

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

**SUBJECT:** Bonneville Project, Fishway and Fish Activities for **Week 04** of 2021, which covers the period from **17-23 January 2021**.

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 169.5 to 185.0 kcfs. Daily average powerhouse forebay elevation ranged from 73.3' to 74.0' msl. Daily average project tailwater ranged from 14.9' to 16.5' msl. Secchi disk measurements ranged from 6.0' to 7.0'. Daily average water temperature ranged from 42 to 43°F.

b. Daily average spill remained at 0.5 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
14	0011 on 20 Jan	1858 on 20 Jan	P.O., Thrust Collar Inspection

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 1005 to 1130 on 19 January.
- PH1 OWS bypassed to lagoon from 0926 to 1600 on 19 January.
- PH1 OWS was put into manual from 0903 to 0920 on 19 January.

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

c. Dewatering and Fish Salvages.

- On 19 January, fish biologist entered Cascades Island fishway diffuser pits FG6-12,13,14, and 15. 6 adult lamprey, 1 juvenile steelhead, about 70 sculpin, and about 20 other non-gamefish were

recovered in good condition. The fish were released upstream of the nav lock. It can be noted that most of the fish were recovered from the FG6-15 diffuser pit, including the salmonid and all the lamprey.

**3. RESEARCH:**

- a. Four Peaks Environmental - Fish counting contract: Daytime video counting (0400 to 2000) began on 01 December. Fish counts can be viewed [here](#).
- b. USFWS – Lamprey Metamorphosis Study: Juvenile lamprey researchers are onsite, and the work is underway.
- c. Pacific States Marine Fisheries Commission: Work began on Washington shore fishway to replace 4 old PIT tag readers with 4 new and updated PIT tag readers. Work also began to install PIT tag readers into the Cascades Island Fishway at the count station and in the UMT.

**4. FISHWAYS:**

- a. Project biologists inspected 19-21 January.
- b. Fish passage plan observations.

- Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island				
01/19-21	A-Branch	FG3-4 Partially Open	FG3-4 mechanically bound partially open	W.O.
01/19-21	A-Branch	Weir Staff Gauge >1.1'	NA	NA
Cascades Island – Nothing to report.				
Washington Shore – Nothing to report.				

- Spill pattern: spill pattern was not compliant with FPP guidance 19 January. Control was notified and work orders were placed.
- c. Adult Fishways.
  - (1) The Cascades Island Fishway went out of service on 01 December.
  - (2) The Washington Shore Fishway went out of service on 01 December.
  - (3) The AFF was taken out of service for the winter on 25 Nov.
  - (4) Sensor calibration occurred on 19 January.
  - (5) SLEDs are installed at all locations.
- d. Juvenile Fishways.
  - (1) The ITS remains in service (auto-chain gates 3B, 6C, & 10B only).
  - (2) The hydro-cannon remains in service.
  - (3) The B2CC remains out of service for the winter season.

- (4) The DSM was placed out of service for annual winter maintenance on 17 December.
- (5) STS removal for winter maintenance was completed on 16 December and will remain in 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:**

- a. Pacific States Marine Fisheries Commission: Work began on Washington shore fishway to replace 4 old PIT tag readers with 4 new and updated PIT tag readers. Work also began to install PIT tag readers into the Cascades Island Fishway at the count station and in the UMT.

**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.

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