

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 05 of 2021, which covers the period from 24-30 January 2021.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 181.2 to 189.9 kcfs. Daily average powerhouse forebay elevation ranged from 73.0' to 73.5' msl. Daily average project tailwater ranged from 15.5' to 16.3' msl. Secchi disk measurements ranged from 5.0' to 7.0'. Daily average water temperature ranged from 40 to 42°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	1057 on 26 Jan	Station Service Work
2	0700 on 30 Nov	1116 on 26 Jan	Station Service Work
18	1250 on 30 Nov	---	4 Yr Overhaul
7	1011 on 25 Jan	1529 on 25 Jan	P.O., Trash Raking
10	0006 on 26 Jan	1551 on 26 Jan	P.O., Inspect/Replace Slip Ring Brushes

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.

- PH1 OWS bypassed to the lagoon from 1025 to 1116 on 25 January.
- FV 3-7 and 3-9 were closed for cleaning from 1240 to 1320 on 28 January.
- B1 OWS was switched to manual from 1242 to 1252 on 28 January.
- FV 1-1 was closed for cleaning from 1338 to 1345 on 28 January.

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

c. Dewatering and Fish Salvages.

- On 27 January, Fish Biologists entered the Cascades Island fishway entrance bay diffuser pits to salvage fish as the area was dewatered for winter maintenance. 13 adult lamprey, 3 juvenile lamprey, 40 suckers, 25 sculpin, and 3 stickleback were recovered and released downstream at the Hamilton Island Boat Launch. The fish were all in good condition except for a few sluggish 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 continued in the Washington shore fishway to replace 4 old PIT tag readers with 4 new and updated PIT tag readers. Work also continued in the Cascades Island Fishway to install PIT tag readers at the count station and in the UMT.

4. FISHWAYS:

- a. Project biologists inspected 25 - 28 January.
- b. Fish passage plan observations.

• Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island				
01/25-28	A-Branch	FG3-4 Partially Open	FG3-4 mechanically bound partially open	W.O.
01/25-28	A-Branch	Weir Staff Gauge >1.1'	NA	NA
Cascades Island – Nothing to report.				
Washington Shore – Nothing to report.				

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 26 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 was open from 1400 to 1540 on 29 January to float trash. The B2CC otherwise 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 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 continued in the Washington shore fishway to replace 4 old PIT tag readers with 4 new and updated PIT tag readers. Work also continued in the Cascades Island fishway to install PIT tag readers at the count station and in the UMT.

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

8. TELETYPE 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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