

Packwood Lake Hydroelectric Project
Meeting
July 19, 2007
Lacey, Washington – USFWS Office

Meeting Summary¹

ATTENDANCE

<u>Name</u>	<u>Organization</u>
Laura Schinnell	Energy Northwest
Dan Ross	Energy Northwest
Bill Kiel	Energy Northwest
Bernice Kasko	Energy Northwest
Robert Nielson	Energy Northwest
John Blum	EES Consulting
Cory Warnock	EES Consulting
Pete Rittmueller	EES Consulting
Brian Peck	USFWS
Ruth Tracy	US Forest Service
Karen Thompson	US Forest Service (by conference line)
Ken Wieman	US Forest Service
Charlene Andrade	WDFW
Brock Applegate	WDFW
Cliff Casseseka	Yakama Nation (by conference line)

PRESENTATIONS (available on Energy Northwest's website)

- Lake Creek Instream Flow Study – Identifying Key Issues

HANDOUTS (available on Energy Northwest's web site)

- Lake Creek IFIM Errata and Supplemental Information, Includes
 - Revised Table 2.3-1 Fish Periodicity
 - Revised Table 5.1-1 Apportioned Inflow for Lake Creek
 - Revised Table 5.3-1 Amphibian WUA January
 - Revised Table 5.3-2 Amphibian WUA February
 - WUA for all lifestages per transect grouping or study site
 - WUA for all lifestages per month
 - Transect cross sections with original and enhanced substrate

¹ These meeting summary notes are not verbatim. They do not reflect formal decisions by Energy Northwest, any agency, tribe, non-governmental organization, or interested stakeholder.

SUMMARY OF DISCUSSIONS

- Introductions

Laura Schinnell announced that this would be her last meeting, as she is leaving Energy Northwest on August 3. She introduced Robert Nielson, who is the supervisor of her group, and Pete Rittmueller with EES Consulting, who will serve as the facilitator after this meeting.

- Packwood Lake Hydroelectric Project Overview

Dan Ross provided a summary of how the Project operates. He showed a graph that showed how generation follows inflow to Packwood Lake. When asked if the Project could pass water to Lake Creek during outages, the answer was yes. The Project currently passes the 3 cfs required by the current license. The Project is physically capable of passing approximately 30 cfs, depending on lake level.

When the penstock is drained, there is no water to the tailrace. The tunnel and penstock need to be dry before the inspection can take place for safety reasons. The bulk of the time during the annual maintenance outage is dedicated to turbine runner repair. The centerline of the bypass valve at the intake is at approximately elevation 2846 ft MSL; a calculation indicates that approximately 23 cfs could be bypassed with a lake elevation of 2849 ft MSL. The concept leading to the questions is whether more water could be bypassed in August. There is no physical restriction, but it was agreed that there is limited water to go around.

Power prices are generally highest in July, August, and through mid-September. They drop later in September and October, when no one needs air conditioning and heating. The prices go up again in November, and down again in the spring.

Energy Northwest has observed that when there is a heavy rainstorm, the lake level typically responds within 12 hours; in addition, when there are higher temperatures causing snow melt, the lake level responds within 12 hours. Dan noted that Energy Northwest rarely lowers the lake to elevation 2849 ft MSL.

For 5 MW of generation, the corresponding flow is about 45 cfs. Energy Northwest tries to shut down over weekends if needed, to meet lake levels in August and September. It is really not an option not to run the Project under the current lake level limitations.

- Species and Life Stages

It was decided that at this time, all species and life stages will be considered important. John Blum had checked with John Serl, and updated the periodicity chart.

- Lake Creek Instream Flow

A question was asked about whether Energy Northwest expected to continue operating the Project in the same manner. Energy Northwest responded that the Project will continue to follow inflows; however other changes may be possible. Concern was expressed about providing flows for spring Chinook. Although the pre-Project population was technically zero for the Project because the Cowlitz River Project had effectively stopped passage to the upper basin, it is recognized that the project must account for the reintroduction of salmon. Information on historic runs is in the Pre-Application Document and Fish Species Distribution and Composition Study Report.

Energy Northwest would like to focus attention on restoring and enhancing habitat rather than relying solely on flow. There are three solutions to provide better habitat: habitat improvements; flow levels, lake level, with possibly other factors that Energy Northwest has not yet considered. John Blum showed how with increased structure and gravel on selected transects in Reaches 1 and 5 (Study Sites 1 and 4), spawning Weighted Usable Area increased dramatically. There was discussion on why he chose the transects that he did; he was trying to be conservative and only enhance those transects where habitat enhancement was likely to be effective for spawning; these were presented as conceptual. Improvement in the anadromous zone (Reaches 1 and 2) could give the most “bang for the buck.” Actual transects would be selected in the field with the agencies and tribes. If this is a concept that the group decides is feasible, then Energy Northwest would include adding structure, gravel recruitment, and monitoring to the budget. Energy Northwest understands that this is not a one-time prescription and that there would be monitoring and continuing efforts if necessary. John was asked if the information included rearing habitat. It was focused on spawning, however, rearing would be considered in the field. Large wood debris would be a key factor. A question was asked about the effects of Mt. St. Helens. To the best of everyone’s knowledge, there have been no studies on creeks as a result of the eruption and ash deposition. To clarify the flows, the phrase “as released at the drop structure” will be added. An analysis of wet versus dry year accretion will be made. Energy Northwest has asked John to run a pre-Project IFIM. This would be based on current habitat transects, and may not reflect what the creek looked like pre-Project. It was noted that the Project is not responsible for the lack of large wood debris in the lower reaches.

- Concerns and General Discussion

The agencies and tribes do not feel comfortable providing recommendations, as not all the information is available. They are dependent upon Energy Northwest and EES Consulting for the data. They are concerned that Energy Northwest wants to focus on habitat enhancement with no flow increases. The Forest Service noted that flow had been an issue previously. Energy Northwest agreed, and stated that previously the economics of flow releases was why the release was set at 3 to 5 cfs.

The agencies think that the habitat issue in lower Lake Creek can be addressed by the following:

- A. optimize the aquatic resources
- B. consider changes to operation to get close to (A)
 - a. higher lake levels ... effects to upper lake resources (to be considered)
 - b. higher release flows ... effects to power generation
- C. consider changes to infrastructures
 - a. change diameter of pipe
 - b. lower drop structure

Energy Northwest stated that the shutdown does not have to occur at the time it is currently scheduled. The shutdown could occur from April to October, although April would be problematic depending on snow level and access to the lake. Energy Northwest may not need to drawdown to elevation 2849 ft MSL. Maybe a higher lake elevation earlier in the summer could allow releases to lower Lake Creek in August. Energy Northwest agreed to bring some options to the next meeting.

There is a need to protect rearing juveniles and redds in the tailrace slough. Energy Northwest was asked if they ever considered using a well, or routing some other water to the tailrace. Although looked at briefly, a well really has not been considered because of the water right issues and the size of the pump required to provide a sufficient amount of flow. Although routing Snyder Creek to the tailrace was considered briefly, the flow would not be sufficient, and putting the barrier in at the tailrace would make it a one way out for fish in Snyder Creek.

John Blum noted that he would be out of town July 28 through August 1, and that the agencies and tribes should get their requests to John for IFIM manipulations to him before then.

There was discussion about transport of large wood around the drop structure. Energy Northwest is required by FERC to keep wood from just flowing to the drop structure and going over in high water events. It was noted that the data collected after the 2006 storm event shows that most wood in lower Lake Creek does not move, and that additional wood is from local recruitment. There may be better ways to get wood into lower Lake Creek than bringing it around the drop structure.

John Blum noted that WDFW's engineers are reviewing the information on fish passage for Snyder Creek.

Energy Northwest was asked about other issues besides aquatic resources. The Recreation Needs Analysis report will be issued shortly; however, the recreation study showed that recreation is actually down, mostly as a result of Forest Service decisions related to the resort. Campgrounds are too close to the lake, but that is not Project related. Energy Northwest will need to reach agreement with the Forest Service on road and trail maintenance; however, most of recreation is related to Forest Service policy

decisions. For the archaeological site, the Historic Properties Management Plan, which was recently issued, addresses erosion that is both a project effect and a recreation effect.

Although no species can be considered a priority, there are constraints related to spring Chinook spawning and the low flows in August and September.

The entrainment study is continuing, and results to date will be part of the Progress Report. The study report is now scheduled to be issued at the end of August. Energy Northwest decided to perform hydroacoustic studies, the first set was completed in May, and another will be completed in early August.

ACTIONS FROM THE MEETING

1. Energy Northwest will file the second season Study Progress Report the week of July 30, so that the Progress Report meeting can be held on August 14.
2. John Blum will run pre-Project IFIM for Lake Creek.
3. The agencies and tribes are planning to hold a meeting on August 6 to discuss issues and concerns.
4. Energy Northwest will bring possible operating scenarios to the August 9 meeting in Randle and the August 15 meeting (the August 15 meeting may start after the August 14 meeting is completed).
5. Add the phrase “as measured at the drop structure” to the flow graph.
6. Perform an analysis of wet versus dry year accretion.
7. Energy Northwest will ask Kathy Dube to provide a brief summary of wood movement after the November 2006 storm event (emailed 7/25/07).