



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PORTLAND DISTRICT
BONNEVILLE LOCK AND DAM PROJECT
PO BOX 150
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CENWP-OD-B

30 January 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 4 of 2014, which covers the period from 19 January through 25 January 2014.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 127.7 to 149.5 kcfs. Daily average project tailwater ranged from 11.7' to 13.0' msl. Daily average powerhouse forebay elevation ranged from 74.5' to 74.9' msl. Daily average water temperatures ranged from 39°F to 40°F. Secchi disk measurements ranged from 5.0' to 7.0' this reporting week.

b. Spill Bays 01 and 18 provide attraction flow for Cascades Island and B-branch, respectively. They are open 6" during daylight hours. Spill Bay 18 is closed to prevent fish attraction while B-Branch remains at tailwater. Daily spill remained at 0.5 kcfs this reporting week.

c. Unit Operation. Powerhouse Two became the priority powerhouse on 01 November. Unit Outages. Table 1. Unit Outages.

Unit	OOS Date	RTS Date	Reason
6	0700 on 22 Jan 13	1640 on 23 Jan 13	Cooling Water Pump/strainer mod
11	0900 on 09 Sept 2012	NA	High Thrust Bearing Temps
18	0748 on 16 December	NA	Digital Governor Installation

(1) Fish Units. Second Powerhouse fish units provide attraction flow for the Washington Shore (WS) fish ladder. The units may be placed on standby, as necessary, during nighttime hours to float debris. Gatewell drawdowns are measured on Tuesdays and more frequently as needed. FU2 went out of service at 0700 on 15 October 2013 for digital governor installation and servo repairs.

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2. ACTIVITIES:

a. Auxiliary Water System Closures. FV1-1, FV3-7, FV3-9, FV4-3, and FV4-4 remain closed while locked/tagged out during the Bradford Island fishway overhaul.

b. STS/VBS inspections. Table 2. STS and VBS inspection.

<i>Unit</i>	<i>Date</i>	<i>Comments</i>
11	N/A	Unit 11 remains out of service
12-18	16-18 Dec	STS Removed

c. Dewatering and Fish Salvage. No dewaterings or fish salvages occurred this reporting week.

3. **RESEARCH:** Normandeau – Fish Counting. Video counting continues.

4. FISHWAYS:

a. Project biologists inspected 21 & 23 January.

b. Fish Passage Plan Observations.

(1) Table 3. FPP Out of Criteria items.

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND (BI) - Dewatered				
CASCADES ISLAND (CI) – Nothing to report				
WASHINGTON SHORE (WS)				
1/21, 23	SDE, SUE, NDE	Differential <1.0'	F2 OOS	NA

(2) PH2CC diffuser A2 is stuck closed. Diffuser B7 has been closed until repairs to the diffuser motor can be performed. The next possible time period will be 2014/15 winter maintenance.

c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November.

d. Zebra Mussel Monitoring. No signs of colonization were observed this reporting week.

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e. Adult Fishways.

(1) Calibration was not checked this reporting week.

(2) 10 of 12 floating orifice gates (FOGs) are installed. Two gates remain out for maintenance. Stab plates for all FOGs are installed, with the NUE closed while FU2 is out of service.

(3) All SLEDs are removed.

(4) PH2-NUE, B-Branch, A-Branch, and the PH1CC remain out of service during winter maintenance.

(5) **Winter Maintenance Update:** The A-branch fish ladder is dewatered from diffuser FG2-18 up to the Bradford Island exit. The grating has been inspected; portions have been replaced in the A-branch section and some are currently being replaced in the PH1CC. Diffusers FG2-19 and FG2-22 in the PH1CC are currently being fixed. All other diffusers from FG2-18 north through A-branch have been examined and where necessary repaired. A significant leak has been identified in the FV3-7 conduit and will be repaired to the extent possible during this in-water work period.

f. Juvenile Fishways.

(1) The south end gate of the Ice and Trash Sluiceway (ITS) was discovered to be in serious disrepair on 01 September. The gate has been removed for repair, plating has been placed over the bottom of the guide slot, and the ITS was reopened on 25 September. The ITS will need to be reclosed for reinstallation of the gate once repairs are complete.

(2) The DSM remains in service.

(3) The hydro-cannon remains out of service.

(4) The B2CC remains closed.

(5) The PH2 and B2CC avian arrays were removed on 09 and 10 October to facilitate the WA Shore LFS repairs. They will be reinstalled the first week of March. The PH1 and Spillway arrays remain intact. The PH1 array currently has one broken line.

g. Lamprey Fishways. All LPSs remain dewatered. The butterfly valve to the WA shore LPS/LFS is closed.

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5. CONSTRUCTION: WA Shore LPS/LFS Installation. Dive work to repair the LFS completed on 30 October. Repairs and modifications to the LFS/LPS continue.

6. HAZMAT, SPILLS AND CLEANUP: Nothing to report.

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 26 November request that the Bonneville minimum forebay be no lower than 73.5' as a soft constraint effective immediately and until further notice. This request is to assist with navigation due to a surveyed high spot below The Dalles downstream lock entrance. River ops regarding Bonneville tailwater requirements for Chum Salmon take precedence as do normal river ops to meet regional power demands.

b. A teletype sent on 18 December updated tailwater operations for Chum Salmon spawning and egg incubation. Starting 1800 on 24 December, maintain tailwater at 11.5' as a hard constraint. This modifies the previous teletype requiring a minimum tailwater elevation of 11.6' and additional tailwater operations described within.

c. A teletype sent on 19 December provides updated wintertime spill caps for fish passage and lack of load spill conditions based on observed TDG data. The teletype is to be used from 0000 on 01 January, 2014 to 2359 on 01 March, 2014.

d. A teletype sent on 15 January states that effective immediately operate Unit 04 in a last-on/first-off basis due to required maintenance.

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Bonneville Project