

October 17, 2006  
PKWD-06-039

Ms. Magalie R. Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20427

Dear Secretary Salas:

Subject:     **PACKWOOD LAKE HYDROELECTRIC PROJECT  
FERC DOCKET NO. 2244-012  
MEETING SUMMARY**

Reference:   Letter dated September 18, 2006, J.W. Baker to Magalie R. Salas, Study  
Progress Report

In accordance with 18 CFR 5.15, enclosed please find the meeting summary for Packwood Lake Hydroelectric Project's initial study report meeting, held on October 3, 2006. The meeting was held to review and discuss study reports for Cultural Resources, Engineering Study Related to Barrier Replacement on the Tailrace, Packwood Lake Drawdown, Stream Connectivity in Packwood Lake Tributaries, and Water Quality.

As discussed in the Study Progress Report (see reference), and as reflected in the meeting summary, Energy Northwest is proposing that the Packwood Lake Drawdown study be extended through the 2006 drawdown and recovery, which is the second season of study. Energy Northwest is also proposing that sampling of the Cowlitz River side channel be deleted from the Macroinvertebrate study, which is part of the Revised Water Quality Study Plan, because there was no water in the side channel when the study was scheduled and the side channel has changed four times in the last three years. Construction of a permanent barrier on the Project's tailrace was moved forward from the date proposed in the study plan to October 2007. No changes were proposed for Cultural Resources, Stream Connectivity in Packwood Lake Tributaries, and Water Quality studies for temperature, water quality and the Phase I environmental site assessment. However, as a result of comments received from the agencies, Energy Northwest has agreed to issue a revised draft report for review and comment by the agencies and tribes for Stream Connectivity in Packwood Lake Tributaries. Energy Northwest will also issue a revised report for review and comment for Macroinvertebrates.

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**MEETING SUMMARY**

A second study plan meeting will be held December 12-13 to discuss the remaining eighteen studies: Amphibian Survey, Anadromous Salmonid Habitat and Spawning Survey, Bald Eagle and Osprey Nest Survey, Engineering Needs for Access Routes, Fish Distribution and Species Composition, Fish Passage Barriers, Fish Population Characterization Near the Drop Structure, Geomorphology and Habitat of the Tailrace Slough, Gravel Transport, Lake Creek Instream Flow and Habitat Assessment, Large Wood, Noxious Weed Survey, Packwood Lake Entrainment, Rare Plant Survey, Recreation Resources, Tailrace Slough Instream Flow, Tailrace Slough Use by Anadromous Salmonids, and Vegetation Cover Type Mapping.

If you have any questions or require additional information regarding this matter, please contact Ms. Laura Schinnell at (360) 673-3350.

Respectfully,

A handwritten signature in black ink, appearing to read "J.W. Baker". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

J.W. Baker, Vice President  
Energy/Business Services

Enclosure: Packwood Lake Hydroelectric Project, Study Report, October 3, 2006,  
Meeting Summary

Packwood Lake Hydroelectric Project  
Study Report  
October 3, 2006  
Meeting Summary<sup>1</sup>

Presentations

There were no presentations.

Handouts

There were no handouts. However, comments, as referenced below, received from the Forest Service, USFWS, and Ecology were discussed.

Summary of Discussions

Cultural Resources:

Laura Schinnell, Energy Northwest, stated that the initial cultural resources inventory was issued in January 2006, and the final report was issued in September; both are confidential reports. Additional information had been gathered on the USGS gaging station between the draft and the final. Historical Resource Associates is working on the Historic Properties Management Plan (HPMP), which should be issued to the Cultural Resources Committee in the next couple of weeks. The final HPMP is scheduled to be issued in December.

Water Quality and Temperature:

Kent Doughty, EES Consulting, went through the comments received from Ecology on the draft study reports. Most were editorial, and corrections will be made in the final report. He noted that the anomalous temperature data for the upper end of the tailrace was due to temporary project shutdowns. The final report will detail the cause and effect. Percent saturation data for dissolved oxygen will be added to the final report. Kent concurred with Ecology that an alternate model may be appropriate for Lake Creek due to limitations of applying CE-QUAL-W2 to steep gradient streams. He also concurred that the modeling process include consultation throughout model development. He outlined milestones for consultation on modeling as: 1) determine the modeling objectives, which model(s) to use and reaches; 2) develop lake and channel geometry files; 3) develop model hydrology and climate files; 4) calibration of the model(s); and 5) model application. It was decided that most meetings could be held via conference call, with background material sent via email prior to the meeting. Modeling work is expected to start in about four weeks. Models under consideration are CE-QUAL-W2 for Packwood Lake and the tailrace. QUAL2kw is being considered for Lake Creek. Kent will work with Paul Pickett, Ecology on developing a time line for the modeling effort.

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<sup>1</sup> 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.

#### Macroinvertebrates:

Comments were received from the Forest Service. Concerns were expressed that sampling was done in the fall and not other seasons. Kent Doughty explained that the indices used for comparison are based on fall sampling; the indices were developed by Bob Wisseman, who performed the study. Mr. Wisseman is a macroinvertebrate expert in the Pacific Northwest. The indices take into account other streams in the Pacific Northwest; Upper Lake Creek was not used for comparison because it was so different than lower Lake Creek. Information on how the indices were developed, other streams that may have been used for comparison, and consultation references will be added to the next draft of the report. Documentation on the consultation to identify comparative data from other streams will be included in the report. Pine Creek near Mt. St. Helens was suggested as one consideration. Additional discussion to support the conclusions will be provided. There needs to be additional discussion as to why many of the matrices are low. The need to integrate results from other studies (large woody debris, gravel transport, instream flow studies, water quality and aquatic habitat assessment) is needed. Ken Hogan noted that some of this synthesis and an analysis of Project effects can be done at the time of preliminary license proposal. There was discussion on what information is needed for the Cowlitz side channel. No sampling was conducted in fall 2005 because there was no water in the channel. The channel has changed four times in the last three years. Questions were asked as to what would be done with the data, if it were to be collected, and how the data would be used to inform a license condition. Another draft report will be issued to the agencies and tribes for review and comment.

#### Phase I Environmental Site Assessment:

No comments have been received on the draft report, which was issued in late June/early July. Paul Pickett will check his notes, and determine whether someone at Ecology has reviewed the draft.

#### Stream Connectivity in Packwood Lake Tributaries:

Comments were received from the Forest Service and USFWS. Discussion centered on the key questions; it was agreed that the report would be revised to specifically address the key questions as stated in the study plan. Additions to the next draft will include: information on how inflow is calculated; detailed methodology; digital photos; aerial photos; consultation on dead and dying old growth cedar; data from, and/or placeholders to other study reports; detailed explanations of the graphs, with better clarity using colors or symbols on the graphs; use of a more statistical approach to the analyses; and explanations of anomalies and subtleties. Watershed Geodynamics will review the data on dominant and subdominant strata, and determine if a graph can be developed. If after revising the analyses, additional data may be needed, it will be identified with a placeholder. Concern was expressed on the criteria used for fish passage depth of water; EES Consulting stated that the Oregon method was used; however, if the agencies are aware of another method, it would be helpful to have the information. Data is still being collected under the Fish Distribution and Species Composition study plan; so far EES Consulting has not found any fish, and this is why that study is being extended.

#### Packwood Lake Drawdown:

Comments were received from the Forest Service. Laura Schinnell stated the limited information on the lake pre-project was included in the Pre-Application Document. The “natural” lake elevation of 2857 feet was established when the Project was developed, however there is no documentation on how this was determined. Laura agreed to review the available information to determine if information exists on the pre-project outlet to the lake. Paul Pickett suggested that the water quality model could be used to model without project water levels provided that known elevation and dimensions of the natural outlet are available. Erosion potential from wave action and wind, and what could happen in the depositional area was discussed. The draft scheduled to be submitted to agencies and tribes in February 2007 will provide additional discussion on this. Additional data collection will continue through the 2006 drawdown period, and the recovery period as is possible before snow closes off ready access to the lake. This is the second season, and as data has been collected through the summer, the information should provide the ability to look at the hypotheses and determine if they are appropriate. The February 2007 draft report will include all the data, including precipitation, exceedance curves, ecological assessment of wetland function, better descriptions related to indicators of erosion and the protected bays, and an explanation of how lake inflow is calculated. Photographs will also be added. Information on vegetation will be included in the Vegetation Cover Type Mapping report.

#### Engineering Studies Related to Barrier Replacement:

The Fish Rescue Plan, Revision 0 was issued in September. As we perform fish rescues, additional changes can be made based on field activities. A fish rescue was conducted on October 2. There were over 1000 juvenile coho and 7 adults captured in three passes of the stilling basin. The tailrace was walked before seining the stilling basin, and electroshocked after seining.

The schedule for the permanent barrier was reviewed. Based on discussions from the September 19 meeting, HDR\Fish Pro is proceeding with the drum screen preliminary design, which will be completed by October 19, and sent to the agencies and tribes for review. EES Consulting will be preparing the monitoring/recovery plan. Detailed design, the monitoring/recovery plan and biological assessment will be sent to the agencies and tribes for review in mid-December. Energy Northwest intends to submit the package to FERC at the end of January. Laura Schinnell has discussed the need for permits with Lewis County and WDFW’s regional office; the need for a 401 water quality certification has not been determined. Application for permits needed on the state and local level will be made at the same time the package is submitted to FERC. The barrier is scheduled for installation in October 2007.

#### General Discussion:

Future study reports will attempt to provide placeholders or information from other studies so that the overall picture becomes clearer. If a conclusion is drawn, the data and explanation will be provided; however it is acceptable not to draw conclusions. Ken Hogan reminded everyone

that the “big picture” analysis is the preliminary license proposal. Comments should center on does the data result meet expectations, not necessarily on Project affects.

Energy Northwest indicated that with the completion of most studies, we should be able to start pulling together the overall results in late winter or early spring, so we can at least verbally begin discussions on the big picture.

Energy Northwest agreed to put together a spreadsheet, similar to the spreadsheet used during study plan development, to track comments received on study reports and their disposition.

### Actions from the Meeting

EES Consulting and Energy Northwest will revise the Water Quality and Temperature study reports, incorporating Ecology’s comments. The report will be issued as a final report.

Kent Doughty will contact Paul Pickett to set up a time line for water quality modeling work. Once the time line has been established, Energy Northwest will provide the timeline to the Water Quality and Aquatic Resources Committee, and schedule the first conference call meeting.

EES Consulting and Energy Northwest will revise the Macroinvertebrate report and send a revised draft for review and comment to the agencies and tribes.

Watershed Geodynamics, EES Consulting, and Energy Northwest will revise the Stream Connectivity in Packwood Lake Tributaries report and send a revised draft for review and comment to the agencies and tribes.

Agencies will review methodologies on fish passage water depth, and provide information to Energy Northwest and EES Consulting, if another methodology is identified that would be better to use.

Energy Northwest will review available information related to the pre-project outlet to Packwood Lake.

Energy Northwest will develop a spreadsheet for tracking the comments on study reports and their disposition.

### Dates for Next Meeting

The next study progress report meetings will be held December 12 and 13 in Olympia. Meeting location will be determined; a meeting notice will be sent with the location(s) and times identified. The agenda will include discussions on the 18 studies that were not discussed at the October 3 meeting.

## Attendance

Laura Schinnell, Energy Northwest  
Gary Sprague, WDFW  
John Blum, EES Consulting  
Kent Doughty, EES Consulting  
Brian Peck, USFWS  
Dan Ross, Energy Northwest  
Bernice Kasko, Energy Northwest (via conference line)  
Ken Wieman, US Forest Service  
Karen Thompson, US Forest Service  
Ruth Tracy, US Forest Service  
Blane Bellerud, NOAA-Fisheries (via conference line)  
Ken Hogan, FERC  
Erich Gaedeke, FERC  
Kathy Dube, Watershed Geodynamics  
Steven Dampf, Historical Research Associates  
Paul Pickett, Ecology

## References:

Electronic mail dated September 24, 2006, Deborah Cornett to Laura Schinnell, "Packwood Lake Hydroelectric Project – Water Quality and Temperature Reports"

Electronic mail dated September 29, 2006, Brian Peck to Laura Schinnell, "Study report comments"

Electronic mail dated October 3, 2006, Paul Pickett to Deborah Cornett, "Packwood Lake Water Quality Study Plan"

Letter dated October 2, 2006, Kristie L. Miller to Laura Schinnell, File Code 2770