

**5-21-08 Conference Call Summary – *Approved 7-7-08***  
**RESOURCE COORDINATION COMMITTEE (RCC)**  
**NORTH UMPQUA HYDROELECTRIC PROJECT- FERC #1927-008**

RCC Members or Alternates Present

Dave Harris (ODFW)  
Pam Sichting (USDA-FS)  
Craig Kohanek (OWRD)  
Ed Meyer (NMFS)  
Chris Stine (ODEQ)  
John Ouimet (USDA-FS)

Also Present

Beth Bendickson (PacifiCorp Energy)  
Rich Grost (PacifiCorp Energy)  
Joe Donnell (PacifiCorp Energy)  
Mark Croissant (PacifiCorp Energy)

Absent

Monte Garrett (PacifiCorp Energy)  
Gina Freel (USDA-FS)  
Craig Tuss (USFWS)  
Ariel Hiller (BLM)

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**INTRODUCTIONS, AGENDA, OLD BUSINESS**

Member Updates

**USDA-FS:** John Ouimet is retiring August 2. Greg Lesch will be acting District Ranger starting mid July. Derek Ibarguen (Recreation Facilities Manager) will take over from the end of August until the new hire comes onboard.

Public Information Opportunities - *None noted.*

RCC Action: Finalize and approve April 16 meeting summary

**PUBLIC COMMENTS** - *None at this time.*

**CURRENT PROJECT UPDATES**

Fish Creek (Screens and Canal Shutoff & Drainage) – Challenging snowmelt conditions caused the need to remove two of the t-screens last week because debris was plugging them more rapidly than manual cleaning could keep up with, and the automated cleaning system was not yet operational. The automated air burst cleaning control system is complete but is only usable in manual mode at this time. PacifiCorp is working on getting PLC in operation and expects completion by the end of this week. The t-screens will then be re-installed. R2 Resources will start hydraulic evaluation measurements next week. A site visit is tentatively scheduled for June 17. Work on the canal shutoff and drainage communication system is going on this week.

Macro-invert Ladder - No work can be done until snow melts off the access road.

Slide Creek Diversion Instream Flow Facility - Modifications were made to the air system and another round of testing was done. The next (and possibly last) test is scheduled for May 29 during a range of fairly extreme powerhouse generating conditions.

Soda Springs Tailrace Barrier - Ed Meyer inquired about the status of flow balancing and cleaning. Flows are currently higher than desired for flow balancing, but measurements will be made when flows drop to the desired level. The TRB pickets have required frequent cleaning during this recent snowmelt period. Two of the blow-out panel opened as flows and debris loads peaked over the weekend, and will be shut today during the cleaning cycle. Diffuser gates will be returned to original settings after adjustments related to cleaning and closing blow-out panels. Joe added that the TRB backed up water over the powerhouse tailrace deck during recent high flows. Rich will forward some photos to Ed of the TRB during recent high flows.

## **TECHNICAL WORKING GROUP (TWG) PROJECT UPDATES**

FHS (Fish Habitat Studies) – The most recent meeting was April 11 where the Predator Study Report was discussed. Follow-up work is planned for July/Aug to recapture marked fish to measure growth rates and improve estimates of abundance. The SA 8.3 annual monitoring was completed on April 25, as was a steelhead redd survey on the mainstem North Umpqua. The LTM Annual Report is in a TWG comment period but should be to the RCC in July. Dave said that all 3 smolt traps are currently out of the water due to high flows. At Ed's request and concurrence from Pam and Dave, the next FHS TWG meeting was rescheduled from June 3 to June 11.

### FPD (Fish Passage Design)

**Soda Springs Fish Passage Design:** We have the NPDES permit. The DSL comment period ended and we expect their permit within the month. Status of the ACoE permit is not known but Rich will follow up. There is plenty of time for permitting since construction is a year out.

The modeling is proceeding as planned. Once we know when the model will be operational, a site visit will be scheduled by Tim Hemstreet for interested FPD members.

F&R (Flows & Ramping) - No action.

### CSD (Canal Shut off & Drainage)

**14.2 Clearwater 2:** The 100% civil design work is going out to bid. The electrical design work is underway.

**14.2 Lemolo 2:** Eric Hansen is the project manager. A kick-off meeting will be scheduled in the future.

**Lemolo Reservoir:** The most recent meeting was May 12 where monitoring, funding, and actions were discussed. One recent action is that boat ramps have been extended at the Resort and at Poole Cr

so that boats can now easily launch at water levels down to 4,140 ft MSL. Rich reported that, according to Scott Lamb, the ice melted completely off the reservoir last Wednesday.

Efforts to address and monitor algae on the reservoir this year are limited by funding. The application for \$110k from the ODEQ 319 grant program was denied, so monitoring will be dependent on in-kind contributions, further contributions from PacifiCorp, and the smaller grants that have been or are being pursued. The USDA-FS has allocated \$50,000 from the SA 19.3 mitigation fund such that about \$20K is dedicated to Diamond Lake and \$30K may be available for Lemolo Lake and could be helpful in covering direct expenses such as laboratory analyses. The USDA-FS is continuing to monitor algae conditions in the reservoir from a public health standpoint as in past years. PacifiCorp will try to expand their planned 3-time sampling required by the 401 certification to perhaps have Joe Eilers sample more sites and parameters to learn more about algae dynamics in the reservoir.

The TWG also reviewed a draft proposal (*Experimental Lemolo Reservoir Management, 2008*) crafted by PacifiCorp to address a TWG request for lower reservoir levels during summer 2008. The basis for the TWG request is that lowering the water level was considered the most expedient action practical for 2008 as it does not require capital outlays for engineering and construction (as an intake modification would) or for equipment rentals or purchase (as mechanical mixers would). The requested scenario is a 4 foot lower summer water level to help speed the flow of water in the upper level which may help to reduce the potential for or magnitude of a blue-green algae bloom. The draft proposal called for lowering the level after July 4 weekend through Labor Day weekend, allowing a deeper fall drawdown to offset lost summer storage, and listed some of the other consequences of the proposed action.

The TWG generally supported the proposal, but there was concern that waiting until July to lower the level might be too late, as a blue-green algae bloom could happen in June. The TWG requested that PacifiCorp consider revising the proposal to allow for an earlier lowering based on the following priority scheme: a) not fill the reservoir at all; b) lower the level by June 15; or c) lower the level when monitoring indicates the BGA density exceeds 1,000 cells / ml (a meaningful but low density, considered an early-warning of the presence of BGA and indication that a larger bloom is possible.)

Rich took this request back to PacifiCorp and revised the proposal to include elements of both priority a) and c), and also more specifics regarding the reason for and expectations from this action. The resulting proposal (*Experimental Lemolo Reservoir Management, 2008*; Attachment 1) was emailed to the RCC and TWG just prior to this RCC call for RCC review and comment. He said PacifiCorp would like ODFW and USFS to support this proposal in writing, since it affects the drawdown period governed by those agencies via the Lemolo Reservoir Management Plan, and also document RCC support within RCC meeting notes or emails since the SA Section 9 indicates summer water levels of 4,145-4,148.5 ft MSL.

Rich summarized the current proposal as allowing the reservoir level to be managed between 4,141 ft MSL and 4,148.5 ft MSL from Memorial Day thru Labor Day, except that if BGA density exceeds 1,000 cells/ml, then the level would be actively reduced to the lower portion of that range (4,143 +/- 2 ft MSL) after July 5 and subject to waterway capacity. If no blue-green algae is observed, the levels would be between 4,141 and 4,148.5 feet, with continued monitoring. From September 2 on, the

reservoir would be gradually draw down per the Lemolo Reservoir Management Plan except that a lower minimum pool of 4,114 ft MSL would replace the usual minimum pool of 4,123.5 ft MSL.

Dave Harris expressed concern about the potential for low summer levels to cause lower fall flows for spawning Chinook. From an experimental point of view, he said ODFW's preference was to fill up the reservoir and continue to monitor.

Pam Sighting asked how long it takes to lower pool to 4,141 feet. Rich explained that the proposal is to follow existing drawdown rate limits of 0.5 ft/day, so lowering 4 ft would take at least 8 days. But with this much snow melt, there could be waterway restrictions that would slow the rate.

Currently all of the bypass reaches except Lemolo 1 have been in substantial spill since the weekend. The reservoir has been filling at 1.4 to 1.1 ft/day, but the plan is to slow that rate as we gradually ramp spill into Lemolo 1 bypass reach starting today. It is expected that flow though the reservoir could be about 300 to 400 cfs from lower levels spilling into the river, and 550 cfs from mid levels passing into the canal. This flow condition could possibly last all through June.

**Action Item:** RCC will expedite review of one-time experimental water levels proposal, discussing with respective technical work group members as needed, and provide email documentation of support or explanations of non-support to Rich and Monte by Friday, May 23.

The TWG meeting list was reviewed and updated, Beth will distribute with meeting minutes.

**The next RCC Conference Call is scheduled for June 18, 10:00 AM**

**Adjourn**

## Attachment 1

### **PROPOSAL: EXPERIMENTAL LEMOLO RESERVOIR MANAGEMENT, 2008**

This proposal allows experimental management of Lemolo Reservoir water levels during 2008 in response to a recommendation from the Lemolo Reservoir Technical Work Group (TWG) formed by the Resource Coordination Committee (RCC), and recognizes the potential consequences of this action. The overall purpose of this experimental management is to attempt to reduce the potential for deleterious blooms of certain cyanobacteria (also called blue-green algae, or BGA), which can produce toxins and have caused “water contact advisories” by the Douglas County Health Dept. and Dept. of Human Services on Lemolo Reservoir in 2006 (7/13 - 8/2, 9/26-10/13) and 2007 (6/26 - 8/20). Avoiding another BGA bloom would benefit all concerned (PacifiCorp, resource agencies, Lemolo Lake Resort owners, and the public). Approval from Oregon Department of Fish and Wildlife and US Forest Service, in consultation with the other government parties, allows deviation from Lemolo Reservoir water level restrictions pursuant to Settlement Agreement Section 9 and the Lemolo Reservoir Management Plan.

#### BACKGROUND

Due to the impact of BGA blooms and the water contact advisories they have triggered, the RCC formed the Lemolo Reservoir TWG in July 2007 to investigate measures that may help reduce the potential for BGA blooms given the unique conditions present in Lemolo Reservoir. Based on best available data and professional judgment, conditions potentially related to the recent BGA blooms include: the modified hydrology of the reservoir stemming from requirements of the Settlement Agreement (e.g. higher winter pool, high summer levels, increased flow from the hypolimnion to support higher instream flows in downstream river reaches); the drawdown, treatment, and recovery of Diamond Lake related to the 2006 rotenone treatment; and the poorly-understood factors that are causing BGA blooms in many other regional water bodies. The TWG has reviewed existing data, new information, and revised reservoir modeling by science consultants. That review (particularly the reservoir modeling) revealed that site-specific conditions at Lemolo Reservoir may allow a substantial reduction (20-25%) in “residence time” of epilimnetic water from a relatively small (3.5 feet) drop in reservoir elevation, which in turn may reduce the likelihood and magnitude of BGA blooms. The TWG’s discussion of alternatives and considerations of impacts to other resources suggests that lowering the summer water surface elevation (WSE) by 3-4 feet (to about 4143.0 [+/- 2] feet mean sea level [MSL]) may be a reasonable and expedient action with fewer negative impacts to other resources (e.g. local and downstream water quality, downstream flows and temperature, recreation, aesthetics, fish and wildlife) than other actions considered. This proposal is designed to allow for the above summer water level objective discussed by the TWG. There will also be certain negative impacts to generation and operating flexibility.

The TWG recognizes this as a one-time experiment that has no bearing on, or implications for water management, including the operation of Lemolo Reservoir in future years. It is also recognized that the highly variable nature of BGA blooms makes it unlikely that whatever bloom conditions might develop during 2008 could be directly linked to this particular action(s).

#### PROPOSAL

The proposal encompasses three periods with differing management conditions. During all periods, daily WSE fluctuations would be similar to a normal summer, ranging within about one foot per day, and the normal reservoir drawdown limit of 0.5 feet per day will be followed to the greatest extent possible to moderate flow change impacts in downstream reaches and recreation impacts within the reservoir (e.g. beached boats). Note

that recently extended boat ramps are now fully usable (depth >3 feet) at WSEs of 4138 feet MSL (Resort) and 4140 feet MSL (Poole Cr).

Period 1: Memorial Day through July 4, 2008

Manage reservoir water surface elevation (WSE) between 4141.0 and 4148.5 (full pool); monitor for BGA density and species composition (USFS).

Rationale and Caveats:

- The wider management range allows flexibility to manage snowmelt while also providing the desired lower water levels whenever practical to do so.
- The 4141 feet MSL minimum ensures that boat ramps remain fully usable.
- Consequences to other resources may include less moisture to the reservoir riparian zone and the created Lemolo Reservoir wetland, an aesthetic “bathtub ring” around the reservoir, and shallower swimming areas.
- Since this has not been done before, other unforeseen consequences may occur.
- Experimental management would not affect Oregon Dept. of Environmental Quality’s acceptance of PacifiCorp’s 401-required 2008 chlorophyll-a monitoring results.
- Monitoring by USFS (mid-reservoir, within 1 meter of the surface) will document if and when the threshold BGA density (1,000 cells/ml) occurs, and facilitate planning for the next period.

Period 2: July 5, 2008 through September 1, 2008

Same as Period 1, except that if monitoring indicates that BGA density has exceeded the threshold, then the WSE will be gradually lowered to within an operating range of 4143 (+/- 2) feet MSL as practical and within ramping constraints below Soda Springs. Releases from Lemolo reservoir will be within hydraulic capacity of the Lemolo No. 1 and Lemolo No. 2 generating plants.

Rationale and Caveats -- same as for Period 1, plus:

- Reduction in the reservoir water level will cause a flow increase below Soda Springs powerhouse, and concomitant decrease after the water level reduction is achieved
- Loss of the upper four feet of water storage could cause loss of augmented flows to downstream reaches during fall if dry hydrologic conditions develop (see below), even with the lower fall drawdown range and good coordination with Diamond Lake releases.

Period 3: Fall Drawdown (September 2 through December 31, 2008)

Manage reservoir drawdown as usual per Lemolo Reservoir Management Plan, except that the drawdown will be allowed to go as low as elevation 4,114 feet MSL (rather than the normal minimum pool of 4,123.5 feet MSL) during normal hydrologic conditions, and lower if dry conditions develop, to offset the loss of the upper 5.5 feet of stored water and potential fall power generation.

Rationale and Caveats:

- The lower drawdown range allows fall flow augmentation for Chinook salmon spawning to occur in the North Umpqua River.
- The lower fall drawdown may create greater fish entrainment potential from Lemolo Reservoir than usual.
- If dry hydrologic conditions develop by fall, there may not be enough storage in Lemolo Reservoir to maintain typical augmented minimum flows through the entire drawdown period, even if drawdown below 4114 ft MSL is allowed.

- Drawdown below 4114 ft MSL may require manual cleaning of trashracks in the reservoir by boat and/or divers, which would have to be planned, funded, and completed in advance.

###END###