



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PORTLAND DISTRICT
BONNEVILLE LOCK AND DAM PROJECT
PO BOX 150
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CENWP-OD-B

15 December 2014

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 50 of 2014, which covers the period from 07 – 13 December 2014.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 159.3 to 162.8 kcfs. Daily average project tailwater ranged from 14.7 to 15.2 msl. Daily average powerhouse forebay elevation ranged from 72.9 to 74.6msl. Daily average water temperatures ranged from 45° to 46°F. Secchi disk measurements ranged from 6.0' to 7.0'.

b. Spill Bays 01 and 18 provide attraction flow for Cascades Island and B-branch, respectively. Spill bay 01 was closed on 01 December coinciding with the dewatering of Cascades Island for winter maintenance. Daily average spill remained at 0.5 kcfs this week.

(1) Due to a failed hoist brake, spill bay 17 has been operated manually since 11 March. Parts are on order. It's expected to return to service sometime in January.

c. Unit Operation. Powerhouse one became the priority powerhouse on 01 December. Main unit draw downs are measured every Monday and more frequently as needed.

(1) Table 1. Unit Outages.

Unit	OOS Date	RTS Date	Reason
01	1019 on 08 Dec	1336 on 08 Dec	Rake Trash
04	0816 on 09 Dec	1100 on 09 Dec	Rake Trash
10	0450 on 09 Dec	1210 on 10 Dec	Cooling Water Strainer Install
11	0900 on 09 Sep 2012	---	High thrust bearing temps
12	1152 on 08 Dec	1619 on 08 Dec	Rake Trash
F1	0001 on 01 Dec 2014	---	2 year overhaul

d. Unit 11 is estimated to return to service in March 2015.

2. ACTIVITIES:

a. Auxiliary Water System Closures.

- (1) FV3-9 was closed from 0325 to 0445 on 07 Dec to float trash.
- (2) FV3-9 was closed from 0239 to 0615 on 08 Dec to float trash.
- (3) FV3-9 was closed from 0820 to 0832 on 08 Dec for cleaning.
- (4) FV3-9 was closed from 1138 on 08 Dec until 0415 on 09 Dec to float trash.
- (5) FV3-9 was closed from 0855 to 0915 on 10 Dec for cleaning.
- (6) Fv3-9 was closed from 1257 to 1305 on 12 Dec for cleaning.
- (7) FV3-7 was closed from 0810 to 0822 on 08 Dec for cleaning.
- (8) FV1-1 was closed from 0720 to 0730 on 08 Dec for cleaning.

b. STS/VBS inspections. No inspections occurred this week.

c. Dewatering and Fish Salvage.

(1) On 08 December, Project Biologists recovered ~50 adult salmonids, 2 Pacific Lamprey, and 4 White Sturgeon from the upper WA shore ladder. All fish were released into the forebay in good condition.

(2) On 11 December, Project Biologists salvaged ~10 adult salmonids from the UMT. All fish were released into the forebay in good condition.

3. RESEARCH:

a. Normandeau – Fish Counting. Video monitoring continues.

4. FISHWAYS:

a. Project biologists inspected 08 – 09 December.

b. Fish passage plan observations.

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

Date	Location	FPP Items	Cause	Response
12/10		No inspection by bio	No bio available	None
BRADFORD ISLAND				
12/9	A-branch	Differential >1.1'	Unknown	NA
12/8-9	WG-02	Submergence <8.0'	WG-01 OOS/open, raised to improve entrance differential	None
12/9	WG-64	Submergence >8.4'	Unknown	Overload Trips
CASCADES ISLAND – Dewatered				
WASHINGTON SHORE – Dewatered				

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(2) WG-1, one of the entrances on the south side of PH1CC, experienced a gate failure on 17 November. The gate fell and the picking beam fell into the water. A response is being evaluated.

(3) A-branch diffuser FG3-3 is mechanically bound. Repairs may not be possible until A-branch is dewatered past tailwater, during the 2015/16 winter maintenance period.

c. Fishway Temperatures. Temperatures are taken from 01 March through 30 November.

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

e. Adult Fishways.

(1) No calibration occurred this reporting week.

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

(3) All SLEDs are removed.

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.

(2) The DSM remains in service.

(3) The hydro-cannon remains out of service.

(4) The B2CC was opened at 1200 on 13 November. See [teletype e](#), below.

g. Lamprey Fishways.

(1) All LPSs remain out of service.

5. CONSTRUCTION:

a. Navigational lock mooring dolphin. Installation by a contractor is currently

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scheduled for January. During that time the lock will need to be briefly shut down.

6. HAZMAT, SPILLS AND CLEANUP: Nothing to report.

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 29 August provides the spill caps and lack of load conditions to be used from 1 September through 31 December.

b. A teletype sent on 29 October states that effective 0600 on 01 November until further notice, operate BON tailwater as follows to improve Chum spawning conditions. At all hours, operate tailwater from 11.5' – 12.5'. If necessary, tailwater may be operated up to 13.0' at any time, returning to original range when possible. A nighttime tailwater of 16.5' concentrating at 2400 hours is possible, moving to 18.5' if necessary. If outflows demand, operate tailwater at 13.0' – 16.5' during daytime and up to the maximum within ramp rate limits during nighttime.

c. A teletype sent on 24 November provides updated hours for chum spawning operations (above).

d. A teletype sent on 10 November states that in order to keep the latest tailwater range for Chum spawning, effective 01 November until spawning is declared complete or no later than 2400 on 15 January (whichever first), BON Project outflows may be decreased to as low as 58 kcfs as long as at least a minimum stage of 3.0 at the Vancouver gauge is met. This change has been incorporated into the BON Water Control Manual.

e. A teletype sent on 12 November states that effective immediately until further notice, BON is authorized to remove STSs from PH2 turbine units due to high debris loading. The B2CC will be opened prior to operating any unscreened units.

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Bonneville Project