOLCOTT: Does anyone else have any questions, does SnoPUD have anything that they would like to add?

I feel like the teacher in Ferris Buehler.

(Laughter)

MS. WOLCOTT: Well, I guess one thing to add is that the transcript should be available on our website probably in the next couple of weeks; it will be available for free to download and print off of the FERC website; but if your needs are more immediate, you can make separate arrangements with the court reporter to have that provided to you. However, you will be responsible for any related fees and costs related to that.

But if there's nothing else, I guess we will adjourn the meeting, and I thank you all very much for coming out.

(Whereupon, at 9:39 a.m., the scoping meeting concluded.)