

PUBLIC UTILITY DISTRICT NO. 1 *of* CHELAN COUNTY
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October 15, 2008
P-637-WA NATDAM-WA00004

Mr. Patrick Regan, P.E., Regional Engineer
Portland Regional Office
Federal Energy Regulatory Commission
805 SW Broadway, Suite 550
Portland, OR 97205

Re: Chelan River Project Monthly Report

Dear Mr. Regan:

In accordance with your letter of June 19, 2008, enclosed herewith are an original and two copies of the fourth monthly report for the Chelan River Project. In addition, copies of this letter and the report will be sent to Mr. Jon Merz and Ms. Pat Irle of Washington Department of Ecology.

If you would like to discuss this work or if additional information would be helpful, please call me at the number listed below, or call Michelle Smith, Licensing & Compliance Manager, at (509) 661-4180.

Sincerely,
Engineering Services

M. Gene Yow

M. Gene Yow, P.E.
Dam Safety Manager
(509) 661-4305
gene.yow@chelanpud.org

Enclosures: Original and two copies

cc: Jon Merz, WaDOE
Pat Irle, WaDOE

Chelan River Project – Monthly Report
Lake Chelan Hydroelectric Project – FERC No. 637
Public Utility District No. 1 of Chelan County

October 15th, 2008

1. Progress of Work

The work is on schedule. Tailrace habitat improvements were completed ahead of schedule (compliant with a contractual early completion incentive) as desired by the Lake Chelan Fishery Forum. Spill flow occurred during portions of June and July, consistent with normal operations. The spill flow was as expected and did not disrupt construction operations.

Work on the new river channel habitat, pump station, conveyance canal, and hydraulic control structure (boulder weir) are in progress and on schedule, with no environmental, quality, or safety incidents.

Work at Lake Chelan Dam for the Low Level Outlet, has been rescheduled to commence in February, 2009. The originally scheduled start was in September, 2008. The new start date is to allow the contractor to focus on completion of the reach 4 work prior to the next regular spillway operational season.

Progress on the site has included:

- Removal of the temporary berm that was placed to facilitate installation of the pump station drilled piers, is complete. No water quality violations occurred. All in-water silt fence/oil-booms have now been removed.
- The pumped water conveyance canal earthwork and lining is complete except for short segments at the south end and north end. Remaining work on the ends will coincide with completion of the concrete installation at the pump station.
- Outlet structure concrete placement is ongoing, along with steel embed installation.
- Nearly 90% of the boulders needed for the project are now on-site. Work is underway to bring the last 10% on-site.
- The spill channel boulder installation is about 50% complete. The major feature remaining to be completed is the grouted hydraulic control structure.
- Boulder cluster installation at the upstream entrance to the habitat channel, has begun.

2. Status of Construction

The lower tailrace habitat work began July 1, 2008, on schedule, and is now substantially complete.

Pumped water outlet structure concrete construction and steel embed installation is ongoing, on schedule. Completion of the outlet structure is anticipated to be mid-November.

Work has begun on the pump station concrete grade beam installation. Forming and rebar placement are underway, with the first concrete placement scheduled in October.

All other phases of the work are expected to start on schedule.

See project milestone schedule which follows.

Activity Name	Original Duration	Start	Finish	Duration % Complete
LC07b Chelan River Project	793	07-Sep-07 A	14-Oct-10	35.58%
Costs	523	02-Jan-08 A	12-Feb-10	35.56%
Planning	548	07-Sep-07 A	30-Oct-09	51.46%
Execution (Construction of 08-01)	316	30-Jun-08 A	28-Sep-09	23.42%
Pump Station Construction	159	07-Jul-08 A	10-Mar-09	36.51%
Reach 4 Construction	285	30-Jun-08 A	13-Aug-09	26.01%
Low Level Outlet Construction	260	18-Sep-08 A	28-Sep-09	6.92%
Civil / Structural Construction	260	18-Sep-08 A	28-Sep-09	6.92%
Primary Submittals	20	18-Sep-08 A	24-Oct-08	55%
Sluice Gates & Actuators (and review)	20	18-Sep-08 A	24-Oct-08	55%
Material & Equipment Delivery	5	16-Feb-09	23-Feb-09	0%
Tap Outlet at Dam	91	17-Feb-09	24-Jun-09	0%
Complete Tunnel Stub	80	20-Mar-09	13-Jul-09	0%
Construct Outlet	153	23-Feb-09	28-Sep-09	0%
Revegetated Areas	257	15-Oct-09	14-Oct-10	0%
Closeout	22	28-Sep-09	27-Oct-09	0%
Testing	22	28-Sep-09	27-Oct-09	0%
Project Turnover	2	13-Oct-09	15-Oct-09	0%
Closeout	5	15-Oct-09	21-Oct-09	0%

TASK filter: Not Completed.

3. Construction Difficulties

No difficulties have been encountered on the project. The work is generally occurring as expected.

4. Contract Status

Goodfellow Brothers, Inc. (GBI) of Wenatchee, WA, is the general contractor and is performing the majority of the work themselves.

Malcolm Drilling of Kent, WA, a specialty foundation contractor, installed the foundation piers to support the pump tubes and pumps.

Sharples Construction of Kent, WA is building the concrete outlet structure for the conveyance canal.

McCandlish Electric, Wenatchee, WA will be performing the electrical work.

Harbor Offshore, Ventura, CA, will be performing the diving operations, during installation of the tee screens and pump tubes.

5. Critical Events and Dates

- May 5 Notice to Proceed
- May 12 Begin Mobilization
- May 27 Begin work on site
- June 5 Set temporary bridge across Reach 4 spill channel
- June 5 Lake Chelan spill begins
- July 1 In-water construction work window begins
- July 15 Delivery of pump station pumps
- August 7 Delivery of T-Screens
- September 2 Delivery of pump tubes
- September 5 Completion of Tailrace Habitat construction

6. Reservoir Filling

N/A

7. Foundations

Drilling for pump station foundation piers did not encounter bedrock in any of the pier locations. This possibility was anticipated in the design so that an appropriate length for pier(s) not reaching bedrock was calculated and shown on the design drawings. This length was used, as planned.

The foundation excavation for the conveyance canal outlet structure has been completed. The foundation material consists of alluvial boulders and cobbles in a matrix of gravel and sand. These are the conditions anticipated by the design.

8. Sources of Major Construction Materials

Material for “fish mix” and “riffle mix”, two gradations of gravel used to construct the fish habitat, is being obtained from on-site sources. See drawing 0330-50GA-0028 (sheet R1) in the bid documents for borrow area locations. The material has been regularly tested, inspected, and meets the contract specifications.

Boulders will be obtained from both on-site and off-site sources. The boulders are generally from alluvial sources along the Columbia River Valley.

The required Large Woody Debris (LWD) has been delivered to the job site from various sources along the Columbia River Valley. The LWD includes 154 poplar trees for racking, 65 root balls, 85 conifer key logs, and approximately 100 conifer racking logs.

Concrete is being supplied by Chelan Concrete and Central Washington Concrete. The cement will be supplied by Lehigh Cement.

Gates and valves proposed for the Low-Level Outlet are from J&S Valve and HydroGate. Submittals for this equipment are undergoing review and acceptance.

Pumping equipment and controls are being provided under separate contract by ITT Flygt, Inc. The pumps and major components have been delivered to the job site, on schedule.

9. Materials Testing and Results

Structural concrete has been placed and tested, and structural embankment material for which density tests are required has been placed. Test results meet the contract specifications. Canal shotcrete lining has been placed, and tested to verify conformance with the contract specifications. No exceptions have been noted.

10. Instrumentation

No instrumentation has been installed at this point in the project. Information will be provided as appropriate in future reports.

11. Photographs

This shows Reach 4 looking south, on October 13th, 2008. The pumped water conveyance canal has been shotcreted. Concrete and forms for the Pumped Water Outlet Structure are visible. Grading in the Hydraulic Control Structure area is seen in the foreground, as well as stockpiling of boulders for the construction.

Pump station grade beams under construction. 10/8/08.

Quality control sampling and testing underway, typical for all concrete placements.

Rip-rap slope stabilization for the east side berm on the conveyance canal. 10/3/08

12. Erosion Control and Other Environmental Measures

A variety of steps have been taken thus far in the project to protect surface water and soil, in accordance with the project's approved Water Quality Protection Plan and Erosion & Sediment Control Plan. These include placement of silt fences and sediment curtains, and deployment of an oil boom. Washington Department of Ecology staff has visited the project site on several occasions. No water quality violations have been cited.

A sediment curtain was installed in the powerhouse tailrace channel around the temporary earth berm at the pump station, prior to placement of the berm. The sediment curtain, along with an oil boom, remained in place during drilling for pier installation. The steps taken have been effective at limiting sedimentation to acceptable levels. The equipment has now been removed since the temporary earth foundation used for concrete pier construction staging has been removed.

The oil boom that was installed downstream of the confluence of the Chelan powerhouse tailrace channel and the new channel, has now been removed. Work is underway above elevation 710 in the habitat channel, and is protected by a temporary berm which separates work from affecting the water.

13. Other Items of Interest

There are none to report at this time.