

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for **Week 32** of 2020, which covers the period from **02 – 08 August**.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 157.0 to 187.9 kcfs. Daily average powerhouse forebay elevation ranged from 73.8' to 74.5' msl. Daily average project tailwater ranged from 13.6' to 15.7' msl. Secchi disk measurements remained 7.0'. Daily average water temperature ranged from 70° to 72°F.

b. Daily average spill ranged from 94.6 to 95.3 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
1	0700 on 07 Aug	1600 on 07 Aug	P.O., NOVA Support/CQ Board Cutover
2	0700 on 07 Aug	1600 on 07 Aug	P.O., NOVA Support/CQ Board Cutover
7	0045 on 03 Aug	1653 on 06 Aug	P.O., Annual overhaul
8	0700 on 15 Jun	1513 on 06 Aug	P.O., 5 year overhaul
11	1424 on 05 Aug	1601 on 05 Aug	P.O., Trash Raking
12	1354 on 05 Aug	1420 on 05 Aug	P.O., Trash Raking
18	1304 on 05 Aug	1347 on 05 Aug	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.

Unit	OOS	RTS	Reason	Duration
F1	2239 on 01 Aug	0556 on 02 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 17 mins
F2	2242 on 02 Aug	0558 on 03 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 16 mins
F2	2241 on 03 Aug	0559 on 04 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 18 mins
F1	2229 on 04 Aug	0559 on 05 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 30 mins
F2	2243 on 05 Aug	0600 on 06 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 17 mins
F1	2245 on 06 Aug	0610 on 07 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 25 mins
F2	2245 on 07 Aug	0600 on 08 Aug	R.S., Nighttime Lamprey Ops	7 hrs, 15 mins
F1	2245 on 08 Aug	---	R.S., Nighttime Lamprey Ops	---

- Table 3. Fish Unit Drawdowns, in Feet.

Date	F1	F2
8/2	0.1'	1.0'
8/3	0.2'	0.3'
8/4	0.6'	0.3'
8/5	0.2'	1.9'
8/6	0.9'	0.5'
8/7	0.2'	1.0'
8/8	0.2'	0.2'

2. MAINTENANCE ACTIVITIES:

a. Auxiliary Water System Closures.

- FV 3-9 was closed for cleaning from 1524 to 1533 on 06 Aug.

b. STS/VBS Inspections.

UNIT #	PREVIOUS STS HRS	HRS WHEN INSPECTED	HRS RUN	REMARKS
11	52869	53425	556	n/a
12	39888	40445	557	n/a
13	01708	01872	164	n/a
14	11921	12469	548	n/a
15	22305	22783	478	n/a
16	35228	35594	366	n/a
17	30545	00495	495	New hr meter installed
18	00331	00472	141	n/a

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 to light moderate 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. Results of this week’s GBT examinations: 50 subyearling Chinook examined with no GBT symptoms observed. 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 03 – 08 August.

b. Fish passage plan observations.

- Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
8/2	Bonn	No Inspection	Miscommunication	NA
Bradford Island – Nothing to report.				
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 04 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.

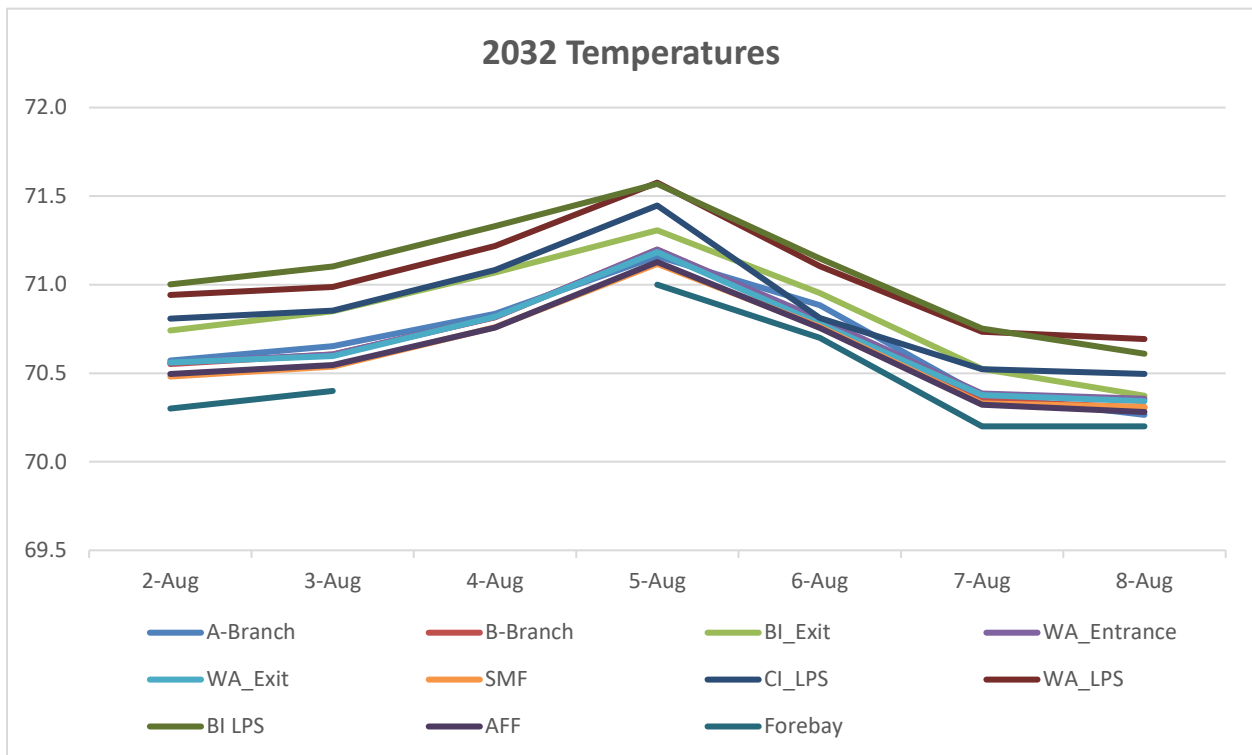
(1) Table 5. Avian Counts.

Date	Gulls	Cormorants	Terns	Wh. Pelicans	Grebes
8/2	---	---	---	---	---
8/3	1	0	0	0	0
8/4	9	28	0	0	0
8/5	3	0	0	0	0
8/6	10	25	0	0	0
8/7	11	19	0	0	0
8/8	10	51	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
2-Aug	70.6	70.6	70.7	70.6	70.6	70.5	70.8	70.9	71.0	70.5	70.3
3-Aug	70.7	70.6	70.9	70.6	70.6	70.5	70.9	71.0	71.1	70.5	70.4
4-Aug	70.8	70.8	71.1	70.8	70.8	70.8	71.1	71.2	71.3	70.8	---
5-Aug	71.2	71.2	71.3	71.2	71.2	71.1	71.4	71.6	71.6	71.1	71.0
6-Aug	70.9	70.8	71.0	70.8	70.8	70.8	70.8	71.1	71.1	70.8	70.7
7-Aug	70.4	70.3	70.5	70.4	70.4	70.3	70.5	70.7	70.8	70.3	70.2
8-Aug	70.3	70.3	70.4	70.4	70.3	70.3	70.5	70.7	70.6	70.3	70.2



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

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Bonneville Project