



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

17 October 2013

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 41 of 2013, which covers the period from 06 through 12 October 2013

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 92.3 to 131.6 kcfs. Daily average project tailwater ranged from 9.5' to 12.8' msl. Daily average powerhouse forebay elevation ranged from 75.0' to 75.7' msl. Daily average water temperatures ranged from 64°F to 67°F. Secchi disk measurements ranged from 3.5' to greater than 7.0'.

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 1.1 to 1.3 kcfs.

(1) Spillbay 18 was closed from 1020 until 1650 on 07 October for a tailrace hydrosurvey.

(2) Spillbay 1 was closed from 0630 until 1645 on 08 October for a tailrace hydrosurvey.

c. Unit Operation. Powerhouse One became the priority powerhouse on 9 October. Split flow operation ended on 23 September.

(1) Unit 01 went out of service at 0946 on 23 July for a 5 year overhaul. The unit was returned to service at 1638 on 09 October.

(2) Unit 2 was out of service from 0700 until 1237 on 08 October for Bank 1/2 testing.

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

(4) Unit 12 was out of service from 1516 until 1612 on 08 October to rake trash. The unit was forced out of service at 0905 on 09 October due to a blown servo seal.

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(5) Unit 13 was out of service from 1335 until 1514 on 08 October to rake trash. The unit was also out of service from 0915 until 1101 on 09 October for STS removal.

(6) Unit 14 went out of service at 0741 on 09 September for digital governor installation. The unit returned to service at 1610 on 10 October. The unit was also out of service from 1002 until 1304 on 11 October for STS removal

(7) Unit 15 was out of service from 1228 until 1327 on 08 October to rake trash. The unit was also out of service from 0719 until 0904 on 10 October for STS removal.

(8) Unit 16 was out of service from 1033 until 1157 on 08 October to rake trash. The unit was also out of service from 0904 until 1324 on 10 October for STS removal.

(9) Unit 17 was out of service from 0856 until 1031 on 08 October to rake trash. The unit was also out of service from 1324 until 1543 on 10 October for STS removal.

(10) Unit 18 was out of service from 0700 until 0850 on 08 October to rake trash. The unit was also out of service from 0552 until 1002 on 11 October for STS removal

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.

2. ACTIVITIES:

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

(1) FV1-1 was closed for cleaning from 0658 to 0720 on 07 October.

(2) FV 3-9 was closed for cleaning from 0753 to 0833 on 07 October.

b. STS/VBS inspections. Table 3. 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
12-18	N/A	N/A	All STSs removed by 11 Oct.

c. Dewatering and Fish Salvage. No fish salvage activities occurred this reporting week.

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3. RESEARCH:

- a. CRITFC. Annual Chinook, Coho, sockeye, and steelhead sampling in the AFF continues.
- b. NOAA – Lamprey. LPS count network installed. HD-PIT tagging continues from the AFF traps.
- c. Normandeau – Fish Counting. Visual counting continues.
- d. Oregon and Washington Departments of Fish and Wildlife – Tule counting. Tule counting began on 15 August.
- e. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring concluded on 12 October as the DSM was dewatered to facilitate repairs to the WA Shore LFS. No research fish were collected this week. Fallbacks recorded crossing the separator bars this reporting week: 27 salmon, 6 steelhead, and 6 unknown salmonids. Truck releases of summer out-migrants originating from Snake River dams began on 18 August.
- f. University of Idaho – AFF. USACE funded adult salmonid sampling continues.
- g. University of Idaho – Lamprey. HD-PIT and JSATs tagging continues from the AFF traps.
- h. WDFW – AFF. Sampling for the alternative gear study control group began on 20 September.

4. FISHWAYS:

- a. Project biologists inspected 06 through 12 October.
- b. Fish Passage Plan Observations.
 - (1) Table 4. FPP Out of Criteria items.

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND (BI)				
10/08, 09, 11	PH1CC	South ent diff < 1.0'	Unknown	None
CASCADES ISLAND (CI) – Nothing to report				
WASHINGTON SHORE (WS) – Nothing to report				

(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.

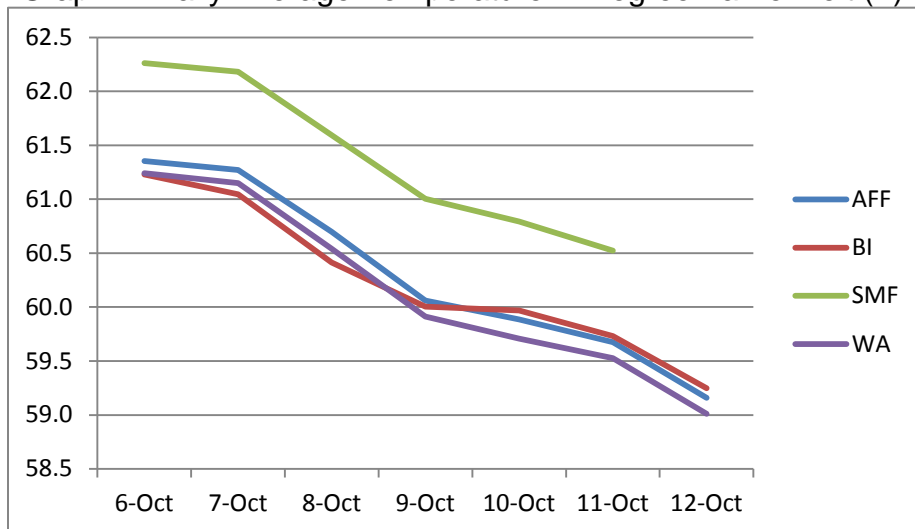
(4) PH2CC diffuser A2 is stuck closed. Diffuser B7 has been closed until repairs to the diffuser motor can be performed. The next possible time period will be 2014/15 winter maintenance.

c. Fishway Temperatures. Temperatures are normally taken from 01 March through 30 November. Forebay temperature as taken from the USACE website is unavailable.

Table 5. Daily Average Temperature in Degree Fahrenheit (F).

Date	Daily Averages		SMF	WA
	AFF	BI		
6-Oct	61.4	61.2	62.3	61.2
7-Oct	61.3	61.0	62.2	61.1
8-Oct	60.7	60.4	61.6	60.5
9-Oct	60.1	60.0	61.0	59.9
10-Oct	59.9	60.0	60.8	59.7
11-Oct	59.7	59.7	60.5	59.5
12-Oct	59.2	59.2	---	59.0

Graph1. Daily Average Temperature in Degree Fahrenheit (F).



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

e. Adult Fishways.

(1) Calibration was checked on 12 October.

(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. On 10 October, stab plates for FOG numbers 14, 15, 17, and 18 were installed to provide safe conditions for divers working on the WA shore LFS repairs.

(3) All SLEDs are removed.

(4) All ladders remain in service.

(5) The Bradford Island exit was closed from 0733 until 0800 on 07 October for cleaning.

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) STSs were removed from PH2 units 9-11 October and the DSM was dewatered on 12 October. This early outage is required to facilitate dive work associated with the WA Shore LFS repairs. The B2CC was opened on 11 October to provide a passage/fallback route while the DSM remains out of service.

(3) The hydrocannon remains in service.

(4) The B2CC was opened on 11 October in lieu of the DSM being taken out of service early for the WA Shore LFS repairs.

(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.

g. Lamprey Fishways.

(1) The Bradford Island LPS remains in service.

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(2) The WA shore AWS LPS remains in service.

(3) The WA shore LPS/LFS remains out of service. The butterfly valve is closed.

(4) Cascades Island LPS was taken out of service by NOAA on the morning of 04 October based on low passage numbers.

5. CONSTRUCTION: WA Shore LPS/LFS Installation. Flume construction is complete. Repairs and modifications to the LFS are scheduled for 15 October – 12 November 2013.

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

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 27 September updates previous teletypes for treaty fishing. From 0600 on 30 September through 1800 on 03 October, request that Bonneville pool operate within a 1.5' band as a hard constraint, with emphasis on steady nighttime operations.

b. A teletype sent on 08 October 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.

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