

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 07 of 2018, which covers the period from 11-17 February.

1. OPERATION SUMMARY:

- a. Daily average river flows ranged from 224.4 to 265.5 kcfs. Daily average powerhouse forebay elevation ranged from 72.0' to 73.0' msl. Daily average project tailwater ranged from 19.0' to 20.6' msl. Secchi disk measurements ranged from 4.0' to 6.0'. Daily average water temperature ranged from 41° to 42°F.
- b. Daily average spill ranged from 0.5 to 68.8 kcfs.
- c. Unit Operation. PH2 remains the priority powerhouse. Main unit drawdowns are measured every Monday and more frequently as needed.

(1) Table 1. Unit Outages.

Unit	OOS Date	RTS Date	Reason
01	0743 on 12 Feb	0854 on 12 Feb	Trash Raking
02	0856 on 12 Feb	1039 on 12 Feb	Trash Raking
03	1043 on 12 Feb	1139 on 12 Feb	Trash Raking
04	1142 on 12 Feb	1344 on 12 Feb	Trash Raking
05	1346 on 12 Feb	1629 on 12 Feb	Trash Raking
06	0954 on 13 Feb	1101 on 13 Feb	Trash Raking
07	1513 on 13 Feb	1623 on 13 Feb	Trash Raking
08	1323 on 13 Feb	1512 on 13 Feb	Trash Raking
09	1103 on 13 Feb	1319 on 13 Feb	Trash Raking
10	1040 on 18 Dec	---	5YR Overhaul
11	0736 on 08 Jan	---	FGE Work / Turbine Integrity Inspection
12	0744 on 14 Feb	0822 on 14 Feb	Trash Raking
13	1511 on 14 Feb	1635 on 14 Feb	Trash Raking
14	1107 on 14 Feb	1326 on 14 Feb	Trash Raking
14	1448 on 14 Feb	1508 on 14 Feb	Trash Raking
15	0842 on 14 Feb	1102 on 14 Feb	Trash Raking

- d. Fish Units. Second Powerhouse fish units provide attraction flow for the Washington Shore (WS) fish ladder.

(1) F2 went out of service at 0014 on 11 Dec for two year maintenance overhaul.

e. Table 2. Fish unit drawdowns, in feet.

Date	F1	F2
2/11	0.6'	-
2/12	0.8'	-
2/13	0.8'	-
2/14	0.6'	-
2/15	-	-
2/16	-	-
2/17	0.4'	-

2.

MAINTENANCE ACTIVITIES:

a. Auxiliary Water System Closures.

(1) FV6-9 was closed for cleaning from:

- 0730 to 0745 on 13 Feb
- 0726 to 0730 on 15 Feb.

b. STS/VBS inspections. Nothing to report.

c. Dewatering and Fish Salvages. Nothing to report.

3. RESEARCH:

a. Normandeau – Fish counting. Daytime video counting (0400 to 2000) began on 01 December.

4. FISHWAYS:

a. Project biologists inspected 12 & 14 February.

b. Fish passage plan observations.

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

Date	Location	FPP Items	Cause	Response
2/15	BON	No Bio Fishway Inspection	Lack of Personnel	NA
BRADFORD ISLAND - Nothing to report				
CASCADES ISLAND - Nothing to report				
WASHINGTON SHORE				
2/12,14	SDE/SUE	Differential < 1.0'	Single Fish Unit Ops	NA
2/12,14	NDE/NUE	Differential < 1.0'	Single Fish Unit Ops	NA

- (2) Bonneville had the majority of its avian lines broken due to ice storms during the 2016/17 winter. Avian lines will be replaced after the spillway rock removal is completed and weather allows.
- (3) PH2 diffuser B4 was discovered to have its stem bent on 24 May 2017. This likely occurred while trying to close and the valve is believed to be open. It should be closed at tailwaters above 31.0' and below 11.0' msl.

c. Adult Fishways.

- (1) The AFF was dewatered on 15 November.
- (2) Sensor calibration did not occur this reporting week (applicable waterways are dewatered for winter maintenance).
- (3) SLEDs are installed at Cascades Island and PH2 entrances. PH1 and B-branch entrances were removed on 22 Nov in preparation for the Bradford Island fishway dewatering. SLEDS at B-branch were installed 08 February. SLEDS at PH1 were installed 15 February.

d. Juvenile Fishways.

- (1) The ITS remains in service.
- (2) The hydro-cannon is out of service.
- (3) The B2CC is out of service.
 - (a) The B2CC was opened at 0755 on 11 February in conjunction with forced spill.
- (4) The DSM is out of service.
- (5) STSs have been removed for winter maintenance.

e. Lamprey Fishways. All LPSs are out of service for the season.

f. Avian Monitoring. Bird counts are recorded between 01 April and 31 October.

5. WATER QUALITY MONITORING:

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

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

6. CONSTRUCTION:

- c. Contractors are in process of hard wiring the counter at the Cascade Island LPS exit and lamprey passage system upgrades at Bradford Island.

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

7. TELETYPES CURRENTLY IN EFFECT:

- a. A teletype sent on 31 August sets wintertime (01 September 2017 through 31 March 2018) spill priority lists and spill caps for lack of load conditions.
- b. A teletype sent on 20 December states that effective 1300 on 21 December until further notice, the Bonneville dam minimum tailwater elevation is 11.8' during all hours. The intent is to ensure sufficient tailwater elevation to protect Chum Salmon redds in the Ives/Pierce Island complex during egg incubation.
- c. A teletype sent on 09 February requests from 0900-2100 on 12-18 February daily, avoid spill if at all possible to accomidate rock removal operations.
- d. A teletype sent on 09 February updates the previous teletype from 0500-2100 instead of the previously stated 0900-2100.
- e. A teletype sent on 10 February updates the previous teletype from 12-18 February to 13-18 February.
- f. A teletype sent on 14 February updates the previous rock removal teletype sent on 09 February to request that starting 0500 on 15 February through 2400 on 18 February, avoid spill to the greatest extent possible.

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