

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

**SUBJECT:** Bonneville Project, Fishway and Fish Activities for **Week 33** of 2020, which covers the period from **09 – 15 August**.

**1. OPERATION SUMMARY:**

a. Daily average river flows ranged from 135.6 to 169.4 kcfs. Daily average powerhouse forebay elevation ranged from 73.8' to 74.2' msl. Daily average project tailwater ranged from 11.6' to 13.9' msl. Secchi disk measurements remained 7.0'. Daily average water temperature remained 70°F.

b. Daily average spill ranged from 50.0 to 95.0 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	1924 on 09 Aug	---	P.O., Annual
4	1924 on 09 Aug	---	P.O., Annual

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	2245 on 08 Aug	0558 on 09 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 14 mins
F2	2244 on 09 Aug	0643 on 10 Aug	R.S., Nighttime Lamprey Ops - Breaker Status Resolved	7 hrs, 59 mins
F1	2244 on 10 Aug	0600 on 11 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 16 mins
F2	1041 on 11 Aug	1042 on 11 Aug	Testing	1 min
F2	1051 on 11 Aug	1056 on 11 Aug	Testing	5 mins
F2	2244 on 11 Aug	0607 on 12 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 23 mins
F1	2244 on 12 Aug	0559 on 13 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 15 mins
F2	2144 on 13 Aug	0609 on 14 Aug	R.S., Nighttime Lamprey Ops	8 hrs, 25 mins
F2	2244 on 14 Aug	0610 on 15 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 26 mins
F1	2245 on 15 Aug	---	R.S., Nighttime Lamprey Ops	---

- Table 3. Fish Unit Drawdowns, in Feet.

Date	F1	F2
8/9	0.7'	0.9'
8/10	0.9'	0.4'
8/11	0.3'	1.2'
8/12	0.5'	0.4'
8/13	0.3'	0.4'
8/14	0.3'	0.4'
8/15	0.8'	0.4'

**2. MAINTENANCE ACTIVITIES:**

- a. Auxiliary Water System Closures. Nothing to report.
- 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: Higher sampling protocols were initiated on 30 July when water temperatures ascended to 70°F. Debris at the PDS and fish/debris separator was light consisting mostly of aquatic macrophytes, a few sticks and dead adult American Shad. GBT examinations were modified to one collection effort per week beginning on 04 August in conjunction with higher temperature sampling protocols. GBT exams were not attempted this week due to insufficient fish numbers present during collection effort. Truck releases of summer/fall out-migrants originating from the Snake River dams began 03 August and will occur every other day. No 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 - Avian hazing: Deck-based hazing began 01 March.
- d. CRITFC – Adult Salmonid Sampling. Adult Salmonid sampling in the AFF began on 25 May and typically occurs 5 days per week.
- e. ODFW – Steelhead Sampling. Steelhead sampling in the AFF began on 13 July and occurs in conjunction with CRITFC Adult Salmonid Sampling.

**4. FISHWAYS:**

- a. Project biologists inspected 09 – 15 August.
- b. Fish passage plan observations.
  - Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
Bradford Island – Nothing to report.				
8/10-11	A-Branch	Weir Staff Gauge > 1.1'	NA	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.
- FG6-18 (Cascades Island) is mechanically bound in the closed position. The diffuser 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.

- FG6-19 (Cascades Island) is mechanically bound in the closed position. The diffuser should be open with tailwaters > 15.0'. 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 11 Aug.
- (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 in 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 in service.

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

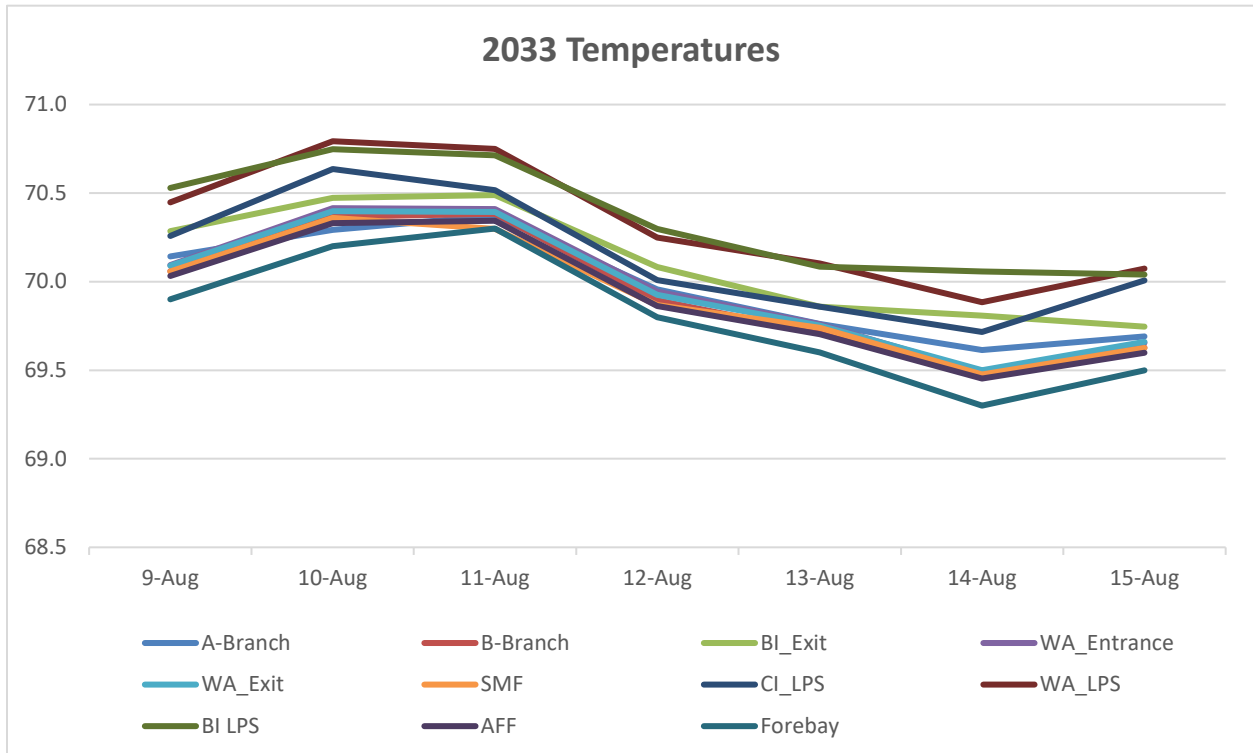
(1) Table 5. Avian Counts.

Date	Gulls	Cormorants	Terns	Wh. Pelicans	Grebes
8/9	0	0	0	0	0
8/10	5	3	0	0	0
8/11	7	47	0	0	0
8/12	---	---	---	---	---
8/13	9	52	0	0	0
8/14	6	42	0	0	0
8/15	11	30	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
9-Aug	70.1	70.1	70.3	70.1	70.1	70.1	70.3	70.4	70.5	70.0	69.9
10-Aug	70.3	70.4	70.5	70.4	70.4	70.4	70.6	70.8	70.7	70.3	70.2
11-Aug	70.4	70.4	70.5	70.4	70.4	70.3	70.5	70.8	70.7	70.3	70.3
12-Aug	70.0	69.9	70.1	69.9	69.9	69.9	70.0	70.2	70.3	69.9	69.8
13-Aug	69.8	69.7	69.9	69.8	69.8	69.7	69.9	70.1	70.1	69.7	69.6
14-Aug	69.6	69.5	69.8	69.5	69.5	69.5	69.7	69.9	70.1	69.5	69.3
15-Aug	69.7	69.6	69.7	69.7	69.7	69.6	70.0	70.1	70.0	69.6	69.5



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:

- A teletype sent on 11 June states that effective 16 June through 31 August, operate in accordance with the FOP to provide Summer spill for fish passage. See teletype for details.
- A teletype sent on 15 August requests that effective from 0800 to 1200 on 19 August, operate forebay from 75.0 to 76.5 feet, soft constraint. The purpose of this request is to provide a high pool for barge loading and shipping operations near Bingen, WA. See teletype for details.

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