



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PORTLAND DISTRICT
BONNEVILLE LOCK AND DAM PROJECT
PO BOX 150
CASCADE LOCKS OR 97014-0150

CENWP-OD-B

12 August 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 32 of 2014, which covers the period from 03 – 09 August 2014

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 153.6 to 172.7 kcfs. Daily average project tailwater ranged from 13.6' to 15.0' msl. Daily average powerhouse forebay elevation ranged from 74.1' to 75.7' msl. Daily average water temperatures ranged from 70° to 71 °F. Secchi disk measurements remained at 7.0' or greater all week.

b. Spill Bays 01 and 18 provide attraction flow for Cascades Island and B-branch, respectively. Summer spill operations congruent with FPP section 2.2.3 took effect on 16 June. Daily spill ranged from 90.3 to 100.8 kcfs this week.

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
1	0037 on 21 Jul	1623 on 31 Jul	Bank 1/2 annual
2	0854 on 07 Jul	---	5-yr overhaul, bank 1/2 annual
9	0001 on 4 Aug		Annual, bank 9/10
11	0900 on 09 Sep 2012	---	High thrust bearing temps
12	0358 on 4 Aug	1035 on 4 Aug	Governor repair
12	1453 on 5 Aug	1529 on 5 Aug	Digital governor work
14	1535 on 5 Aug	1638 on 5 Aug	Digital governor work
15	0001 on 4 Aug	1115 on 7 Aug	Annual
16	1115 on 4 Aug	1524 on 4 Aug	Digital governor work
16	0630 on 5 Aug	1340 on 5 Aug	Digital governor work
17	0829 on 6 Aug	0939 on 6 Aug	Digital governor work
18	0953 on 6 Aug	1054 on 6 Aug	Digital governor work

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 daily.

(1) F1 and F2 were placed on stand-by from 1033 until 1556 on 5 August and from 1418 until 1536 on 6 August for an ROV inspection.

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

Date	F1	F2
8/03	0.4	0.5
8/04	0.3	0.3
8/05	0.3	0.2
8/06	0.4	0.4
8/07	0.6	0.6
8/08	0.4	0.4
8/09	0.2	0.3

2. ACTIVITIES:

a. Auxiliary Water System Closures. The following closures occurred this week.

- (1) FV 3-7 and FV 1-1 were closed from 0800 until 1145 on 04 August for an ROV inspection at PH1.
- (2) FV 4-3 and 4-4 were closed from 1310 until 1545 on 04 August for an ROV inspection at B-branch.
- (3) FV 5-3 and 5-4 were closed from 0825 until 1130 on 05 August for an ROV inspection at Cascades Island.

b. STS/VBS inspections.

Unit	Date	Run Hours	Comments
11	---	---	OOS
12	8/07	680	OK
13	8/07	625	OK
14	8/07	510	OK
15	8/07	371	OOS
16	8/07	268	OK
17	8/07	660	OK
18	8/07	688	OK

c. Dewatering and Fish Salvage. No dewatering or salvage activities 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
8/03	1	6	0
8/04	0	0	0
8/05	No Counts		
8/06	0	0	0
8/07	0	0	0
8/08	0	2	0
8/09	1	0	0

b. CRITFC – AFF. Sampling continues with modified protocols for high temps.

c. NOAA Fisheries. An impedance counter is currently being tested at the WA Shore AWS LPS. Lamprey trapping at the AFF in conjunction with University of Idaho continues. Lamprey structure design testing in the FERL continues.

d. Normandeau – Fish Counting. Visual counting continues.

e. 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: 1 salmon. Results of this week's Gas Bubble Trauma (GBT) examinations: 186 subyearling Chinook examined, with one fish (0.5%) exhibiting GBT symptoms observed. Higher temperature sampling protocols were initiated for the second time this season on 30 July (sample end-date of 31 July) when water temperatures ascended to 70°F. Modified higher temperature sampling will take place every other day (0700-0700) until the daily average descends to 69.5°F. More details can be found on the [FPC web page](#).

f. University of Idaho – AFF. USACE-funded adult salmonid sampling halted on 28 July once river temperatures hit 70°F. Lamprey trapping and tagging at the AFF in conjunction with NOAA continues. IR camera monitoring in the Bradford Island serpentine section began on 16 July.

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. WDFW Tule Counts. Tule and Up-river Bright enumeration is scheduled to begin mid-August.

4. FISHWAYS:

a. Project biologists inspected 03, 04, and 06 – 09 August.

b. Fish Passage Plan Observations.

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

Date	Location	FPP Items	Cause	Response
8/05	BON	No Fisheries inspection	ROV	N/A
BRADFORD ISLAND				
8/09	A-branch	Incorrect diffuser ops	Unknown	Ops adjusted
7/27-28	A-branch	Water level > 1.1'	Unknown	None
CASCADES ISLAND – Nothing to report				
WASHINGTON SHORE				
8/08	Weir 38	Water level < 0.9'	Unknown	None

(2) 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.

(3) Spill bay 17 experienced a hoist brake failure on 11 March. The gate is currently dogged off at 2.9 ft.

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

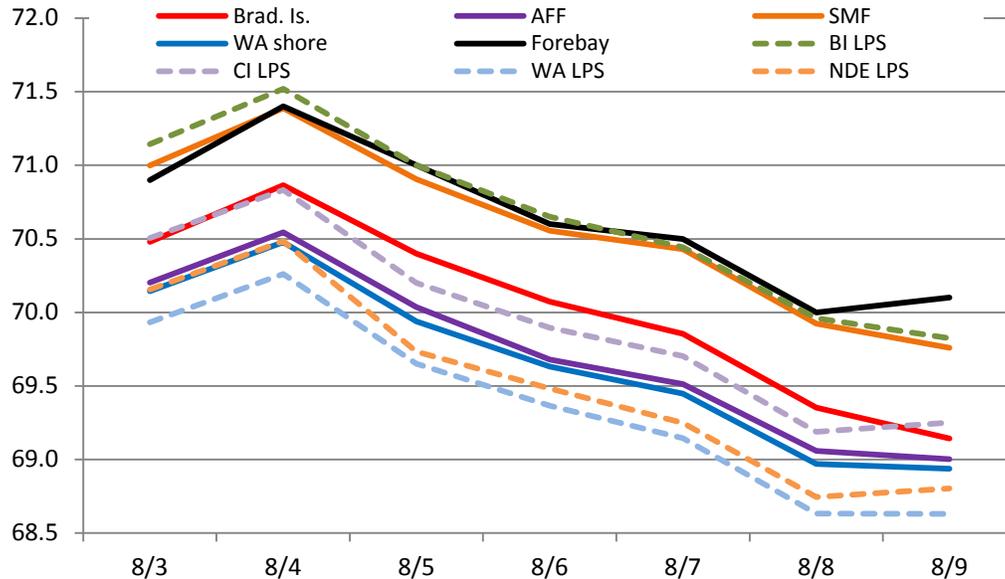
(1) Table 5. Daily Average Temperature in Degree Fahrenheit (°F).

Date	Fishways				Forebay	Lamprey systems			
	Brad. Is.	AFF	SMF	WA shore		BI LPS	CI LPS	WA LPS	NDE LPS
8/3	70.5	70.2	71.0	70.1	70.9	71.1	70.5	69.9	70.2
8/4	70.9	70.5	71.4	70.5	71.4	71.5	70.8	70.3	70.5
8/5	70.4	70.0	70.9	69.9	71	71.0	70.2	69.7	69.7
8/6	70.1	69.7	70.6	69.6	70.6	70.7	69.9	69.4	69.5
8/7	69.9	69.5	70.4	69.4	70.5	70.4	69.7	69.1	69.2
8/8	69.4	69.1	69.9	69.0	70	70.0	69.2	68.6	68.7
8/9	69.1	69.0	69.8	68.9	70.1	69.8	69.3	68.6	68.8

(2) Chart 3. Daily Average Temperature in Degree Fahrenheit (°F).

CENWP-OD-B

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 32 of 2014, which covers the period from 03 – 09 August 2014



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

e. Adult Fishways.

(1) Calibration was not checked this week.

(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) 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.

CENWP-OD-B

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 32 of 2014, which covers the period from 03 – 09 August 2014

(5) 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, and the array will be reinstalled after spill season. The PH1, PH2, and spillway avian arrays remain intact.

g. Lamprey Fishways.

(1) The BI LPS, CI LPS, NDE LPS, and WA Shore AWS LPS remain in service.

5. CONSTRUCTION: Nothing to report.

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

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 17 March states that effective 17 March at 0800 hours, operate the B2CC continuously through 31 August at 2400.

b. A teletype sent on 30 June updates the spill caps and lack of load conditions to be used from 11 June through 31 August.

c. A teletype sent on 13 June requests BON forebay be maintained from 74.5' to 76.5' hard constraint and from 75.5' to 76.5' soft constraint from 1400 – 2000 on 08 August and from 1500 – 2200 on 09 August so that sailboats can be placed and removed from the water. The request may be cancelled at 1500 on 08 August if high winds occur.

d. A teletype sent on 13 June lists the BON summer spill requirements in effect from 0430 on 16 June until 2400 on 31 August.

e. A teletype sent on 24 July requests that the BON forebay be maintained at 74.0-76.5', hard constraint; and 75.0-76.5', soft constraint for the berthing of keel boats at Stevenson from 1600 on 01 August until 1100 on 02 August, and from 1600 on 02 August until 1100 on 03 August.

JERRY A. CARROLL
Operations Manager
Bonneville Project