



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

9 April 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 14 of 2014, which covers the period from 30 March – 05 April 2014

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 226.2 to 262.8 kcfs. Daily average project tailwater ranged from 19.6' to 21.3' msl. Daily average powerhouse forebay elevation ranged from 73.4' to 74.5' msl. Daily average water temperatures ranged from 44° to 45°F this reporting week. Secchi disk measurements ranged from 3.0' to 4.0'.

b. Spill Bays 01 and 18 are open 6" during daylight hours to provide attraction flow for Cascades Island and B-branch, respectively. Daily spill ranged from 18.4 to 33.5 kcfs this reporting week.

(1) Spill bay 17 experienced a hoist brake failure on 11 March. The gate is currently on sill.

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

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

Unit	OOS Date	RTS Date	Reason
6	1046 on 17 March	---	5 yr overhaul
11	0900 on 09 Sept 2012	---	High thrust bearing temps
15	0716 on 05 March	---	Digital Governor & 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.

2. ACTIVITIES:

a. Auxiliary Water System Closures. No closures occurred this week.

- b. STS/VBS inspections. Table 2. STS and VBS inspection.

<i>Unit</i>	<i>Date</i>	<i>Comments</i>
11	---	Unit 11 remains out of service
12-18	---	STSs installed

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

3. RESEARCH:

- a. Battelle/PNNL – Surgical Training. Surgical training at the SMF commenced on 10 March, in preparation for survival studies at upstream dams.

- b. CRITFC – Sea Lion Hazing. Boat-based hazing continues.

- c. Fisheries Field Unit – Kelt Video Monitoring. Video recording of the separator bars began on 04 March.

- d. Fisheries Field Unit – Sea Lion Observations. Observations commenced on 09 January and will continue until the end of May. Bi-weekly pinniped reports can be found at: http://www.nwd-wc.usace.army.mil/tmt/documents/fish/2014/sea_lion_hazing_2014.html.

- e. NOAA Fisheries. LPS count network improvements are ongoing. An impedance counter is currently being tested at the WA Shore AWS LPS.

- f. Normandeau – Fish Counting. Visual counting began on 01 April.

- g. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring commenced on 04 March. No research fish were collected this week. Fallbacks recorded crossing the separator bars this reporting week: 24 steelhead, 1 salmon, and 2 unknown salmonid.

- h. USDA - Sea Lion Hazing. Land based hazing continues.

4. FISHWAYS:

- a. Project biologists inspected 30 March – 05 April.

- b. Fish Passage Plan Observations.

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

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND (BI)				
All week	A-Branch	Water Level > 1.1'	Unknown	None
CASCADES ISLAND (CI)				
3/30	UMT staff gauge	Water Level < 0.9'	Unknown	None
WASHINGTON SHORE (WS) – No violations to report				

(2) Spillway Bay 17 is on sill until parts are available to repair the gear box.

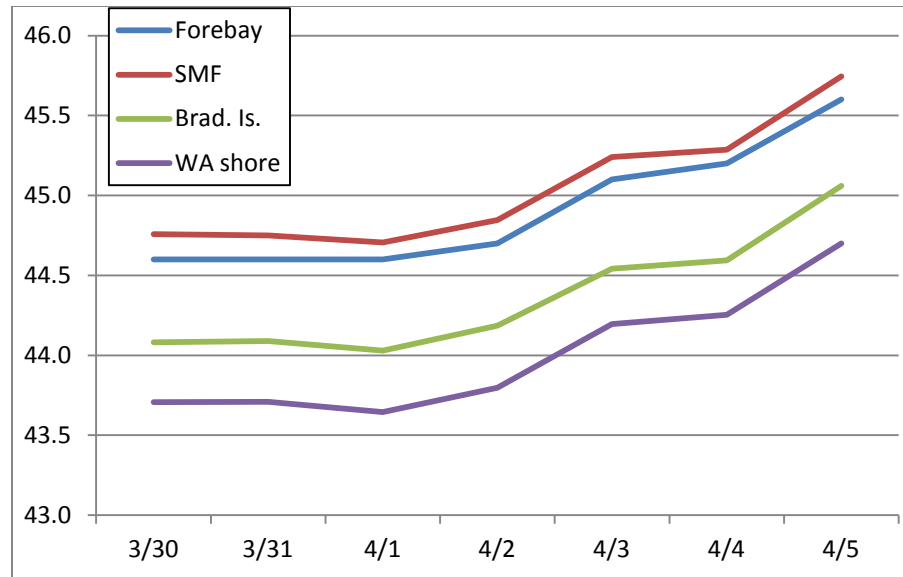
(3) PH2CC diffuser A2 is stuck closed, and the gate to B3 has been removed for repairs. Diffusers B7 and B8 have been closed until repairs to their diffuser motors can be performed. The next possible time period will be 2014/15 winter maintenance.

c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November. Forebay temperatures are found [online](#).

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

Date	SMF	Bradford Is.	WA shore	Forebay
3/30	44.8	44.1	43.7	44.6
3/31	44.8	44.1	43.7	44.6
4/1	44.7	44.0	43.6	44.6
4/2	44.8	44.2	43.8	44.7
4/3	45.2	44.5	44.2	45.1
4/4	45.3	44.6	44.3	45.2
4/5	45.7	45.1	44.7	45.6

(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.

(1) Calibration was checked on 02 April.

(2) 10 of 12 floating orifice gates (FOGs) are installed. Two gates remain out for maintenance. Stab plates were removed and SLEDs installed on 31 March.

(3) SLEDs are currently installed at all fishway entrances.

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 remains in service.

(3) The hydro-cannon remains in service.

(4) The B2CC remains open.

(5) The B2CC avian array was removed on 09-10 October 2013 to facilitate the

CENWP-OD-B

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WA Shore LFS repairs. The anchor line was replaced on 27 March, and the array will be reinstalled after spill season. The PH1, PH2, and spillway avian arrays remain intact.

g. Lamprey Fishways.

(1) The WA Shore AWS LPS was returned to service on 01 April.

(2) All other LPSs remain dewatered.

5. CONSTRUCTION:

- a. WA Shore LPS/LFS Installation. Repairs and modifications to the LPS continue.
- b. FGE Gatewell Flow Control. Contractors will install a flow control plate to the Unit 15A gatewell in preparation for flow testing in spring and summer.

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

7. TELETYPES CURRENTLY IN EFFECT:

- a. A teletype sent on 15 January states that effective immediately operate Unit 04 in a last-on/first-off basis due to required maintenance.
- b. A teletype sent on 17 March states that effective 17 March at 0800 hours, operate the B2CC continuously through 31 August at 2400.
- c. A teletype sent on 01 April provides the spill caps and updated lack of load conditions to be used from 0000 on 01 April to 2359 on 28 April.

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Bonneville Project