

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

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 24 of 2015, which covers the period from 14 – 20 June 2015.

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 119.8 to 173.1 kcfs. Daily average powerhouse forebay elevation ranged from 73.5 to 74.9 msl. Daily average project tailwater ranged from 11.8 to 15.2 msl. Secchi disk measurements ranged from 5.0' to 7.0' or greater. Daily average water temperature ranged from 66 to 68°F this week.

b. Summer spill started on 16 June. Daily average spill ranged from 75.5 to 99.5 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
1	0958 on 15 Jun	1640 on 15 Jun	BPA RAS testing
1	0802 on 16 Jun	1019 on 16 Jun	BPA RAS testing
2	0958 on 15 Jun	1640 on 15 Jun	BPA RAS testing
2	0802 on 16 Jun	1019 on 16 Jun	BPA RAS testing
3	0001 on 15 Jun	---	RAS testing, Bank 3/4 outage
4	0001 on 15 Jun	---	RAS testing, Bank 3/4 outage
14	0651 on 08 Jun	---	Wicket gate seal replacement

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
6/14	0.1	0.1
6/15	0.5	0.4
6/16	0.7	0.5
6/17	0.3	0.1
6/18	0.2	0.3
6/19	0.2	0.2

6/20	0.1	0.1
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**2. ACTIVITIES:**

- a. Auxiliary Water System Closures.  
 (1) FV1-1 was closed for cleaning from 0747 to 0801 on 15 June.
- b. STS/VBS inspections. No inspection occurred this week.
- c. Dewatering and Fish Salvage. Nothing to report.

**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: 200 subyearling Chinook examined with no GBT symptoms. These fallbacks were recorded crossing the separator bars: 4 steelhead, 1 salmon, 2 unknown salmonids. 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 14 – 20 June.
- b. Fish passage plan observations.

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

Date	Location	FPP Items	Cause	Response
<b>BRADFORD ISLAND – Nothing to report</b>				
<b>CASCADES ISLAND</b>				
6/16	CI fish entrance	Differential < 1.0'	FV5-4 OOS	See 4.1.6, below
<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. 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.

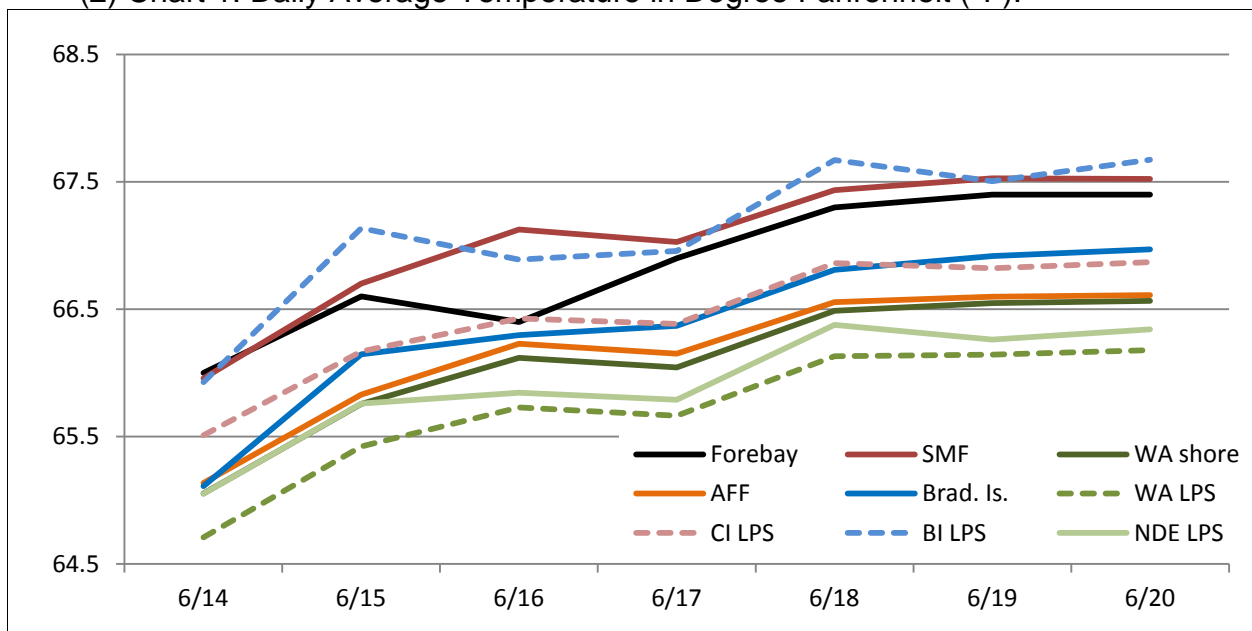
(6) FV5-4 was discovered to have mechanical problems on 21 April. It is currently closed and in manual. Diffusers FG3-9 through 15 are open and in manual to compensate. Repairs have been coordinated for October. See [15BON03](#).

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	Fishways					Lamprey			
	Forebay	Brad. Is.	WA shore	AFF	SMF	BI LPS	WA LPS	CI LPS	NDE LPS
6/14	66.0	65.1	65.1	65.1	66.0	65.9	64.7	65.5	65.1
6/15	66.6	66.1	65.8	65.8	66.7	67.1	65.4	66.2	65.8
6/16	66.4	66.3	66.1	66.2	67.1	66.9	65.7	66.4	65.8
6/17	66.9	66.4	66.0	66.2	67.0	67.0	65.7	66.4	65.8
6/18	67.3	66.8	66.5	66.6	67.4	67.7	66.1	66.9	66.4
6/19	67.4	66.9	66.5	66.6	67.5	67.5	66.1	66.8	66.3
6/20	67.4	67.0	66.6	66.6	67.5	67.7	66.2	66.9	66.3

(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	White Pelicans	Grebes
6/14	1	31	0	0	0
6/15	1	0	0	0	0
6/16	0	14	0	0	0
6/17	2	8	0	0	0
6/18	3	10	0	0	0
6/19	/	/	/	/	/
6/20	/	/	/	/	/

f. Adult Fishways.

(1) Calibration occurred on 20 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.

JERRY A. CARROLL  
Operations Manager  
Bonneville Project