



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

02 March 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 9 of 2014, which covers the period from 23 February to 01 March 2014.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 122.0 to 147.8 kcfs. Daily average project tailwater ranged from 11.7' to 13.7' msl. Daily average powerhouse forebay elevation ranged from 74.7' to 74.9' msl. Daily average water temperatures ranged from 37°F to 39°F this week. Secchi disk measurements ranged from 3.0' to 5.0'.

b. Spill Bays 01 and 18 are open 6" during daylight hours to provide attraction flow for Cascades Island and B-branch, respectively. Spill Bay 18 opened on 27 February when B-branch came back to service. Daily spill ranged from 0.6 to 1.1 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
6	1911 on 23 Feb	1431 on 24 Feb	Blade dist valve seal leak
10	1020 on 18 Feb	0927 on 27 Feb	Annual maint / turb bearing seal repair
11	0900 on 09 Sept 2012	NA	High thrust bearing temps
12	0707 on 24 Feb	0947 on 24 Feb	STS install
13	0953 on 24 Feb	1236 on 24 Feb	STS install
14	1243 on 24 Feb	1622 on 24 Feb	STS install
15	0702 on 25 Feb	0956 on 25 Feb	STS install
16	0956 on 25 Feb	1241 on 25 Feb	STS install
17	1241 on 25 Feb	1528 on 25 Feb	STS install
18	0748 on 16 December	1642 on 29 Feb	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.

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

2. ACTIVITIES:

a. Auxiliary Water System Closures.

(1) FV1-1, FV3-7, FV3-9, FV4-3, and FV4-4 returned to service at 0830 on 25 February.

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
12-14	24 Feb	STS install
15-17	25 Feb	STS install

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

3. RESEARCH:

a. Normandeau – Fish Counting. Video counting continues.

4. FISHWAYS:

a. Project biologists inspected 26 February through 01 March.

b. Fish Passage Plan Observations.

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

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND (BI)				
2/28, 3/1	WG-64	Submergence >8.4'	SCCH PLC	TR in place
3/1	SCCH	Differential >1.0	SCCH PLC	TR in place
CASCADES ISLAND (CI) – Nothing to Report				
WASHINGTON SHORE (WS)				
2/26, 2/28, 3/1	SDE, SUE, NDE	Differential <1.0'	F1 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.

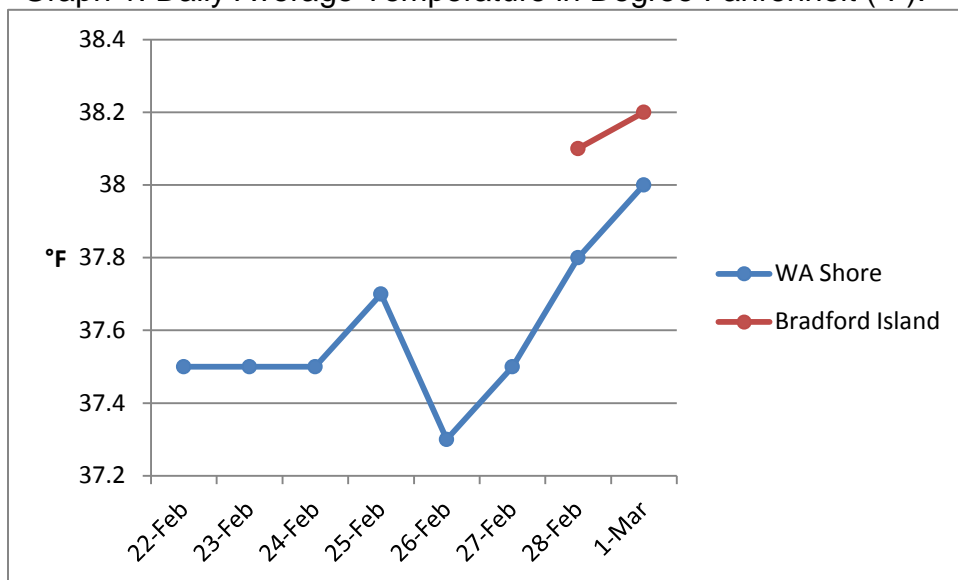
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c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November.

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

Date	WA Shore	Bradford Island
22 Feb	37.5	OOS
23 Feb	37.5	OOS
24 Feb	37.5	OOS
25 Feb	37.7	OOS
26 Feb	37.3	OOS
27 Feb	37.5	OOS
28 Feb	37.8	38.1
01 Mar	38.0	38.2

(2) 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.

(3) Calibration was checked on 28 February.

(4) 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.

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(5) SLEDs are currently installed at all fishway entrances. All PH2 and Cascades Island SLEDs were installed on 13 February. B-branch SLEDs were installed on 24 February and PH1 SLEDs were installed on 25 February.

(6) PH2-NUE remains out of service during FU1 maintenance.

(7) PH1CC was watered to tailwater on 25 February. The entire ladder returned to service on 27 February.

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.

(2) The DSM returned to service on 18 February.

(3) The hydro-cannon returned to service on 25 February.

(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.

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5. CONSTRUCTION:

- a. 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 28 February cancels a previous request to maintain a high forebay to assist with navigation at The Dalles lock. Dredging has completed. Tailwater requirements for Chum Salmon continue.

- 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