

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 14 of 2015, which covers the period from 29 March to 04 April 2015.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 220.4 to 243.4 kcfs. Daily average powerhouse forebay elevation ranged from 73.5 to 75.8 msl. Daily average project tailwater ranged from 18.3 to 19.3 msl. Secchi disk measurements ranged from 5.0' to 7.0'. Daily average water temperature ranged from 48 to 49°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 1.4 kcfs.

c. Unit Operation. Powerhouse two remains the priority powerhouse. Main unit draw downs are measured every Monday and more frequently as needed.

(1) Table 1. Unit Outages.

Unit	OOS Date	RTS Date	Reason
10	1040 on 30 Mar	1422 on 30 Mar	Rake trash
10	1239 on 31 Mar	1552 on 31 Mar	Rake trash
13	0556 on 03 Apr	0951 on 03 Apr	Broken flex plate repair

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) Table 2. Fish unit drawdowns, in feet.

Date	F1	F2
3/29	0.4	0.3
3/30	0.3	0.4
3/31	0.6	0.4
4/1	0.7	0.5
4/2	0.4	0.3
4/3	0.6	0.5
4/4	0.6	0.5

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 31 March, Project Biologists inspected the draft tube for the station service unit (Unit 0). 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 began on 1 April using sub-yearling Chinook. Testing in 15-C will occur in May. Review the FFDRWG update form [here](#).
- d. Normandeau – Fish Counting. Video monitoring continued until 01 April, when visual counting commenced.
- e. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring continues. No research fish were collected this week. SbyC is active for NOAA research as of 30 March. These fallbacks were recorded crossing the separator bars: 32 steelhead. More details can be found on the [FPC web page](#).
- f. USDA – Sea lion and avian hazing. Land-based hazing began on 18 March.

4. FISHWAYS:

- a. Project biologists inspected 29 March – 04 April.
- b. Fish passage plan observations.

(1) Table 3. FPP out of criteria items.

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND				
3/30	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. WG-2 has been closed to improve entrance differentials. 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.

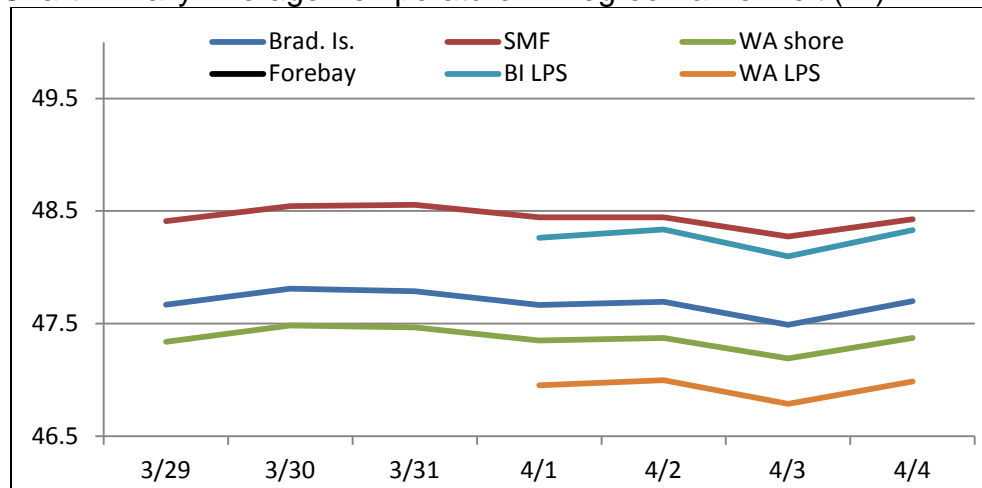
c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November. Forebay temperatures can be found [online](#).

(1) Table 4. Daily Average Temperature in Degree Fahrenheit (°F).

Date	Fishways			Lamprey		Forebay*
	Brad. Is.	WA shore	SMF	BI LPS	WA LPS	
3/29	47.7	47.3	48.4	OOS	OOS	N/A
3/30	47.8	47.5	48.5	---	---	
3/31	47.8	47.5	48.6	---	---	
4/1	47.7	47.3	48.4	48.3	47.0	
4/2	47.7	47.4	48.4	48.3	47.0	
4/3	47.5	47.2	48.3	48.1	46.8	
4/4	47.7	47.4	48.4	48.3	47.0	

*BON forebay readings were not available online at the time of reporting.

(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 03 April.

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

(3) All SLEDs remain installed.

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 remains open.

(4) The DSM remains in service.

g. Lamprey Fishways.

(1) The Bradford Island LPS and the WA AWS LPS were returned to service at ~1400 on 31 March.

(2) The PH2 NDE LFS/LPS and the Cascades Island LPS remain out of service.

5. CONSTRUCTION:

a. CRITFC plans to install PIT antennas in the AFF entrance and outside return pool channel the week of 06 April.

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 30 March updates the spill caps and lack of load conditions to be used from 0000 on 01 April until further notice.

c. A teletype sent on 31 March states that effective 01 April through ~04 June, operate PH2 units 14 and 15 as defined in the schedule for the PH2 gateway evaluation. Test period dates may be adjusted by the researchers as necessary with coordination with the BON control room. Normal unit operations will resume during non-test periods.

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