



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, PORTLAND DISTRICT  
BONNEVILLE LOCK AND DAM PROJECT  
PO BOX 150  
CASCADE LOCKS OR 97014-0150

CENWP-OD-B

27 February 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 8 of 2014, which covers the period from 16 to 22 February 2014

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 124.1 to 162.0 kcfs. Daily average project tailwater ranged from 14.1' to 16.7' msl. Daily average powerhouse forebay elevation ranged from 74.3' to 75.3' msl. Daily average water temperatures remained at 38°F throughout the week. Secchi disk measurements ranged from 2.0' to 4.0'.

b. Spill Bays 01 and 18 provide attraction flow for Cascades Island and B-branch, respectively. They are open 6" and during daylight hours at a minimum. Spill Bay 18 is closed to prevent fish attraction while B-Branch remains at tailwater. Daily spill remained at 0.6 kcfs this reporting week.

c. Unit Operation. Powerhouse Two remains the priority powerhouse.

(1) Unit Outages. Table 1. Unit Outages.

Unit	OOS Date	RTS Date	Reason
1	0750 on 20 Feb	1023 on 20 Feb	Raking trash
2	1023 on 20 Feb	1157 on 20 Feb	Raking trash
3	1243 on 20 Feb	1456 on 20 Feb	Raking trash
4	1457 on 20 Feb	1552 on 20 Feb	Raking trash
5	1555 on 20 Feb	1648 on 20 Feb	Raking trash
7	1557 on 19 Feb	1643 on 19 Feb	Raking trash
8	1357 on 19 Feb	1559 on 19 Feb	Raking trash
11	0900 on 09 Sept 2012	NA	High thrust bearing temps
12	0709 on 18 Feb	0806 on 18 Feb	Raking trash
13	0811 on 18 Feb	0846 on 18 Feb	Raking trash
14	0848 on 18 Feb	1014 on 18 Feb	Raking trash
14	1512 on 20 Feb	1714 on 21 Feb	Digital gov repair
15	1018 on 18 Feb	1103 on 18 Feb	Raking trash
16	1106 on 18 Feb	1147 on 18 Feb	Raking trash

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17	1306 on 18 Feb	1400 on 18 Feb	Raking trash
17	1234 on 19 Feb	1308 on 19 Feb	Turb bearing oil trip
17	1511 on 20 Feb	1115 on 21 Feb	Digital gov repair
18	0748 on 16 December	NA	Digital gov install

d. 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.

(1) FU1 went out of service at 0001 on 10 February for digital governor installation and servo repairs.

(2) FU2 was out of service from 0648 to 1146 and from 1644 to 1848 on 16 February due to water found in the turbine bearing. It was also out of service from 1043 to 1108 on 21 Feb for software update installation.

## 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 on 18 – 20 February.

b. Fish Passage Plan Observations.

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

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Date	Location	FPP Items	Cause	Response
<b>BRADFORD ISLAND (BI) - Dewatered</b>				
<b>CASCADES ISLAND (CI) – Nothing to report</b>				
<b>WASHINGTON SHORE (WS)</b>				
2/20	SDE, SUE	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.

e. Adult Fishways.

(1) Calibration was checked on 19 February.

(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 PH2 SLEDs were installed on 13 February. All remaining SLEDs are still 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 in the PH1CC. Repairs to diffusers FG2-19 and FG2-22 in the PH1CC are in their final stages. All other diffusers from FG2-18 north through A-branch have been examined and repaired where necessary. Work to repair the significant leak found in the FV3-7 conduit was completed to the extent possible under the constraints of the in-water work period.

f. Juvenile Fishways.

(1) The south end gate of the Ice and Trash Sluiceway (ITS) remains removed for ongoing repairs. Plating has been placed over the bottom of the guide slot to minimize fish impacts. The ITS will need to be closed for reinstallation once repairs are complete.

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(2) The DSM went out of service on 10 February for winter maintenance. The fish transport pipe was inspected on 18 February; no issues were discovered.

(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 03 – 05 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.

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

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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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