



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

05 November 2013

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 44 of 2013, which covers the period from 27 October through 02 November 2013

### 1. OPERATION SUMMARY:

a. Daily average river flows ranged from 87.0 to 117.5 kcfs. Daily average project tailwater ranged from 8.6' to 10.5' msl. Daily average powerhouse forebay elevation ranged from 72.2' to 74.9' msl. Daily average water temperatures ranged from 56°F to 58°F. Secchi disk measurements were 7.0' or greater.

b. Spill Bays 01 and 18 provide attraction flow for Cascades Island and B-branch, respectively. They are open 6" during daylight hours. Daily average spill ranged from 1.0 to 1.1 kcfs.

c. Unit Operation. Powerhouse One became the priority powerhouse on 9 October. For in-service and out-of-service times and dates, see Unit Operation Closures Table below.

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. FU02 went out of service at 0700 on 15 October for digital governor installation and servo repairs.

### 2. ACTIVITIES:

a. Auxiliary Water System Closures. The following AWS closures occurred this reporting week:

(1) FV1-1 was closed for cleaning from 0720 to 0727 on 28 October and from 0719 to 0729 on 29 October.

(2) FV 3-9 was closed for cleaning from 0738 to 0747 on 28 October, from 0737 to 0749 on 29 October, and from 1108 to 1122 on 30 October.

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 activity occurred this reporting week. The AFF was dewatered on 28 October. All fish (primarily White sturgeon) were directed back into the WA Shore ladder.

**3. RESEARCH:**

- a. Normandeau – Fish Counting. Visual counting concluded on 31 October. Video counting began 01 November.
- b. Oregon and Washington Departments of Fish and Wildlife – Tule Counting. Tule counting concluded on 15 August.

**4. FISHWAYS:**

- a. Project biologists inspected 27 October through 02 November.
- b. Fish Passage Plan Observations.
  - (1) Table 3. FPP Out of Criteria items.

<b>Date</b>	<b>Location</b>	<b>FPP Items</b>	<b>Cause</b>	<b>Response</b>
<b>BRADFORD ISLAND (BI)</b>				
11/02	PH1CC	South ent diff < 1.0'	See 4.b.(3)	None
10/30	A-branch	Staff gauge > 1.1'	Suspected conduit leak	None
<b>CASCADES ISLAND (CI) – Nothing to report</b>				
<b>WASHINGTON SHORE (WS) – Nothing to report</b>				

(2) PH1CC diffuser FG2-19 is partially open. Repairs will occur when the PH1CC is dewatered. The next possible time period will be 2013/14 winter maintenance.

(3) A-branch diffuser FG3-3 and 3-6 are partially open in manual. FG3-5 is closed in manual. Repairs will occur when the Bradford Island ladder is dewatered. The next possible time period will be 2013/14 winter maintenance.

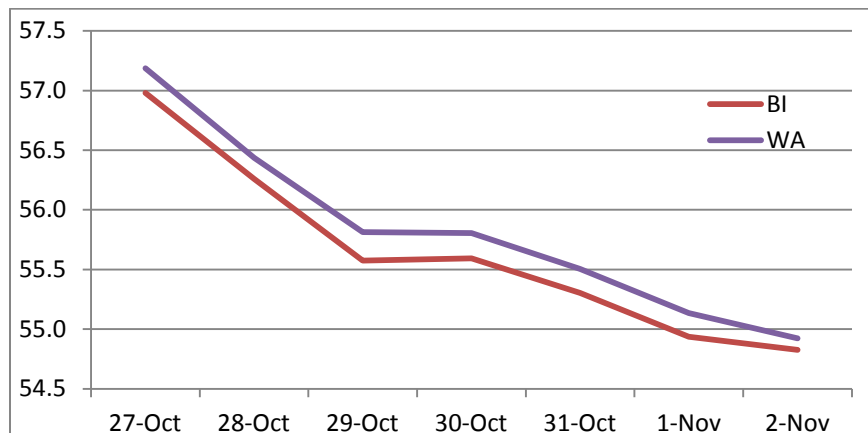
(4) PH2CC diffuser A2 is stuck closed. Diffuser B7 has been closed until repairs to the diffuser motor can be performed. The next possible time period will be 2014/15 winter maintenance.

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

Table 4. Daily Average Temperature in Degree Fahrenheit (F).

Date	Daily Averages	
	Brad Is.	WA shore
27-Oct	57.0	57.2
28-Oct	56.3	56.4
29-Oct	55.6	55.8
30-Oct	55.6	55.8
31-Oct	55.3	55.5
1-Nov	54.9	55.1
2-Nov	54.8	54.9

Graph 1. Daily Average Temperature in Degree Fahrenheit (F).



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

e. Adult Fishways.

(1) Calibration was checked on 30 October.

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(2) 10 of 12 floating orifice gates (FOGs) are installed. Two gates remain out for maintenance. Sea lion barriers are in place on all installed FOGs. Stab plates for FOG numbers 14, 15, 17, and 18 are installed.

(3) All SLEDs are removed.

(4) All ladders remain in service.

(5) The Bradford Island fish exit was closed for cleaning from 0738 to 0747 on 28 October.

f. Juvenile Fishways.

(1) The intake gate for the downstream exit 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 returned to service at 0945 on 31 October.

(3) The hydrocannon remains out of service.

(4) The B2CC was opened on 11 October in conjunction with the DSM being taken out of service early for the WA Shore LFS repairs. The B2CC closes during daytime dive work, and opens at night when units operate at PH2. The B2CC was opened for research testing from 1530 to 1620 on 30 October and from 1305 to 1405 on 31 October.

(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.

(6) 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:**

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a. A teletype sent on 17 October updates a previous teletype which states that beginning 09 October and continuing until the DSM returns to service (no later than 14 November), implement special operations to accommodate repairs of the WA Shore LFS.

b. A teletype sent on 31 October states that effective immediately and until further notice, operate within a forebay elevation of 72.5' – 76.5', as a hard constraint, in order to maintain the ITS in criteria for adult salmonid fallbacks.

Encl

JERRY A. CARROLL  
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Bonneville Project

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Unit operation closures.

Unit	OOS	Date	Return	Date	Comment
04	0830	15 Oct	---	---	Five-year overhaul
11	0800	Sept 2012	---	---	High thrust bearing temperatures
12	0500	27 Oct	1840	27 Oct	WA shore LFS repairs
12	0500	28 Oct	1900	28 Oct	WA shore LFS repairs
12	0500	29 Oct	1843	29 Oct	WA shore LFS repairs
12	0500	30 Oct	---	30 Oct	LFS / STS installed
12	---	31 Oct	0945	31 Oct	STS installed with DSM OOS
13	0500	27 Oct	1840	27 Oct	WA shore LFS repairs
13	0500	28 Oct	1900	28 Oct	WA shore LFS repairs
13	0500	29 Oct	1900	29 Oct	WA shore LFS repairs
13	0500	30 Oct	1915	30 Oct	WA shore LFS repairs
13	0716	31 Oct	0953	31 Oct	STS install
14	0500	27 Oct	1840	27 Oct	WA shore LFS repairs
14	0500	28 Oct	1900	28 Oct	WA shore LFS repairs
14	0500	29 Oct	1859	29 Oct	WA shore LFS repairs
14	0500	30 Oct	1915	30 Oct	WA shore LFS repairs
14	0955	31 Oct	1219	31 Oct	STS install
14	1707	02 Nov	1822	02 Nov	Breaker control issues
15	0500	27 Oct	1840	27 Oct	WA shore LFS repairs
15	0500	28 Oct	1900	28 Oct	WA shore LFS repairs
15	0500	29 Oct	1917	29 Oct	WA shore LFS repairs
15	0500	30 Oct	1915	30 Oct	WA shore LFS repairs
15	1219	31 Oct	1444	31 Oct	STS install
16	0500	27 Oct	1840	27 Oct	WA shore LFS repairs
16	0500	28 Oct	1900	28 Oct	WA shore LFS repairs
16	0500	29 Oct	1917	29 Oct	WA shore LFS repairs
16	0500	30 Oct	1915	30 Oct	WA shore LFS repairs
16	0630	01 Nov	0914	01 Nov	STS install
17	0704	21 Oct	---	---	Digi Gov / Overhaul
18	0500	27 Oct	1840	27 Oct	WA shore LFS repairs
18	0500	28 Oct	1900	28 Oct	WA shore LFS repairs
18	0500	29 Oct	1917	29 Oct	WA shore LFS repairs
18	0500	30 Oct	1915	30 Oct	WA shore LFS repairs
18	0914	01 Nov	1141	01 Nov	STS install

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