

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for **Week 08** of 2020, which covers the period from **16 - 22 February**.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 163.9 to 205.7 kcfs. Daily average powerhouse forebay elevation ranged from 73.7' to 74.1' msl. Daily average project tailwater ranged from 14.6' to 17.0' msl. Secchi disk measurements ranged from 0.3' to 1.0'. Daily average water temperature ranged from 39° to 40°F.

b. Daily average spill remained 0.6 kcfs.

c. Unit Operation. PH2 remains the priority powerhouse. Main unit drawdowns are measured every Monday and more frequently as needed.

- Table 1. Main Unit Outages.

Unit	OOS	RTS	Reason
10	0001 on 03 Feb	1727 on 19 Feb	P.O., Annual
11	1131 on 20 Feb	1520 on 20 Feb	P.O., STS Install
12	0701 on 20 Feb	1129 on 20 Feb	P.O., STS Install
13	1312 on 19 Feb	1526 on 19 Feb	P.O., STS Install
14	1009 on 19 Feb	1307 on 19 Feb	P.O., STS Install
15	0712 on 19 Feb	0948 on 19 Feb	P.O., STS Install
16	1213 on 18 Feb	1554 on 18 Feb	P.O., STS Install
17	0955 on 18 Feb	1211 on 18 Feb	P.O., STS Install
18	0702 on 18 Feb	0953 on 18 Feb	P.O., STS Install

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

Fish Unit Outages. Fish Units are periodically placed into reserve service (RS) to float trash when debris differentials become excessive and trash raking is not possible.

- Table 2. Fish Unit Outages.

Unit	OOS	RTS	Reason	Duration
F2	0010 on 15 Dec	---	P.O., 2-YR Overhaul	---

- Table 3. Fish Unit Drawdowns, in Feet.

Date	F1	F2
2/16	0.3'	---
2/17	0.4'	---
2/18	1.6'	---
2/19	0.8'	---
2/20	0.3'	---
2/21	0.4'	---
2/22	0.3'	---

2. MAINTENANCE ACTIVITIES:

- a. Auxiliary Water System Closures.
 - FV6-9 closed for cleaning from 1615 to 1630 on 20 February.
- b. STS/VBS Inspections. Nothing to report.
- c. Dewatering and Fish Salvages. Nothing to report.

3. RESEARCH:

- a. Four Peaks Environmental - Fish counting contract: Daytime visual counting (0500 to 2100) began on 01 April and concluded on 30 November. Daytime video (0400-2000 PST) commenced on 01 December. Fish counts can be viewed [here](#).

4. FISHWAYS:

- a. Project biologists inspected 18-20 February.
- b. Fish passage plan observations.

- Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
		Bradford Island – Nothing to report		
		Cascades Island – Nothing to report		
		Washington Shore – Nothing to report		

- On 01 May 2018, FG6-11 (Cascades Island) was found broken partially open. The diffuser shaft had broken away from the motor. Due to the subsidence issues at Cascades Island, repairs cannot occur until crane support is allowed in the vicinity. FG6-11 should be open at tailwaters $\geq 14.0'$.
- On 18 August 2018, FG6-12 (Cascades Island) was found to be mechanically bound in the open position. FG6-12 should only be open with tailwaters ranging from 11.0'-33.0'. Due to the subsidence issues at Cascades Island, repairs cannot occur until crane support is allowed in the vicinity.
- On 27 March 2019, FG6-18 (Cascades Island) was found to be mechanically bound in the closed position. FG6-18 should be open with tailwaters $> 12.0'$. Due to the subsidence issues at Cascades Island, repairs cannot occur until crane support is allowed in the vicinity.

c. Adult Fishways.

- (1) The Bradford Island fishway went out of service and to orifice flow on 28 November for the 2019/20 IWW period.
- (2) The AFF remains out of service.
- (3) Sensor calibration occurred on 19 Feb.
- (4) SLEDs are installed at all Cascades Island and PH2 entrances.

d. Juvenile Fishways.

- (1) The ITS remains in service (auto-chain gates 3B, 6C, & 10B only).
- (2) The hydro-cannon remains out of service.
- (3) The B2CC remains out of service.
- (4) The DSM remains in service.
- (5) STSs were installed 18-20 Feb.

e. Lamprey Fishways.

- (1) All Lamprey Passage Structures remain out of service.
- (2) The Bradford Island Wetted Wall (BIWW) remains out of service.
- (3) The PH2 Lamprey Flume Structure (LFS) remains out of service.
- (4) The AFF Lamprey trap remains out of service.

f. Avian Monitoring. Avian counts are recorded 01 April – 31 October.

5. WATER QUALITY MONITORING:

- a. Fishway Temperatures. Temperatures are taken from 01 March - 30 November.
- b. Zebra Mussel Monitoring. No signs of colonization were observed this reporting week.

6. CONSTRUCTION:

- a. Construction on the new PH2 Oil Water Separator began 14 October.

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

8. TELETYPE CURRENTLY IN EFFECT:

- A teletype sent on 20 December updated the Chum Salmon spawning operations. Effective 24 December at 1200 until further notice, maintain Bonneville tailwater elevation at a minimum of 11.3' at all hours. The official tailwater staff gauge is located 50' upstream of Tanner Creek (Oregon side).

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