



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

13 August 2013

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 32 of 2013, which covers the period from 04 through 10 August 2013

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 147.8 to 171.9 kcfs. Daily average project tailwater ranged from 13.3' to 14.9' msl. Daily average powerhouse forebay elevation ranged from 74.1' to 76.2' msl. Daily average water temperatures ranged from 71°F to 73°F. Secchi disk measurements ranged from 6.0' to greater than 7.0'.

b. Spill Bays 01 and 18 provide attraction flow for Cascades Island and B-branch, respectively. Daily average spill ranged from 88.5 to 89.3 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 01 went out of service at 0946 on 23 July for a 5 year overhaul.

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

(3) Unit 12 went out of service at 0713 on 22 July for digital governor installation.

(4) Unit 18 went out of service from 0700 to 1412 on 07 August for Fish Unit trash rake inspection.

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.

(1) Fish Unit 01 went out of service from 0700 to 1616 on 07 August for trash rake inspection and PH2 ROV inspection.

(2) Fish Unit 02 went out of service from 0700 to 1617 on 07 August for trash rake inspection and PH2 ROV inspection.

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(3) 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) FV1-1 was closed for a ROV inspection from 0802 until approximately 1500 on 05 August.

(2) FV5-3 was closed for a ROV inspection from 0710 until 1100 on 06 August.

(3) FV5-4 was closed for a ROV inspection from 0710 until 1100 on 06 August.

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
12-18	N/A	N/A	Inspection scheduled for 19 August

c. Dewatering and Fish Salvage. No dewatering or fish salvage activities occurred this reporting week.

3. RESEARCH:

a. CRITFC. Annual Chinook, Coho, sockeye, and steelhead sampling in the AFF continues. Modified trapping procedures under FPP App. G, Section 4 occurred on 5 August.

b. NOAA – Lamprey. LPS count network installed. HD-PIT tagging continues from the AFF traps.

c. Normandeau – Fish Counting. Visual counting continues.

d. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring continues. Higher temperature sampling protocols continued this week due to water temperatures above 70°F. Modified sampling during higher temperatures means Index/Condition sampling will take place every other day until the daily average

descends to 69.5°F. Sample and bypass mode will occur on alternating 24 hour periods (0700-0700). No research fish were collected. This week 200 subyearling Chinook were examined with no observed GBT symptoms. No fallbacks were recorded crossing the separator bars this week. 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. Trapping in the AFF ceased on 5 August when daily average river temperatures reached 70°F.

f. University of Idaho – Lamprey. HD-PIT and JSATs tagging continues from the AFF traps.

g. USDA - Avian Hazing. Land-based hazing ceased on 31 July.

4. FISHWAYS:

a. Project biologists inspected 4 through 10 August.

b. Fish Passage Plan Observations.

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

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND (BI)				
8/9	A-branch	Water level > 1.1'	Unknown	None
8/5	PH2CC	Entrance diffs < 1.0'	ROV inspection	None
8/7-9	PH2CC	South diff < 1.0'	Faulty collection channel sensor	TR in place - part ordered
CASCADES ISLAND (CI) – Nothing to report				
WASHINGTON SHORE (WS) – Nothing to report				
All week	PH2CC	Velocity meter OOS	Weight detached	TR in place
8/7	PH2CC	Entrance diffs < 1.0'	ROV inspection	None

(2) A-branch diffuser FG3-3 is partially open in manual. FG3-5 is open in manual. FG3-6 is open half way in manual. 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.

(4) PH2CC diffuser A2 is stuck closed. Diffuser B7 has been closed until repairs to the limit torque can be performed. The next possible time period will be 2014/15 winter maintenance.

c. Fishway Temperatures. Temperatures are normally taken from 01 March through 30 November. Table 5. Daily Average Temperature in Degree Fahrenheit (F).

Date	WA Shore Average	BI Average	AFF Average	SMF Average
8/4	69.460	69.843	69.567	70.316
8/5	70.069	70.377	70.119	70.905
8/6	70.714	70.922	70.797	71.563
8/7	71.056	71.310	71.160	71.918
8/8	70.655	71.127	70.726	71.586
8/9	70.343	70.676	70.431	71.259
8/10	70.331	70.609	70.417	71.208

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

(5) The annual summer fishway inspection occurred on 5-7 August.

f. 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.

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(4) The hydrocannon remains in service.

(5) The B2CC remains open.

(6) All avian arrays are installed.

g. 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 remains in service. The LFS system was flushed the evening of 10 August.

(4) Cascades Island LPS remains in service.

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 gatewell turbulence and improve hydraulics for fish passage.

c. A teletype sent on 06 August updates the spill priority list and spill caps for fish passage season, which started 15 May, until further notice based on observed TDG data.

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