

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

**SUBJECT:** Bonneville Project, Fishway and Fish Activities for **Week 03** of 2021, which covers the period from **10-16 January 2021**.

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 170.5 to 247.0 kcfs. Daily average powerhouse forebay elevation ranged from 72.8' to 75.4' msl. Daily average project tailwater ranged from 15.7' to 21.4' msl. Secchi disk measurements ranged from 1.5' to 7.0'. Daily average water temperature remained at 42°F.

b. Daily average spill ranged from 0.5 to 6.1 kcfs.

c. Unit Operation. PH1 will remain the priority powerhouse until the end of February 2021 due to winter maintenance in PH2, Cascades Island fishway, and Washington Shore fishway. Main unit drawdowns are measured every Monday and more frequently as needed.

- Table 1. Main Unit Outages.

Unit	OOS	RTS	Reason
1	0700 on 30 Nov	---	Station Service Work
2	0700 on 30 Nov	---	Station Service Work
18	1250 on 30 Nov	---	4 Yr Overhaul
7	1510 on 12 Jan	1645 on 05 Jan	P.O., Raking Trash

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
F1	0610 on 01 Dec	---	2 yr overhaul/WA Shore Fishway outage	---
F2	0610 on 01 Dec	---	2 yr overhaul/WA Shore Fishway outage	---

- Table 3. Fish Unit Drawdowns, in Feet. Nothing to report.

**2. MAINTENANCE ACTIVITIES:**

a. Auxiliary Water System Closures.

- FV 3-7 and 3-9 were closed for cleaning from 0800 to 0807 on 11 January.
- FV 1-1 was closed for cleaning from 1051 to an unknown time on 14 January.

b. STS/VBS Inspections. STS's were removed on 16 December for annual winter maintenance activities.

c. Dewatering and Fish Salvages.

- On 11 January, fisheries biologists entered Cascades Island Fishway FG6-11 diffuser pit for fish salvage. 6 a dult lamprey, 6 juvenile lamprey, 35 sculpin, 5 juvenile shad, and ~10 other non-game fish were recovered in good condition and released upstream of the nav lock.

- On 13 January, fisheries biologists entered Cascades Island Fishway FG6-1 1 diffuser pit a gain after mechanics were a ble to remove a broken gate where several fish were a ble to remain through other salva ges. Biologists recovered 6 a dult lamprey, 6 juvenile lamprey, 20 sculpin, 1 sucker, and 2 juvenile shad in good condition and released the fish upstream of the nav lock.

**3. RESEARCH:**

- Four Peaks Environmental - Fish counting contract: Daytime video counting (0400 to 2000) began on 01 December. Fish counts can be viewed [here](#).
- USFWS – Lamprey Metamorphosis Study: Juvenile lamprey researchers are onsite, and the work is underway.

**4. FISHWAYS:**

- Project biologists inspected 11 - 14 January.
- Fish passage plan observations.

- Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island				
01/11-14	A-Branch	FG3-4 Partially Open	FG3-4 mechanically bound partially open	W.O.
01/12-14	A-Branch	Weir Staff Gauge >1.1'	NA	NA
01/11	PH1CC	S. Ent Diff <1.0'	Possible Equipment Calibration Issues	W.O.
Cascades Island – Nothing to report.				
Washington Shore – Nothing to report.				

- Spill pattern: spill pattern was not compliant with FPP guidance 13-14 January due to a high rain event causing extra spill for flood control.
- Adult Fishways.
    - The Cascades Island Fishway went out of service and into orifice flow on 01 December.
    - The Washington Shore Fishway went out of service and into orifice flow on 01 December.
    - The AFF was taken out of service for the winter on 25 Nov.
    - Sensor calibration occurred on 13 January.
    - SLEDs are installed at all locations.
  - Juvenile Fishways.
    - The ITS remains in service (auto-chain gates 3B, 6C, & 10B only).
    - The hydro-cannon remains in service.
    - The B2CC was open from 0740 to 1730 on 13 January and again from 0655 to 1100 on 14 January to

pass water and trash. The B2CC remains out of service for the winter season.

- (4) The DSM was placed out of service for annual winter maintenance at 1017 on 17 December.
- (5) STS removal for winter maintenance was completed on 16 December and will remain OOS through the end of February.

e. Lamprey Fishways.

- (1) LPSs 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.
- (5) The CI Lamprey trap remains out of service.

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

**5. WATER QUALITY MONITORING:**

- a. Fishway Temperatures. Temperature logs are no longer being taken this year; data collection will begin again 01 March, 2021.
- b. Zebra Mussel Monitoring. No signs of colonization were observed this reporting week.

**6. CONSTRUCTION:** Nothing to report.

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

**8. TELETYPES CURRENTLY IN EFFECT:**

- A teletype was sent out 30 December stating effective 1 January 2021 at 0001 hours, until further notice, the Bonneville Dam minimum tailwater elevation is 11.8 feet during all hours. The intent of this teletype is to provide sufficient tailwater elevation to protect the chum redds in the Ives/Pierce Island area during the egg incubation period. This teletype replaces the previous CBT message: BONR 1220190926. Please see teletype BONR 1229201520 for more details.

MICHAEL ADAMS, P.E.  
Operations Project Manager  
Bonneville Project