

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for **Week 46** of 2020, which covers the period from **08 – 14 November**.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 131.0 to 150.4 kcfs. Daily average powerhouse forebay elevation ranged from 72.7' to 74.7' msl. Daily average project tailwater ranged from 11.8' to 13.4' msl. Secchi disk measurements ranged from 6.0' to 7.0'. Daily average water temperature ranged from 50 to 53°F.

b. Daily average spill ranged from 1.0 to 1.1 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	---	
4	0003 on 09 Nov	---	
5	0003 on 09 Nov	---	
6	0003 on 09 Nov	---	
7	0149 on 10 Nov	---	Forced outage, exiter failed
11	1511 on 09 Nov	1627	Raking trash
12	0716 on 19 Oct	1110 on 10 Nov	P.O., 5 year overhaul/ Shaft Sleeve

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
11/8	---	---
11/9	1.4'	1.0'
11/9	0.1'	0.3'
11/10	0.3'	0.4'
11/11	0.1'	0.3'
11/12	0.2'	0.3'
11/13	0.1'	0.3'
11/14	0.3'	0.5'

2. MAINTENANCE ACTIVITIES:

a. Auxiliary Water System Closures.

- FV 3-9 was closed for cleaning from 1503 to 1522 on 10 Nov.

- FV 3-7 was closed for cleaning from 1513 to 1522 on 10 Nov.
- FV 1-1 was closed for cleaning from 1528 to 1600 on 10 Nov.

b. STS/VBS Inspections. Nothing to report.

c. Dewatering and Fish Salvages. About 60 sculpin were recovered in good condition from the Unit 12 Tail Logs when they were removed and Unit 12 returned to service on 10 Nov.

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 are preparing equipment in the SMF.

4. FISHWAYS:

a. Project biologists inspected 08 – 14 November.

b. Fish passage plan observations.

- Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island				
11/8-14	B-Branch	Ent. Diff. < 1.0'	Unknown	NA
11/13	PH1CC	N. Ent. Diff. < 1.0'	Unknown	NA
Cascades Island – Nothing to report.				
11/8-12,14	Entrance	Ent. Diff. < 1.0'	Unknown	NA
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 remains in service.
- (2) Sensor calibration did not occur this week.
- (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 were taken out of service on 02 November.
- (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. TELETYPES CURRENTLY IN EFFECT:

- Nothing to report

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