



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

22 July 2013

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 29 of 2013, which covers the period from 14 through 20 July 2013

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 182.9 to 214.9 kcfs. Daily average project tailwater ranged from 15.7' to 17.4' msl. Daily average powerhouse forebay elevation ranged from 74.1' to 75.1' msl. Daily average water temperatures ranged from 68°F to 70°F. Secchi disk measurements ranged from 5.0' to greater than 7.0'.

b. Spill Bays 1 and 18 provide attraction flow for Cascades Island and B-branch, respectively. Daily average spill ranged from 90.1 to 100.8 kcfs. Summer spill operations congruent with FPP section 2.2.3 took effect on 16 June.

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

(1) Unit 1 was out of service from 0001 on 15 July to 1315 on 18 July for annual maintenance on Bank 1/2.

(2) Unit 2 was out of service from 0001 on 15 July to 1315 on 18 July for annual maintenance on Bank 1/2.

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

(4) Unit 16 went out of service at 0748 on 29 April for digital governor install #1 / air gap install. It was returned to service at 1240 on 18 July.

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.

e. 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) FV3-7 was closed for cleaning from 0815 until 0857 on 15 July.
- (2) FV3-9 was closed for cleaning from 0815 until 0857 on 15 July.

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		677	OK
13		676	OK
14		653	OK
15		669	OK
16		47	OK
17		673	OK
18		672	OK

c. Dewatering and Fish Salvage. The following fish recoveries occurred this reporting week. On 18 June, Project Biologists recovered 2 Pacific Lamprey and approximately 12 Sculpin spp. from the Unit 16 tail logs. All Lamprey were returned to the forebay and Sculpin to the tailrace in good condition.

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 is currently being conducted by University of Idaho for NOAA until NOAA staff can be on site.

c. Normandeau – Fish Counting. Visual counting continues. Nighttime video counts commenced on 15 June.

d. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring continues. No research fish were collected. This week 200 subyearling Chinook were examined with no GBT symptoms observed. Fallbacks recorded crossing the separator

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bars this week: two salmon. Fallback observations are available at the FPC website: <http://www.fpc.org/adultsalmon/bonkeltcounts.htm>.

- e. University of Idaho – AFF. USACE funded adult salmonid sampling continues.
- f. University of Idaho – Lamprey. HD-PIT and JSATs tagging continues from the AFF traps.
- g. USDA - Avian Hazing. Land-based hazing continues.
- h. USFWS – National Fish Health Survey. Adult shad collection will begin in June. Juvenile shad collection is scheduled to begin in September.
- i. Yakama Nation – Shad. Collection of adult shad from the AFF for the white sturgeon broodstock program is scheduled to begin in June.
- j. Nez Perce – Lamprey. Collection of 238 lamprey for translocation studies concluded on 16 July.

4. FISHWAYS:

- a. Project biologists inspected 14 through 20 July.
- b. Fish Passage Plan Observations.

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

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND (BI)				
7/15	B-branch	Entrance diff > 2.0	PLC being calibrated	Ops adjusted
CASCADES ISLAND (CI) – Nothing to report				
WASHINGTON SHORE (WS)				
7/20	SDE	Diff < 1.0'	Unknown	None

(2) A-branch diffuser FG3-3 is partially open and FG3-6 is closed. Repairs will occur when the Bradford Island ladder is dewatered. The next possible time period will be 2013/14 winter maintenance.

(3) 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.

c. Fishway Temperatures. Temperatures are normally taken from 01 March through 30 November. New temperature probes have been ordered and will be installed upon delivery.

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

e. Adult Fishways.

(1) Calibration was not checked this reporting week.

(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.

(3) All SLEDs are removed.

(4) All ladders remain in service.

f. On 01 June nighttime lamprey operations commenced at PH2 fishway entrances.

g. Juvenile Fishways.

(1) Manual chaingates 1A and 1B remain open and are both set to 70' msl.

(2) Automated chaingates 3B, 6C and 10B are open and functioning in auto.

(3) DSM2 remains in service.

(4) The hydrocannon remains in service.

(5) The B2CC remains open.

(6) All avian arrays are installed

h. Lamprey Fishways.

(1) The Bradford Island LPS remains in service.

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

(3) The WA shore LPS/LFS was shut down on 24 June; no fish were found in the system prior to dewatering. The system was returned to service at 0830 on 12 July.

(4) Cascades Island LPS remains in service. On 14 July line switching cut power to the intake pumps; they returned to service the morning of 15 July.

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

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

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 09 April provides the 2013 spill schedule for fish passage, effective from 0001 on April 10 through 2400 on August 31. Operations for the B2CC and turbine units, as well as lamprey operations, are also provided for this period.

b. A teletype sent on 06 June states that effective immediately until further notice, operate turbine units as directed in the FPP and within the 1% mid-range (13-15 kcfs per unit). To pass increasing flow, operate PH2 units within the mid-range of 1% peak efficiency, then operate PH1 units up to the 1% upper limit, then operate PH1 units to the best operating point (BOP), and finally PH2 units up to 16.5 kcfs per unit. Operating PH2 units within the mid-range of 1% is intended to reduce gateway turbulence and improve hydraulics for fish passage.

c. A teletype sent on 09 July requests that BON forebay be maintained between elevation 75.0 - 76.5' as a hard constraint and 75.5 - 76.5' as a soft constraint from 1400 to 2000 hours on 10 August for a sail boat race near Cascade Locks.

d. A teletype sent on 11 July requests that from 0600 on 15 July until 1800 on 18 July, operate Bonneville pool within a 1.5' band as a hard constraint for treaty fishing.

e. A teletype sent on 12 July updates the spill priority list and spill caps for fish passage season starting 15 May until further notice based on observed TDG data.

f. A teletype sent on 16 July requests that Bonneville forebay be maintained no lower than 74.5' as a hard constraint from 1000 to 1700 on 20 and 21 July for outrigger races near Stevenson.

g. A teletype sent on 17 July requests that Bonneville forebay be maintained above 74.5' as a hard constraint and 75.0' as a soft constraint from 1100 to 1800 on 27 and 28 July for an amateur kite board event at Stevenson.

h. A teletype sent on 18 July requests that Bonneville pool operate within a 1.5' band as a hard constraint from 0600 on 22 July to 1800 on 25 July for treaty fishing.

i. A teletype sent on 19 July states that effective 24 and 25 July from 0700 to 1700, operate PH2 units in AGC (automatic generation control) in order to complete maintenance work on units 15 and 16. Outside these dates and times continue to

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operate PH2 on local control to implement operations described in a previous teletype (see 7.B, above).

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