

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 28 of 2015, which covers the period from 05 – 11 July 2015.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 113.4 to 152.2 kcfs. Daily average powerhouse forebay elevation ranged from 73.3 to 74.3 msl. Daily average project tailwater ranged from 10.8 to 13.7 msl. Secchi disk measurements ranged from 6.0' to 7.0' or greater. Daily average water temperature ranged from 73 to 74°F this week.

b. Summer spill started on 16 June. Daily average spill ranged from 68.5 to 96.9 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. No units were out of service this week.

Unit	OOS Date	RTS Date	Reason
1	0001 on 06 Jul	---	Bank 1/2 outage, annual maint
2	0001 on 06 Jul	---	Bank 1/2 outage, annual maint
16	0700 on 10 Jul	0906 on 10 Jul	STS repair – VBS obstruction

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
7/5	0.4	0.5
7/6	0.4	0.4
7/7	0.4	0.6
7/8	0.5	0.4
7/9	0.3	0.4
7/10	0.4	0.5
7/11	---	---

2. ACTIVITIES:

a. Auxiliary Water System Closures.

(1) FV3-9 was closed for cleaning from 1549 to 1604 on 8 July.

b. STS/VBS inspections.

(1) Table 3. STS inspection dates and run hours.

Unit	Date	Run Hours	Comments
11	7/6	875	OK
12	7/6	440	OK
13	7/6	183	OK
14	7/6	84	OK
15	7/6	117	OK
16	7/6	67	OK
17	7/6	313	OK
18	7/6	878	OK

c. Dewatering and Fish Salvage. No dewaterings occurred this week.

3. RESEARCH:

a. CRITFC – AFF. No sampling occurred due to high river temperatures (>72°F).

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. High-temperature sampling protocols were initiated on 28 June. Gas Bubble Trauma (GBT) evaluations began 21 April. This week’s results: 200 subyearling Chinook examined with no GBT symptoms. No fallbacks were recorded crossing the separator bars. 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 05 – 11 July.

b. Fish passage plan observations.

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

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND – See below				
CASCADES ISLAND – See 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](#).

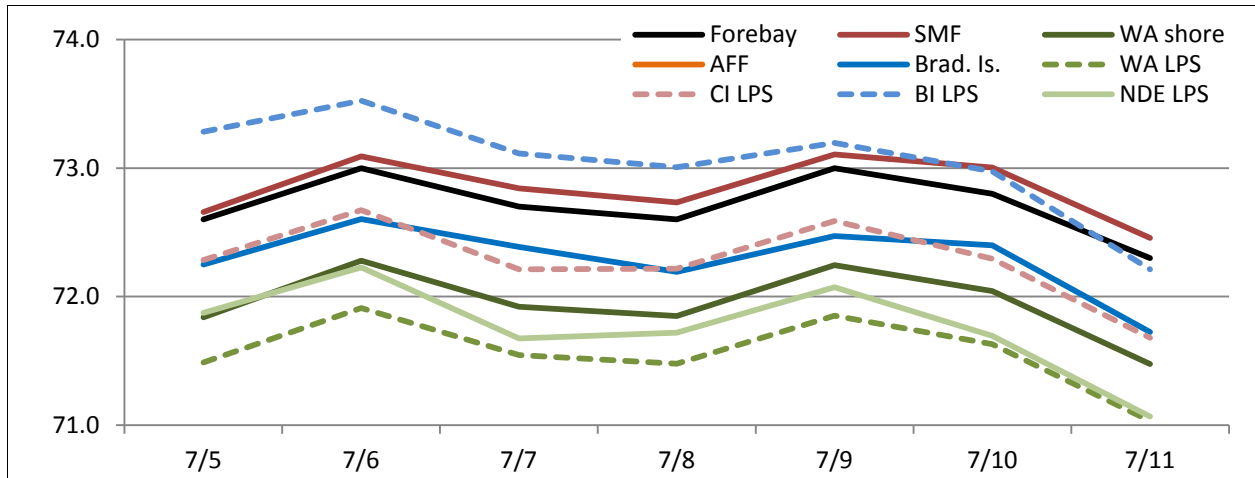
c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November. Forebay temperatures can be found [online](#).

(1) Table 5. 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
7/5	72.6	72.3	71.8	---	72.7	73.3	71.5	72.3	71.9
7/6	73.0	72.6	72.3	---	73.1	73.5	71.9	72.7	72.2
7/7	72.7	72.4	71.9	---	72.8	73.1	71.5	72.2	71.7
7/8	72.6	72.2	71.8	---	72.7	73.0	71.5	72.2	71.7
7/9	73.0	72.5	72.2	---	73.1	73.2	71.9	72.6	72.1
7/10	72.8	72.4	72.0	---	73.0	73.0	71.6	72.3	71.7
7/11	72.3	71.7	71.5	---	72.5	72.2	71.0	71.7	71.1

*The AFF temperature probe did not function correctly this week.

(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
7/5	0	9	0	0	0
7/6	0	3	0	0	0
7/7	0	8	0	0	0
7/8	0	0	0	0	0
7/9	0	1	0	0	0
7/10	0	0	0	0	0
7/11	0	1	0	0	0

f. Adult Fishways.

(1) Calibration occurred on 11 July.

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

(3) The Cascade Island entrance SLED was removed on 08 July. All other SLEDs remain installed.

(4) The Washington shore fishway was placed back to salmon mode on 08 July. The Cascade Island ladder remains in shad mode to provide extra water to the CI entrance until FV5-4 is repaired. See [15BON03](#). The Bradford Is. ladder remains in shad mode.

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 8 April defines the spring and summer spill operations to be used from 10 April through 31 August.

c. A teletype sent on 18 June requests that from 0800 to 2000 daily during 3 – 5 July, operate BON forebay at less than 75.0 msl, hard constraint, to expose the Hood River sand bar for recreational users.

d. A teletype sent on 29 June requests that the BON forebay be maintained at ranges from 74.0 to 76.5 msl, hard constraint, and 75.0 to 76.5, soft constraint, for the dates and times listed within to allow sailboats to be launched and recovered on 6 – 9 August at the Hood River boat launch.

e. A teletype sent on 29 June requests that the BON forebay be maintained at ranges from 74.0 to 76.5 msl, hard constraint, and 75.5 to 76.5, soft constraint, for the dates and times listed within to allow sailboats to be launched and recovered on 14 – 15 August at Cascade Locks and The Dalles.

f. A teletype updated on 8 July requests that BON pool operate within a 1.5' band, hard constraint, from 0600 on 6 July to 1800 on 9 July for treaty fishing.

g. A teletype sent on 8 July requests that BON pool operate within a 1.5' band, hard constraint, from 0600 on 13 July to 1800 on 15 July for treaty fishing.

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