

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 08 of 2018, which covers the period from 18-24 February.

1. OPERATION SUMMARY:

- a. Daily average river flows ranged from 228.8 to 253.1 kcfs. Daily average powerhouse forebay elevation ranged from 72.1' to 73.4' msl. Daily average project tailwater ranged from 18.5' to 20.0' msl. Secchi disk measurements ranged from 4.0' to 5.0'. Daily average water temperature ranged from 39° to 40°F.
- b. Daily average spill ranged from 0.3 to 4.4 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
06	1554 on 19 Feb	0727 on 20 Feb	Forced out, Governor Comm Fault
10	1040 on 18 Dec	---	5 YR Overhaul
11	0736 on 08 Jan	---	FGE Work / Turbine Integrity Inspection
13	0855 on 21 Feb	1207 on 21 Feb	PO STS Install
14	1249 on 20 Feb	1538 on 20 Feb	PO STS Install
15	0702 on 23 Feb	1233 on 23 Feb	PO STS Install
16	1002 on 20 Feb	1246 on 20 Feb	PO STS Install
17	1234 on 23 Feb	1609 on 23 Feb	PO STS Install
18	0702 on 20 Feb	0959 on 20 Feb	PO STS Install

- 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. It was brought back to service at 1651 on 22 Feb.

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

Date	F1	F2
2/18	0.4'	-
2/19	0.7'	-
2/20	3.5'	-
2/21	0.4'	-
2/22	0.2'	0.2'
2/23	0.2'	0.2'
2/24	0.1'	0.1'

2.

MAINTENANCE ACTIVITIES:

- a. Auxiliary Water System Closures. Nothing to report.
- 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 20 and 21 February.
- b. Fish passage plan observations.

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

Date	Location	FPP Items	Cause	Response
2/22	BON	No Bio Fishway Inspection	Lack of Personnel	NA
BRADFORD ISLAND - Nothing to report				
CASCADES ISLAND - Nothing to report				
WASHINGTON SHORE - Nothing to report				

- (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 all entrances.

d. Juvenile Fishways.

- (1) The ITS remains in service.
- (2) The hydro-cannon is out of service.
- (3) The B2CC is out of service.
- (4) The DSM returned to service on 20 February.
- (5) STSs were installed this reporting week.

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 finished 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 accomodate 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.
- g. A teletype sent on 18 February cancels the previous teletypes related to spillway rock removal; the work is completed and spillway is returned to service.
- h. A teletype sent on 18 February requests that from 0800 to 1400 on 19 February no spill or B2CC operations for a hydrosurvey to evaluate the rock removal contract.
- i. A teletype sent on 18 February requests special spill operations the next time spill is required after 1400 on 19 February to flush any remaining rocks off of the spill basin post rock removal. After the special spill operations have concluded, normal spill operations may resume.

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