

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 11 of 2020, which covers the period from 08 - 14 March.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 119.5 to 156.7 kcfs. Daily average powerhouse forebay elevation ranged from 74.3' to 75.9' msl. Daily average project tailwater ranged from 11.6' to 14.0' msl. Secchi disk measurements ranged from 5.0' to 7.0'. Daily average water temperature ranged from 42° to 43°F.

b. Daily average spill ranged 1.3 to 1.4 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	0740 on 09 Mar	1157 on 09 Mar	P.O.
5	0740 on 09 Mar	1636 on 09 Mar	P.O.
14	0740 on 24 Feb	---	P.O., 4 year overhaul

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. Nothing to report.

- Table 3. Fish Unit Drawdowns, in Feet.

Date	F1	F2
3/8	0.6'	0.2'
3/9	0.6'	0.3'
3/10	0.7'	0.3'
3/11	0.7'	0.2'
3/12	0.8'	0.3'
3/13	0.6'	0.2'
3/14	0.8'	0.2'

2. MAINTENANCE ACTIVITIES:

a. Auxiliary Water System Closures.

- FV 1-1 was closed for cleaning from 1050 to 1104 on 12 March.

b. STS/VBS Inspections. Nothing to report.

c. Dewatering and Fish Salvages. Project Biologists salvaged 5 juvenile salmonids and 1 sculpin from the Navlock 2 Sil on 09 March. All were released downstream.

3. RESEARCH:

- a. Four Peaks Environmental - Fish counting contract: Daytime video (0400 to 2000) began on 01 March. Fish counts can be viewed [here](#).
- b. PSMFC – Smolt Monitoring: Sample collections at the SMF began at 0700 on 02 March. Debris at the PDS and fish/debris separator was light to light-moderate consisting mostly of sticks. The Outfall hydro-cannons were not operational this week. Kelt observations will be monitored by direct observation from Smolt Monitoring personnel and video recording by Fisheries Field Unit and SMP at least until the Kelt Trigger is reached. Seven steelhead fallbacks were observed this week. Year-to-date total is 14. No fish collections for research purposes were conducted this week. More details can be found on the [FPC web page](#).
- c. USDA - Pinniped hazing: Deck-based hazing began 01 March.
- d. CRITFC - Pinniped hazing: Hazing by boat began 01 March.

4. FISHWAYS:

- a. Project biologists inspected 08-14 March.
- b. Fish passage plan observations.

- Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island – Nothing to report				
3/8-11	B-Branch	FG 3-26 Closed	Unknown	WOR
3/12-14	B-Branch	Ent. Diff > 2.0'	Sensor Calibration	WOR
3/8-11, 13-14	A-Branch	Staff Gauge Diff. > 1.1'	Unknown	NA
3/ 11-14	PH1CC	S. Ent. Diff. < 1.0'	Unknown	NA
Cascades Island – Nothing to report				
Washington Shore – Nothing to report				

- On 01 May 2018, FG6-11 (Cascades Island) was found broken partially open. The diffuser shaft had broken 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 $\geq 14.0'$.
- On 18 August 2018, FG6-12 (Cascades Island) was found to be mechanically bound in the open position. FG6-12 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.
- On 27 March 2019, FG6-18 (Cascades Island) was found to be mechanically bound in the closed position. FG6-18 should be open with tailwaters $> 12.0'$. Due to the subsidence issues at Cascades Island, repairs cannot occur until crane support is allowed in the vicinity.

c. Adult Fishways.

- (1) The Bradford Island fishway remains in service.
- (2) The AFF remains out of service.
- (3) Sensor calibration occurred on 14 Mar.
- (4) 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.

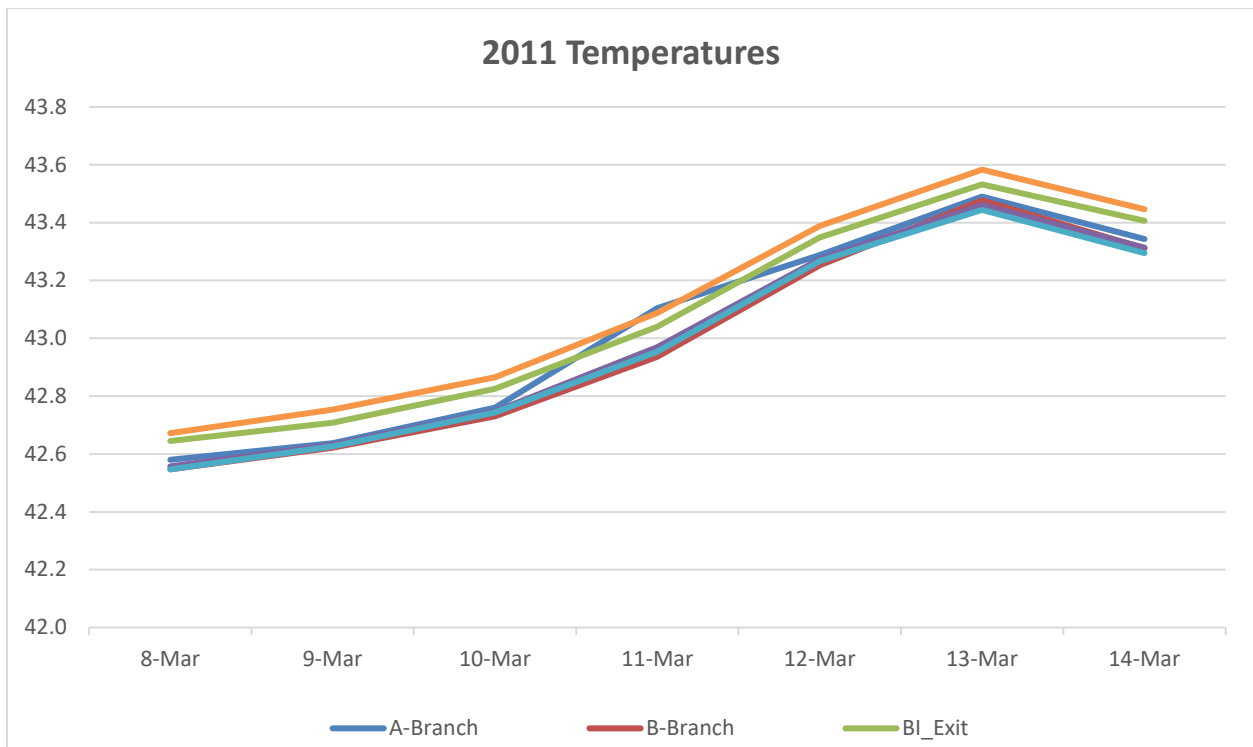
- (1) All Lamprey Passage Structures remain out of service.
- (2) The Bradford Island Wetted Wall (BIWW) remains out of service.
- (3) The PH2 Lamprey Flume Structure (LFS) remains out of service.
- (4) The AFF Lamprey trap remains out of service.

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

5. WATER QUALITY MONITORING:

a. Fishway Temperatures. Temperatures are taken from 01 March - 30 November.

Date	A-Branch	B-Branch	BI_Exit	WA_Entrance	WA_Exit	SMF
8-Mar	42.6	42.5	42.6	42.6	42.5	42.7
9-Mar	42.6	42.6	42.7	42.6	42.6	42.8
10-Mar	42.8	42.7	42.8	42.7	42.7	42.9
11-Mar	43.1	42.9	43.0	43.0	43.0	43.1
12-Mar	43.3	43.3	43.3	43.3	43.3	43.4
13-Mar	43.5	43.5	43.5	43.5	43.4	43.6
14-Mar	43.3	43.3	43.4	43.3	43.3	43.4



b. Zebra Mussel Monitoring. No signs of colonization were observed this reporting week.

6. CONSTRUCTION:

a. Construction on the new PH2 Oil Water Separator began 14 October.

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

8. TELETYPES CURRENTLY IN EFFECT:

- A teletype sent on 20 December updated the Chum Salmon spawning operations. Effective 24 December at 1200 until further notice, maintain Bonneville tailwater elevation at a minimum of 11.3' at all hours. The official tailwater staff gauge is located 50' upstream of Tanner Creek (Oregon side).

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