

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

**SUBJECT:** Bonneville Project, Fishway and Fish Activities for Week 48 of 2020, which covers the period from 22 – 28 November.

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 133.3.0 to 165.0 kcfs. Daily average powerhouse forebay elevation ranged from 72.8’ to 74.0’ msl. Daily average project tailwater ranged from 12.1’ to 14.2’ msl. Secchi disk measurements remained at 7’. Daily average water temperature remained at 48°F.

b. Daily average spill remained at 1.0 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
3	0003 on 09 Nov	1035 on 25 Nov	
4	0003 on 09 Nov	1035 on 25 Nov	
5	0003 on 09 Nov	1035 on 25 Nov	
6	0003 on 09 Nov	1035 on 25 Nov	
14	0749 on 20 Nov	1503 on 23 Nov	Forced outage, ground in STS motor

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
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• Table 3. Fish Unit Drawdowns, in Feet.

Date	F1	F2
11/22	1.0’	1.8’
11/23	2.4’	1.4’
11/23	0.1’	0.4’
11/24	0.2’	0.5’
11/25	0.2’	0.6’
11/27	0.4’	0.9’
11/28	0.4’	0.8’
11/28	0.2’	0.7’

**2. MAINTENANCE ACTIVITIES:**

a. Auxiliary Water System Closures.

- FV 1-1 was closed for cleaning from 1310 to 1325 on 24 Nov.
- FV 3-9 was closed for cleaning from 1256 to 1345 on 25 Nov.
- FV 1-1 was closed for cleaning from 1345 to 1410 on 25 Nov.

b. STS/VBS Inspections. Nothing to report.

c. Dewatering and Fish Salvages.

- At 0851 on 25 Nov, the AFF was dewatered for winterization and fish salvage activities occurred. 2 adult salmonids, 6 juvenile salmonids, 2 carp, approximately 100 shad, approximately 30 suckers, and 2 smallmouth bass were recovered and released back into the river. Fish were in good condition.

**3. RESEARCH:**

a. Four Peaks Environmental - Fish counting contract: Daytime visual counting (0500 to 2100) began on 01 April. Fish counts can be viewed [here](#).

b. USFWS – Lamprey Metamorphosis Study: Researchers have completed set up of equipment in the SMF and are sampling lamprey.

c. State Agency Pinniped Trapping- sea lion trapping has concluded for the year.

**4. FISHWAYS:**

a. Project biologists inspected 22 – 28 November.

b. Fish passage plan observations.

- Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island				
11/22-28	B-Branch	Ent. Diff. < 1.0'	Unknown	NA
11/22-28	PH1CC	S. Ent. Diff. < 1.0'	Possible Equipment Calibration issues	NA
11/24	A-Branch	Weir Diff > 1.1'	Unknown	NA
Cascades Island – Nothing to report.				
Washington Shore – Nothing to report.				

- FG6-11 (Cascades Island) is broken in the partially open position. The diffuser shaft broke 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  $\geq 14.0'$ .
- FG6-12 (Cascades Island) is mechanically bound in the open position. The diffuser 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.

c. Adult Fishways.

(1) The AFF was taken out of service for the winter on 25 Nov.

(2) Sensor calibration occurred on 24 Nov.

(3) 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.
  - (4) The DSM remains in service.
  - (5) STSs are installed.

- 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 and monitoring 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. TELETYPE CURRENTLY IN EFFECT:** Nothing to report

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