

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for **Week 42** of 2020, which covers the period from **11 – 17 October**.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 79.0 to 116.2 kcfs. Daily average powerhouse forebay elevation ranged from 72.5' to 75.7' msl. Daily average project tailwater ranged from 8.1' to 11.1' msl. Secchi disk measurements ranged from 3.0' to 7.0'. Daily average water temperature ranged from 61 to 64°F.

b. Daily average spill remained 1.2 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	0700 on 14 Oct	1600 on 14 Oct	P.O., Nova Work
3	0900 on 17 Oct	1000 on 17 Oct	P.O., Support ISQ2 Work
4	0700 on 14 Oct	1600 on 14 Oct	P.O., Nova Work
4	0900 on 17 Oct	1000 on 17 Oct	P.O., Support ISQ2 Work
5	0700 on 14 Oct	1600 on 14 Oct	P.O., Nova Work
5	0900 on 17 Oct	1000 on 17 Oct	P.O., Support ISQ2 Work
6	0700 on 14 Oct	1600 on 14 Oct	P.O., Nova Work
6	0900 on 17 Oct	1000 on 17 Oct	P.O., Support ISQ2 Work
11	0922 on 14 Oct	1129 on 14 Oct	P.O., Trash Raking
12	0834 on 14 Oct	0919 on 14 Oct	P.O., Trash Raking
18	0703 on 14 Oct	0831 on 14 Oct	P.O., Trash Raking

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
10/11	0.4'	0.4'
10/12	0.3'	0.3'
10/13	0.4'	0.4'
10/14	0.5'	0.5'
10/15	0.4'	0.4'
10/16	0.2'	0.2'
10/17	0.1'	0.1'

2. MAINTENANCE ACTIVITIES:

- a. Auxiliary Water System Closures.
 - FV 1-1 was closed for cleaning from 1245 to 1324 on 15 Oct.
 - FV 3-7 was closed for cleaning from 1246 to 1335 on 15 Oct.
 - FV 3-9 was closed for cleaning from 1246 to 1335 on 15 Oct.
- b. STS/VBS Inspections. Nothing to report.
- c. Dewatering and Fish Salvages. Nothing to report.

3. RESEARCH:

- a. Four Peaks Environmental - Fish counting contract: Daytime visual counting (0500 to 2100) began on 01 April. Nighttime video counting (2100-0500) began on 15 May. Fish counts can be viewed [here](#).
- b. PSMFC – Smolt Monitoring: Debris at the PDS and fish/debris separator ranged from light to moderate consisting mostly of aquatic macrophytes, sticks and dead adult American Shad. GBT sampling concluded for the season as of 31 August. Truck releases of summer/fall out-migrants originating from the Snake River dams began 03 August and occur every other day. Six steelhead and 21 salmon fallbacks were observed this week. No fish collections for research purposes were conducted this week. More details can be found on the [FPC web page](#).
- c. USDA –Pinniped hazing: Hazing started 17 August.
- d. CRITFC – Adult Salmonid Sampling: Adult Salmonid sampling in the AFF began on 25 May and typically occurs 5 days per week.

4. FISHWAYS:

- a. Project biologists inspected 11, 13 – 10 October.
- b. Fish passage plan observations.
 - Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island				
10/11-17	B-Branch	FG 3-26,27 open	Mechanically Bound	NA
10/13-17	PH1CC	Ent. Diff. < 1.0'	Unknown	NA
10/11-13	A-Branch	Weir Diff > 1.1'	Unknown	NA
Cascades Island – Nothing to report.				
10/11-17	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 occurred on 15 Oct.
- (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 in 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.

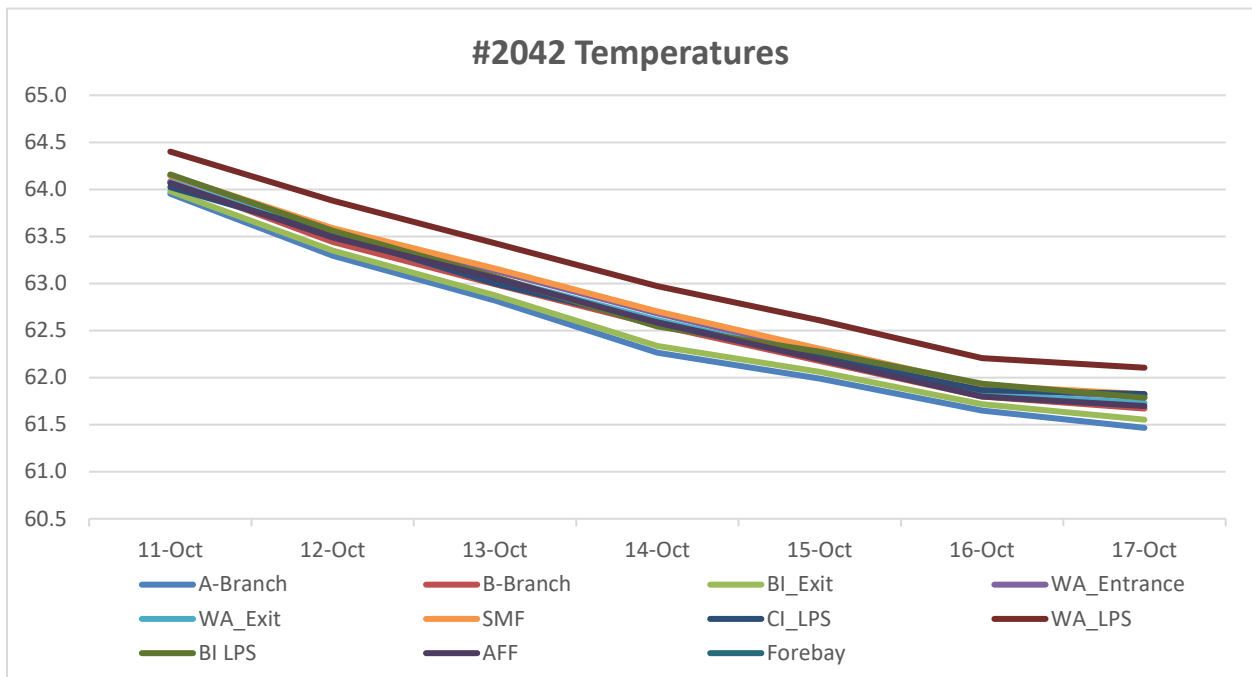
(1) Table 5. Avian Counts.

Date	Gulls	Cormorants	Terns	Wh. Pelicans	Grebes
10/11	6	0	0	0	0
10/12	---	---	---	---	---
10/13	14	21	0	0	0
10/14	10	19	0	0	0
10/15	14	23	0	0	0
10/16	25	11	0	0	0
10/17	23	5	0	0	0

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	CI_LPS	WA_LPS	BI LPS	AFF	Forebay
11-Oct	64.0	64.1	64.0	64.1	64.1	64.1	64.0	64.4	64.2	64.1	---
12-Oct	63.3	63.4	63.3	63.6	63.5	63.6	63.5	63.9	63.6	63.5	---
13-Oct	62.8	63.0	62.9	63.1	63.1	63.2	63.0	63.4	63.1	63.1	---
14-Oct	62.3	62.6	62.3	62.7	62.6	62.7	62.6	63.0	62.5	62.6	---
15-Oct	62.0	62.2	62.1	62.3	62.2	62.3	62.2	62.6	62.3	62.2	---
16-Oct	61.6	61.8	61.7	61.9	61.8	61.9	61.9	62.2	61.9	61.8	---
17-Oct	61.5	61.7	61.6	61.8	61.7	61.8	61.8	62.1	61.8	61.7	---



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:

- A teletype sent on 02 September states that effective immediately through 31 October, the Bonneville dam spillway will be tagged out and unavailable for spill intermittently throughout this period to support a USGS fish tissue sampling crew. See teletype for details
- A teletype sent on 13 October states that effective 0600 on 15 October through 2000 on 16 October, operate Bonneville forebay below a maximum 73.0 feet, soft constraint. From 0600 on 19 October through 20 October, operate Bonneville forebay below a maximum 74.0 feet, soft constraint. The purpose of this operation is to accommodate the replacement of storm drain system for the city of Hood River.

MICHAEL ADAMS, P.E.
Operations Project Manager
Bonneville Project