

## MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 11 of 2015, which covers the period from 08 to 14 March 2015.

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 156.6 to 204.1 kcfs. Daily average powerhouse forebay elevation ranged from 73.2 to 74.9 msl. Daily average project tailwater ranged from 14.1 to 17.1 msl. Secchi disk measurements ranged from 4.5' to 6'. Daily average water temperature ranged from 42 to 44°F this week.

b. Spill Bays 01 and 18 are open during daytime hours to provide attraction flow for Cascades Island and B-branch, respectively. Daily average spill ranged from 1.2 to 1.3 kcfs.

c. Unit Operation. Powerhouse two became the priority powerhouse on 01 March. 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	1600 on 10 Mar 2015	High thrust bearing temps
12	0001 on 09 Mar	1437 on 12 Mar	Annual maintenance
15	1000 on 10 Feb	---	4 year overhaul

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) Unit F1 was out of service from 0113 to 0756 on 11 March due to a trip caused by an issue with the gate coincidence and the gate-lock switch.

(2) Unit F2 was placed in reserve service from 0810 to 0951 and again from 1107 to 1248 on 11 March in order to preemptively repair the gate-lock switch.

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

Date	F1	F2
3/8	0.5	0.3
3/9	0.6	0.4
3/10	0.6	0.5
3/11	0.1	0.3

3/12	0.4	0.4
3/13	0.2	0.1
3/14	0.4	0.4

**2. ACTIVITIES:**

- a. Auxiliary Water System Closures. No closures this week.
- b. STS/VBS inspections. No inspections occurred this week.
- c. Dewatering and Fish Salvage.

(1) On 9 March, Project Biologists inspected the Nav. Lock sill. No fish were found.

**3. RESEARCH:**

a. CRITFC – Sea Lion hazing. Hazing by boat began on 6 March and will continue through May.

b. Fisheries Field Unit – Sea Lion Observations. Observations commenced on 13 January and will continue through 29 May.

c. NOAA – FGE testing. Biological testing of the flow control plate installed in the Unit 15-A gatewell is scheduled to begin on 1 April using subyearling Chinook. Testing in 15-C will occur in May. Review the FFDRWG update form [here](#).

d. Normandeau – Fish Counting. Video monitoring continues.

e. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring commenced at 0700 on 3 March. No research fish were collected this week. These fallbacks were recorded crossing the separator bars: 12 steelhead, one of those after the B2CC opened on 10 March. More details can be found on the [FPC web page](#).

**4. FISHWAYS:**

- a. Project biologists inspected 08 – 14 March.
- b. Fish passage plan observations.

(1) Table 4. FPP out of criteria items.

Date	Location	FPP Items	Cause	Response
<b>BRADFORD ISLAND</b>				
3/8-10,12-14	A-branch	Weir water level > 1.1'	Suspected FV3-7 conduit leak	None
<b>CASCADES ISLAND – Nothing to report</b>				
<b>WASHINGTON SHORE – Nothing to report</b>				

(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 and remains closed. The gate for diffuser B5 was removed for repairs and therefore cannot be closed.

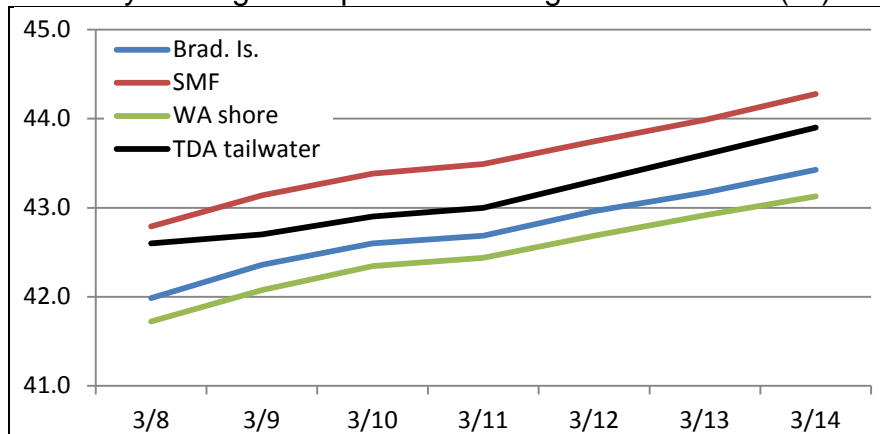
c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November. Forebay temperatures can be found [online](#).

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

Date	Fishways			
	Brad. Is.	SMF	WA shore	TDA tailwater
3/8	42.0	42.8	41.7	42.6
3/9	42.4	43.1	42.1	42.7
3/10	42.6	43.4	42.3	42.9
3/11	42.7	43.5	42.4	43.0
3/12	43.0	43.7	42.7	43.3
3/13	43.2	44.0	42.9	43.6
3/14	43.4	44.3	43.1	43.9

\*The BON forebay temperature station has not yet been activated.

(2) Chart 1. 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 occurred on 13 March.

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

(3) The SLEDs for the PH2 entrances were installed prior to the return of the Washington shore fishway. The Cascades Island SLED was installed on 01 March. PH1CC entrance SLEDs and the B-branch entrance SLED were installed on 04 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 remains in service.

(3) The B2CC was opened at 1200 on 10 March.

(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 on 25 February. A new flow-control plate in the gatewell of Unit 15B was completed on 11 March. Review the FFDRWG update form [here](#).

b. The Navigational Lock went out of service at 1029 on 09 March for annual maintenance.

**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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