

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for **Week 19** of 2019, which covers the period from **05-11 May**.

1. OPERATION SUMMARY:

- a. Daily average river flows ranged from 235.0 to 278.4 kcfs. Daily average powerhouse forebay elevation ranged from 74.1' to 74.5' msl. Daily average project tailwater ranged from 18.7' to 20.8' msl. Secchi disk measurements ranged from 3.0' to 4.0'. Daily average water temperature ranged from 53°F - 56°F.
- b. Daily average spill ranged from 117.9 to 120.3 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 Date	RTS Date	Reason
15	0714 on 18 Mar	---	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
5/05	--	--
5/06	0.5'	0.4'
5/07	0.6'	0.4'
5/08	0.8'	0.5'
5/09	0.1'	0.2'
5/10	--	--
5/11	0.1'	0.2'

2. MAINTENANCE ACTIVITIES:

- a. Auxiliary Water System Closures. Nothing to report.
- b. STS/VBS Inspections. A STS/VBS inspection occurred on 01 May (reporting week 1918).

UNIT #	PREVIOUS STS HRS	HRS WHEN INSPECTED	HRS RUN
11	43694	44361	667
12	33610	34190	580
13	03240	03910	670
14	06342	07007	665
15	17292	-----	----
16	29378	30030	652
17	22880	23531	651
18	62000	62670	670

- c. Dewatering and Fish Salvages. Project biologists salvaged ~20 sculpin, 1 Pikeminnow, and 1 catfish from Unit 15 tail logs on 09 May.

RESEARCH:

- a. Four Peaks Environmental - Fish counting: Daytime visual counting (0500 to 2100) began on 06 May. 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 ranged from light to light-moderate consisting mostly of sticks and other woody debris. GBT examinations began on 13 April and are typically performed two days per week through the end of spill. Results of this week’s GBT examinations: 200 yearling Chinook and Steelhead examined: one fish (0.5%) was observed with GBT symptoms. Please follow this [link](#) to the FPC web page for further details. Fallbacks observed this week: 26 Steelhead, 2 Salmon and 3 unknown salmonids. No fish collections for research were conducted this week.
- c. Fisheries Field Unit - Pinniped Monitoring Program: Observations for pinniped abundance and predation began on 02 Jan. The FFU observes five days each week.
- d. USDA - Pinniped hazing: Deck-based hazing began 01 March.
- e. CRITFC - Pinniped hazing: Hazing by boat began 01 March.
- f. CRITFC – Adult Salmonid Sampling. Adult Salmonid sampling in the AFF began on 30 April and typically occurs 5 days per week.
- g. NOAA (Frick) – Bradford Island Lamprey Wetted Wall. Evaluation of the Bradford Island wetted wall commenced for the second year on 17 April.

- h. Whooshh Innovations – Evaluation of a proprietary fish identification system commenced in coordination with CRITFC’s adult salmonid sampling efforts in the AFF on 30 April.

3. FISHWAYS:

- a. Project biologists inspected from 05-08 & 10-11 May.
- b. Fish passage plan observations.

- Table 4. FPP out of criteria items.

Date	Location	FPP Violation	Cause	Response
5/9	BON	No inspection		NA
Bradford Island				
5/5, 5/7, 5/10-11	A-Branch	Differential >1.1'	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.
- 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 AFF remains in service.
- (2) Sensor calibration occurred on 10 May.
- (3) SLEDs are installed at all locations.

d. Juvenile Fishways.

- (1) The ITS remains open (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. All LPSs remain in service.

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

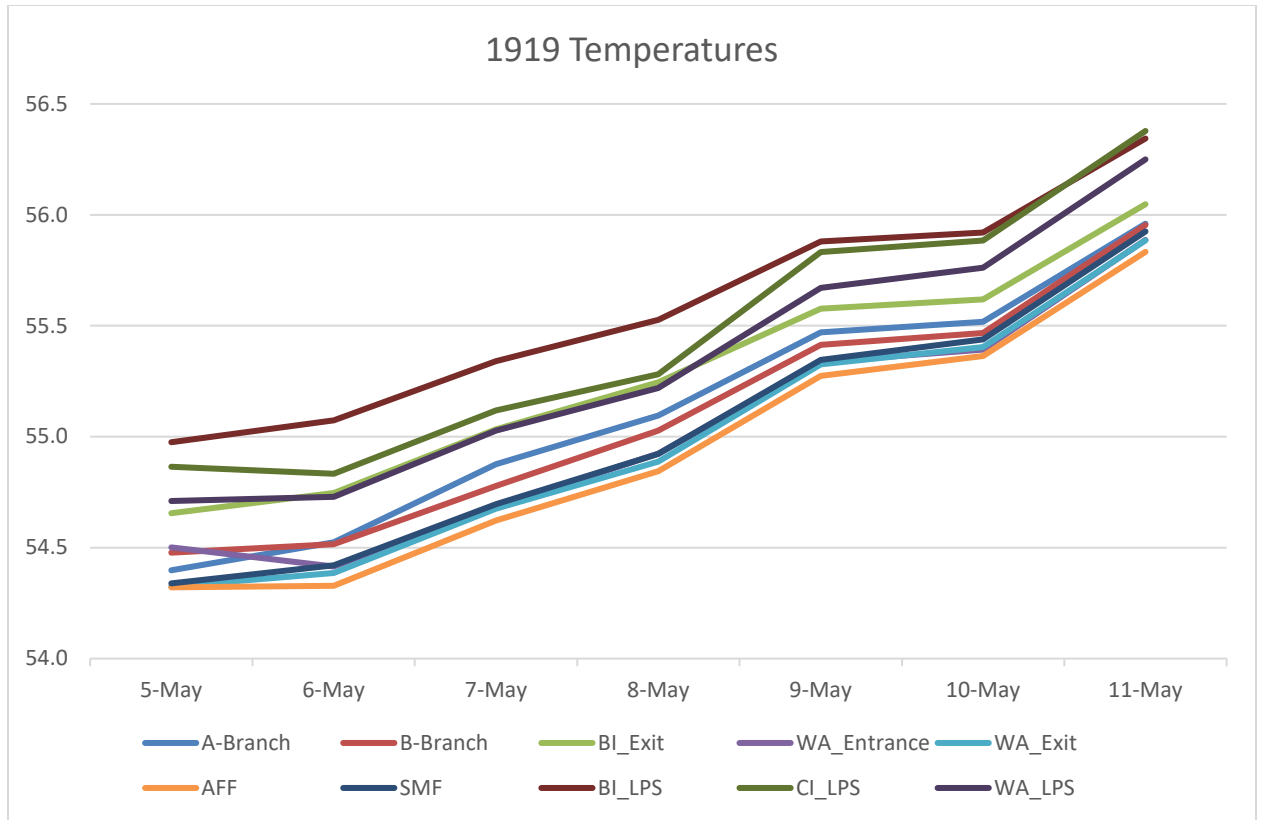
(1) Table 5. Avian Counts.

Date	Gulls	Cormorants	Terns	Wh. Pelicans	Grebes
5/5	0	0	0	0	0
5/6	0	0	0	0	0
5/7	6	0	0	0	0
5/8	9	0	0	0	0
5/9	-	-	-	-	-
5/10	4	0	0	0	0
5/11	0	1	0	0	0

4. WATER QUALITY MONITORING:

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

Date	A-Branch	B-Branch	BI_Exit	WA_Entrance	WA_Exit	AFF	SMF	BI_LPS	CI_LPS	WA_LPS
5-May	54.4	54.5	54.7	54.5	54.3	54.3	54.3	55.0	54.9	54.7
6-May	54.5	54.5	54.7	54.4	54.4	54.3	54.4	55.1	54.8	54.7
7-May	54.9	54.8	55.0	54.7	54.7	54.6	54.7	55.3	55.1	55.0
8-May	55.1	55.0	55.2	54.9	54.9	54.8	54.9	55.5	55.3	55.2
9-May	55.5	55.4	55.6	55.3	55.3	55.3	55.3	55.9	55.8	55.7
10-May	55.5	55.5	55.6	55.4	55.4	55.4	55.4	55.9	55.9	55.8
11-May	56.0	56.0	56.0	55.9	55.9	55.8	55.9	56.3	56.4	56.3



b.

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

5. CONSTRUCTION: Nothing to report

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

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 04 April states effective 10 April through 15 June, operate Bonneville Dam in accordance with the 2019 FOP to provide spring spill for fish passage, spill according to patterns in the 2019 FPP, and open the B2CC at the start of spring spill.

b. A teletype sent on 10 May updates the spill caps and priority list until further notice.

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