

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 26 of 2015, which covers the period from 21 – 27 June 2015.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 112.2 to 157.5 kcfs. Daily average powerhouse forebay elevation ranged from 73.4 to 74.3 msl. Daily average project tailwater ranged from 10.3 to 13.8 msl. Secchi disk measurements ranged from 6.0' to 7.0' or greater. Daily average water temperature ranged from 68 to 70°F this week.

b. Summer spill started on 16 June. Daily average spill ranged from 68.2 to 93.4 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
3	0001 on 15 Jun	1447 on 25 Jun	RAS testing, Bank 3/4 outage
4	0001 on 15 Jun	1447 on 25 Jun	RAS testing, Bank 3/4 outage
14	0651 on 08 Jun	1015 on 25 Jun	Wicket gate seal replacement
15	0700 on 24 Jun	0930 on 24 Jun	FGE trash rack swap

d. Fish Units. Second Powerhouse fish units provide attraction flow for the Washington Shore (WS) fish ladder. From 01 June – 31 August, units may be placed in standby or the output reduced during nighttime spill hours to reduce entrance velocities for lamprey.

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

Date	F1	F2
6/21	0.1	0.1
6/22	0.2	0.3
6/23	0.1	0.1
6/24	0.1	0.2
6/25	0.3	0.3
6/26	0.1	0.2
6/27	0.4	0.3

2. ACTIVITIES:

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

(1) On 24 June, Project Biologists recovered 1 smallmouth bass, 1 bluegill, and ~15 sculpin from the Unit 14 tail logs. All fishes were returned to the tailrace in good condition.

3. RESEARCH:

- a. CRITFC – AFF. Adult salmonid sampling began on 15 April and continues.
- b. Normandeau – Fish Counting. Visual counting continues.

c. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring continues. No research fish were collected this week. SbyC is active for NOAA and USFWS. Gas Bubble Trauma (GBT) evaluations began 25 April. This week’s results: 153 subyearling Chinook examined with no GBT symptoms. Elevated mortality occurred on three separate days with causes unknown; the Fish Health Center is evaluating the fish. These fallbacks were recorded crossing the separator bars: 2 steelhead, 2 salmon. More details can be found on the [FPC web page](#).

- d. USDA – Sea lion and avian hazing. Land-based hazing began on 18 March.

4. FISHWAYS:

- a. Project biologists inspected 21 – 27 June.
- b. Fish passage plan observations.

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

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND – See below				
CASCADES ISLAND				
6/22	CI fish entrance	Differential < 1.0'	FV5-4 OOS	See 4.1.6, below
WASHINGTON SHORE – See below				

(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) B-branch gate 4N, adjacent to the fish entrance, is broken and closed. 4S is currently open in its place.

(5) 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.

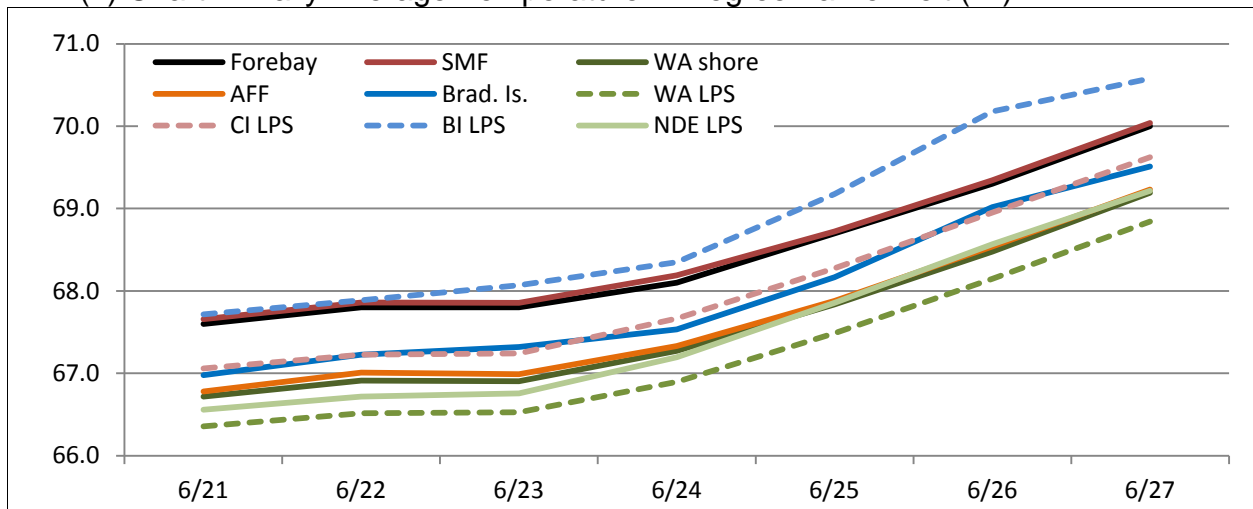
(6) FV5-4 was discovered to have mechanical problems on 21 April. It is currently closed and in manual. Diffusers FG3-9 through 15 are open and in manual to compensate. Repairs have been coordinated for October. See [15BON03](#).

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	Forebay	Fishways				Lamprey			
		Brad. Is.	WA shore	AFF	SMF	BI LPS	WA LPS	CI LPS	NDE LPS
6/21	67.6	67.0	66.7	66.8	67.7	67.7	66.4	67.1	66.6
6/22	67.8	67.2	66.9	67.0	67.9	67.9	66.5	67.2	66.7
6/23	67.8	67.3	66.9	67.0	67.9	68.1	66.5	67.2	66.8
6/24	68.1	67.5	67.3	67.3	68.2	68.4	66.9	67.7	67.2
6/25	68.7	68.2	67.8	67.9	68.7	69.2	67.5	68.3	67.9
6/26	69.3	69.0	68.5	68.5	69.3	70.2	68.1	69.0	68.6
6/27	70.0	69.5	69.2	69.2	70.0	70.6	68.8	69.6	69.2

(2) Chart 1. Daily Average Temperature in Degree Fahrenheit (°F).



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

e. Avian Monitoring. Bird counts are made between 01 April and 31 October.

(1) Table 5. Counts of tailrace foraging piscivorous birds.

Date	Gulls	Cormorants	Terns	Wh. Pelicans	Grebes
6/21	0	13	0	0	0
6/22	0	10	0	0	0
6/23	0	0	0	0	0
6/24	0	8	0	0	0
6/25	0	5	0	0	0
6/26	0	0	0	0	0
6/27	0	0	0	0	0

f. Adult Fishways.

(1) Calibration occurred on 26 June.

(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.

(4) All adult fishways were placed in shad mode on 30 May.

g. 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.

h. Lamprey Fishways.

(1) All LPS's 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 30 March updates the spill caps and lack of load conditions to be used from 0000 on 01 April until further notice.

b. A teletype sent on 08 April defines the spring and summer spill operations to be used from 10 April through 31 August.

c. A teletype sent on 11 June requests that BON pool operate within a 1.5' band, hard constraint, from 16 June through 02 July during the periods and times described within for treaty fishing.

d. A teletype sent on 18 June requests that from 0800 to 2000 daily during 03 – 05 July, operate BON forebay at less than 75.0 msl, hard constraint, to expose the Hood River sand bar for recreational users.

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