

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 09 of 2015, which covers the period from 22 to 28 February 2015.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 199.8 to 238.5 kcfs. Daily average powerhouse forebay elevation ranged from 72.8 to 74.1 msl. Daily average project tailwater ranged from 16.9 to 19.2 msl. Secchi disk measurements ranged from 4' to 6'. Daily average water temperature remained at 42°F this week.

b. Spill Bay 18 provides attraction flow for the B-branch ladder. Spill bay 01 was closed from 01 December 2014 – 25 February 2015 due to the dewatering of Cascades Island for winter maintenance. Daily average spill ranged from 0.6 to 106.3 kcfs.

c. Unit Operation. Powerhouse one became the priority powerhouse on 01 December. Main unit draw downs are measured every Monday 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	0013 on Feb 17	2112 on 24 Feb	T11 and T12 maintenance
13	0013 on Feb 17	2124 on 24 Feb	T11 and T12 maintenance
14	0013 on Feb 17	2131 on 24 Feb	T11 and T12 maintenance
14	1418 on 26 Feb	1603 on 26 Feb	Raking trash
15	1000 on 10 Feb	---	4 year overhaul
16	0013 on Feb 17	2122 on 24 Feb	T11 and T12 maintenance
16	1249 on 26 Feb	1416 on 26 Feb	Raking trash
17	0013 on Feb 17	2115 on 24 Feb	T11 and T12 maintenance
17	0853 on 26 Feb	1135 on 26 Feb	Raking trash
18	0013 on Feb 17	2138 on 24 Feb	T11 and T12 maintenance
18	0722 on 26 Feb	0851 on 26 Feb	Raking trash

d. Unit 11 is estimated to return to service March 2015.

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) Unit F1 went out of service on 0001 on 01 December 2014 for a two-year overhaul. It was returned to service at 2130 on 24 February 2015.

(2) Unit F2 went out of service at 1000 on 15 December 2015 for annual maintenance and new wiring. It was returned to service at 2130 on 24 February 2015.

(3) Table 3. Fish unit drawdowns, in feet.

Date	F1	F2
2/25	0.3	0.3
2/26	0.3	0.4
2/27	0.3	0.3
2/28	0.2	0.2

2. ACTIVITIES:

- a. Auxiliary Water System Closures. No closures occurred this week.
- b. STS/VBS inspections. Table 2. STS and VBS inspection

<i>Unit</i>	<i>Date</i>	<i>Comments</i>
11	N/A	OOS
12-14	17 – 18 Feb	STS install
15	N/A	OOS
16-18	17 – 18 Feb	STS install

- c. Dewatering and Fish Salvage. No dewaterings or fish salvages to report.

3. RESEARCH:

- a. Fisheries Field Unit – Sea Lion Observations. Observations commenced on 13 January and will continue through 29 May.
- b. NOAA – FGE testing. Biological testing of the flow control plates installed in Unit 15-A and -B gatewells using subyearling Chinook is scheduled to begin on 16 March. Review the FFDRWG update form [here](#).
- c. Normandeau – Fish Counting. Video monitoring continues.
- d. University of Idaho – Hydraulics. A study to measure velocity in the Bradford Island serpentine section using an Acoustic Doppler Velocimeter (ADV) was conducted from 25 – 27 February. See [15BON01](#).

4. FISHWAYS:

- a. Project biologists inspected 23 – 26 February.
- b. Fish passage plan observations.
 - (1) Table 4. FPP out of criteria items.

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND				
2/25-26	A-branch	Weir water level > 1.1'	Suspected FV3-7 conduit leak	None
CASCADES ISLAND – Nothing to report				
WASHINGTON SHORE – Nothing to report				

(2) WG-1, one of the south PH1CC entrances, experienced a gate failure on 17 November. The gate fell and the picking beam fell into the water. Repairs will require the ITS to be closed and are being coordinated for August, 2015.

(3) A-branch diffuser FG3-3 is mechanically bound. Repairs are not possible until A-branch is dewatered below tailwater during the 2015/16 winter maintenance period.

(4) PH2CC diffuser A2 was unable to be repaired during winter maintenance due to time constraints and remains closed. The gate for diffuser B5 was removed for repairs and therefore cannot be closed.

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

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

e. Adult Fishways.

- (1) The Washington Shore fishway returned to service at 0900 on 25 February.
- (2) The Cascades Island and UMT fishway returned to service at 1400 on 26 February.
- (3) Calibration occurred on 24 February.
- (4) 11 of 12 floating orifice gates (FOGs) are installed; one gate is out for maintenance. FOG SLEDs are installed.
- (5) The SLEDs for the PH2 entrances were installed prior to the return of the Washington shore fishway. All other SLEDs remain removed until the week of 01 March.

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 for August, 2015.

(2) The hydro-cannon was returned to service at 1140 on 25 February.

(3) The B2CC was closed at 2152 on 24 February.

(4) The DSM remains in service.

g. Lamprey Fishways.

(1) All LPSs remain out of service.

5. CONSTRUCTION:

a. Contractors replaced the flow-control plate in the gatewell of Unit 15A this week. A new flow-control plate in the gatewell of Unit 15B is scheduled to be completed on 11 March. Review the FFDRWG update form [here](#).

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

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 16 January provides updated BON tailwater operations for Chum incubation. Effective 1500 on 19 December until further notice, operate to maintain a minimum tailwater of 13.0' at all hours. This operation negates previous Chum tailwater operation teletypes.

b. A teletype sent on 19 February updates the spill caps and lack of load conditions to be used from 19 February until further notice.

c. A teletype sent on 13 February states that effective immediately through 2400 on 9 April (non-spill season), any involuntary spill must first pass via the B2 corner collector (B2CC) prior to operating the spillway, unless the amount of involuntary spill is less than that required to operate the B2CC.

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