



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

30 October 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 43 of 2014, which covers the period from 19 – 25 October 2014

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 83.7 to 106.1 kcfs. Daily average project tailwater ranged from 8.5' to 10.8' msl. Daily average powerhouse forebay elevation ranged from 71.3' to 73.8' msl. Daily average water temperatures ranged from 62° to 64°F. Secchi disk measurements remained at 7.0' or greater all week.

b. Spill Bays 1 and 18 are open 6" during daylight hours to provide attraction flow for Cascades Island and B-branch, respectively. Daily spill remained at 1.1 kcfs all week.

(1) Due to a failed hoist brake, spill bay 17 has been operated manually since 11 March. It is scheduled to return to service by the end of November.

c. Unit Operation. Powerhouse Two is the priority powerhouse. Main unit drawdowns are measured every Tuesday and more frequently as needed.

(1) Table 1. Unit Outages.

Unit	OOS Date	RTS Date	Reason
11	0900 on 09 Sep 2012	---	High thrust bearing temps
13	1014 on 03 Sep	---	4-year overhaul

d. Unit 11 is estimated to return to service December 2014.

e. 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 daily.

(1) Table 2. Fish unit drawdowns, in feet.

Date	F1	F2
10/19	0.4	0.5
10/20	0.2	0.3
10/21	0.2	0.3
10/22	0.3	0.3
10/23	0.1	0.1
10/24	1.2	1.2
10/25	0.8	0.8

## 2. ACTIVITIES:

### a. Auxiliary Water System Closures.

- (1) FV1-1 was closed for cleaning from 0714 to 0722 on 20 October.
- (2) FV3-7 was closed for cleaning from 0748 to 0803 on 23 October.
- (3) FV3-9 was closed for cleaning from 0748 to 0803 on 23 October.

### b. STS/VBS inspections. No inspections occurred this week.

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

## 3. RESEARCH:

a. Avian Monitoring. Bird numbers are recorded 7 days a week between the dates of 01 April and 31 October.

(1) Table 3. Counts of tailrace foraging piscivorous birds.

Date	Gulls	Cormorants	Terns
10/19	5	5	0
10/20	4	7	0
10/21	30	28	0
10/22	40	20	0
10/23	8	15	0
10/24	38	25	0
10/25	56	54	0

b. NOAA Fisheries. Lamprey trapping at the AFF concluded on 03 October. Trapping at Cascade Island continues. Lamprey structure design testing in the FERL continues.

c. Normandeau – Fish Counting. Visual counting continues.

d. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring continues. No research fish were collected this week. Fallbacks recorded crossing the separator bars this reporting week: 11 steelhead, 45 salmon and 4 unknown salmonids. Truck releases of out-migrants from the Snake River continue. More details can be found on the [FPC web page](#).

e. USFWS - Fish Health. Shad and lamprey mortalities from the SMF are being held for inclusion in the National Wild Fish Health Survey. CRITFC is also testing saved lamprey mortalities for contaminants in conjunction with USFWS.

f. University of Idaho – NDE LFS. DIDSON and ACDV work at the NDE lamprey flume and fish entrance is scheduled for November.

g. WDFW Tule Counts. Tule and up-river bright enumeration began 19 August.

**4. FISHWAYS:**

a. Project biologists inspected 19 – 25 October.

b. Fish Passage Plan Observations.

(1) Table 4. FPP Out of Criteria items.

Date	Location	FPP Items	Cause	Response
<b>BRADFORD ISLAND – Nothing to report</b>				
<b>CASCADES ISLAND – Nothing to report</b>				
<b>WASHINGTON SHORE</b>				
10/24	UMT	Weir staff gauge < 0.9'	Unknown	None
10/24	Weir 38	Weir staff gauge < 0.9'	Unknown	None

(2) PH2CC diffusers A2 and B4 are 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. Repairs are planned for the winter maintenance period, scheduled to begin on 01 December.

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

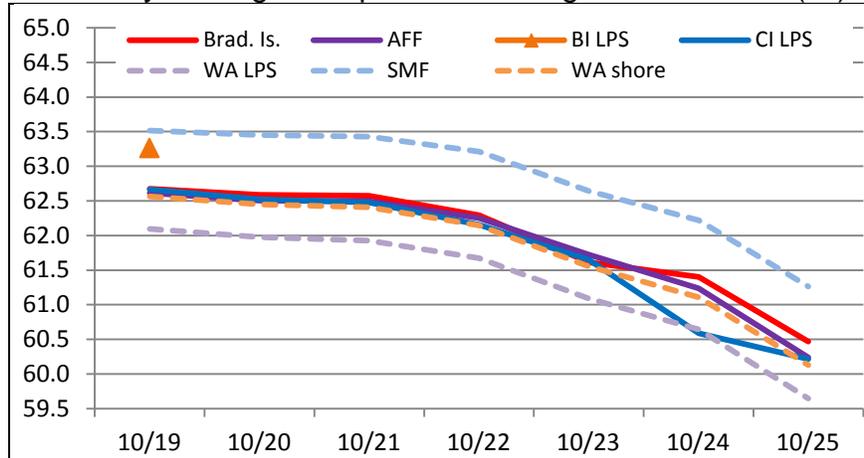
(1) Table 5. Daily Average Temperature in Degree Fahrenheit (°F).

Date	Fishways				Lamprey systems		
	Brad. Is.	AFF	SMF	WA shore	BI LPS*	CI LPS	WA LPS
10/19	62.7	62.6	63.5	62.6	63.3	62.7	62.1
10/20	62.6	62.5	63.4	62.5	OOS	62.5	62.0

10/21	62.6	62.5	63.4	62.4	---	62.5	61.9
10/22	62.3	62.3	63.2	62.1	---	62.2	61.7
10/23	61.6	61.7	62.6	61.6	---	61.6	61.1
10/24	61.4	61.2	62.2	61.1	---	60.6	60.6
10/25	60.5	60.2	61.3	60.1	---	60.2	59.6

\* The Bradford Island LPS was shut down for the season on 20 October.

(2) **Chart 3. 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 21 October.

(2) 11 of 12 floating orifice gates (FOGs) are installed; one gate is out for maintenance. FOG SLEDs are installed.

(3) All SLEDs are removed.

f. Juvenile Fishways.

(1) The south end gate of the Ice and Trash Sluiceway (ITS) was removed for repairs. Plating has been placed over the bottom of the guide slot to minimize fish impacts. Reinstallation dates are currently being coordinated.

(2) The DSM remains in service.

(3) The hydro-cannon remains in service.

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(4) The B2CC was periodically opened for brief amounts of time this week to allow passage of debris in the forebay.

(5) The PH1, PH2, and spillway avian arrays remain intact. The B2CC avian array was removed on 09 – 10 October 2013 to facilitate the WA Shore LFS repairs. The anchor line was replaced on 27 March. BON is planning to reinstall the array in October.

g. Lamprey Fishways.

(1) The NDE LFS/LPS was dewatered on 02 October. The butterfly valve is closed.

(2) The BI LPS was dewatered on 20 October.

(3) The CI LPS and WA Shore AWS LPS remain in service.

**5. CONSTRUCTION:**

a. Navigational lock mooring dolphin. Installation by a contractor is currently scheduled for the week of 10 November. During that time the lock will need to be shut down for two days.

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

**7. TELETYPES CURRENTLY IN EFFECT:**

a. A teletype sent on 29 August provides the spill caps and lack of load conditions to be used from 1 September through 31 December.

b. A teletype sent on 16 October requests that from 0700 to 1700 on 24 October, BON forebay operate within a band of 70.0' to 71.5', hard constraint. To achieve this operation, forebay elevations may operate as low as 70.0' from 0700 on 23 October to 1700 on 25 October. The normal minimum forebay elevation is 71.5'. This operation is to allow BON crews the ability to grease the lower spillway gate dogs.

c. A teletype sent on 22 October requests that from 0900 to 1300 on 31 October, BON forebay be maintained at 75.0' – 76.5' hard constraint, 75.5' – 76.5' soft constraint. This operation is for the Hood River Yacht Club to take boats in and out of the water.

d. A teletype sent on 25 October states that the BON navigational lock is closed due to a damaged barge in the nav lock chamber, currently undergoing repair, with no estimated time of return to service.

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e. A teletype sent on 25 October cancels the previous teletype stating the BON navigational lock is closed. The lock returned to service effective 1730.

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