



**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

18 December 2013

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 50 of 2013, which covers the period from 08 through 14 December 2013.

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 125.1 to 153.5 kcfs. Daily average project tailwater ranged from 11.8' to 13.8' msl. Daily average powerhouse forebay elevation ranged from 73.1' to 74.4' msl. Daily average water temperatures ranged from 41°F to 42°F. Secchi disk measurements were 7.0' or greater all 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 so not to attract fish while B-Branch remains at tailwater. Daily spill ranged from 0.4 to 0.5 kcfs this reporting week.

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

(1) Unit 4 went out of service at 0830 on 15 October for a 5 year overhaul.

(2) Unit 11 went out of service at 0900 on 09 September 2012 for high thrust bearing temperatures.

(3) Unit 17 went out of service from 0704 on 21 October until 1545 on 13 December for digital governor install and 4 year overhaul maintenance.

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. FU2 went out of service at 0700 on 15 October 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>Run Hours</i>	<i>Comments</i>
11	N/A	OOS	Unit 11 remains out of service
12	30 Oct	N/A	STS installed
13-15	31 Oct	N/A	STS installed
16-18	01 Nov	N/A	STS installed

c. Dewatering and Fish Salvage. The following dewatering and salvage activities occurred this reporting week: On 11 December Project Biologists salvaged fish from Unit 17 tail logs. 1 channel catfish, 1 walleye, and approximately 50 sculpins were released to the tailrace in good condition.

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

## 4. FISHWAYS:

a. Project biologists inspected on 09, 10, & 11 December.

b. Fish Passage Plan Observations.

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

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>				
12/9,10	PH2CC	Entrance diffs < 1.0'	High drawdown on FU1	Cleaned/floated

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(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 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. The PH2-NDE was closed briefly on 12/11 to provide increased differential to the PH2CC.

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 reclose briefly for reinstallation of the gate once repairs are complete.

(2) The DSM remains in service.

(3) The hydrocannon 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. The PH1 and Spillway arrays remain intact. The PH1 array currently has one broken line.

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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 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 12 December updated specific operations regarding tailwater restrictions and flow management for Chum Salmon spawning and egg incubation. Hard constraints are: 1) For all hours require a minimum tailwater elevation of 11.6' and 2) For the hours of 0600-1700 maintain tailwater elevation within a 0.4' band between 11.6' and 12.0', targeting 11.8'. Additionally, in order to pass water in excess of what is necessary to meet the hard constraints, the project is authorized to increase tailwater to 18.5' (as Bonneville ramp rates allow) anytime between 1700-0600 with a preference of establishing the highest tailwater around 2400 without exceeding a tailwater of 16.5'. If the project is unable to pass enough water to maintain hard constraint (2), they are authorized to increase tailwater to 13.0' between the hours of 0600-1700. Finally, the maximum hourly reported elevation reached during these hours would become the new upper elevation limit of the 0.4' band, making hard constraint (2) increase.

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