



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

12 October 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 41 of 2014, which covers the period from 05 – 11 October 2014.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 80.3 to 114.9 kcfs. Daily average project tailwater ranged from 8.3' to 10.8' msl. Daily average powerhouse forebay elevation ranged from 75.7' to 74.9' msl. Daily average water temperatures ranged from 65° to 67°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 ranged from 1.1 to 1.2 kcfs this 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
12	0005 on 06 Oct	1616 on 09 Oct	Annual maintenance
13	1014 on 03 Sept	---	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
10/5	0.1	0.1
10/6	0.3	0.5
10/7	0.2	0.2
10/8	0.5	0.2
10/9	---	---
10/10	0.3	0.3
10/11	0.2	0.2

2. ACTIVITIES:

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

b. STS/VBS inspections.

Unit	Date	Run Hours	Comments
11	---	---	OOS
12	10/6	391	OK
13	10/6	0	OK
14	10/6	420	OK
15	10/6	268	OK
16	10/6	211	OK
17	10/6	306	OK
18	10/6	456	OK

c. Dewatering and Fish Salvage. No dewaterings 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
10/5	0	2	0
10/6	2	6	0
10/7	42	26	0
10/8	7	31	0
10/9	4	21	0
10/10	31	36	0
10/11	21	31	0

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- b. CRITFC – AFF. Adult salmonid sampling continues.
- c. NOAA Fisheries. Lamprey trapping at the AFF and Cascade Island continues. The biological portion of lamprey structure design testing in the FERL concluded on 03 October. Flow testing continues.
- d. Normandeu – Fish Counting. Visual counting continues.
- e. ODFW – AFF. Adult Coho sampling for an alternative gear study began on 30 September.
- f. 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: 19 salmon and 2 unknown salmonids. Truck releases of out-migrants from the Snake River began on 18 August. More details can be found on the [FPC web page](#).
- g. USFWS - Fish Health. When possible, shad and lamprey mortalities are being held for inclusion in the National Wild Fish Health Survey. CRITFC is also testing lamprey mortalities for contaminants in conjunction with USFWS.
- h. University of Idaho – AFF. USACE-funded adult salmonid sampling continues.
- i. WDFW Tule Counts. Tule and Up-river Bright enumeration began 19 August.

4. FISHWAYS:

- a. Project biologists inspected 05 – 11 October.
- b. Fish Passage Plan Observations.
 - (1) Table 4. FPP Out of Criteria items.

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND – Nothing to report				
10/5	PH1CC	N entrance diff > 2.0'	Computer malfunction	Repaired
10/6	A-branch	Water level > 1.2'	Unknown	None
CASCADES ISLAND – Nothing to report				
WASHINGTON SHORE – Nothing to report				

(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

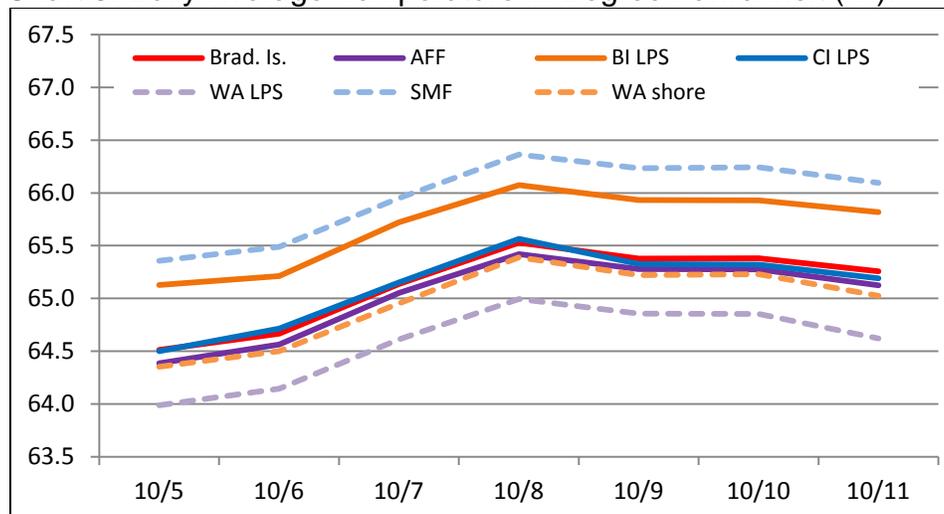
motors can be performed. Repairs are planned for the winter maintenance period, scheduled to begin on 01 December.

c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November. Forebay temperatures through 23 September can be found [online](#).

(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
10/5	64.5	64.4	65.4	64.4	65.1	64.5	64.0
10/6	64.7	64.6	65.5	64.5	65.2	64.7	64.1
10/7	65.1	65.1	66.0	65.0	65.7	65.2	64.6
10/8	65.5	65.4	66.4	65.4	66.1	65.6	65.0
10/9	65.4	65.3	66.2	65.2	65.9	65.3	64.9
10/10	65.4	65.3	66.2	65.2	65.9	65.3	64.9
10/11	65.3	65.1	66.1	65.0	65.8	65.2	64.6

(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 11 October.

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

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(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 is scheduled for 10 – 28 November.

(2) The DSM remains in service.

(3) The hydro-cannon remains in service.

(4) The B2CC remains closed.

(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, 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 02 October requests that BON forebay operate within a 1.5' band, hard constraint, from 0600 on 06 October through 1800 on 10 October, for treaty fisheries.

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c. A teletype sent on 09 October requests that BON forebay operate within a 1.5' band, hard constraint, from 0600 on 13 October through 1800 on 16 October, for treaty fisheries.

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