

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 13 of 2021, which covers the period from 21 to 27 March 2021.

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 130.9 to 135.3 kcfs. Daily average powerhouse forebay elevation ranged from 72.7' to 73.7' msl. Daily average project tailwater remained at 12.0' msl. Secchi disk measurements ranged 6.0' to 7.0'. Daily average water temperature ranged 44 to 45°F.

b. Daily average spill remained at 1.3 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
13	1003 on 23 Feb	1506 on 25 Mar	P.O., STS Install/F.O. Due to Oil Leak and Spill on Start Up
15	1312 on 01 Mar	---	P.O., FGE Work
16	0701 on 15 Mar	---	P.O., 4 Yr 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
03/21	0.6'	1.2'
03/22	0.6'	1.4'
03/23	0.5'	1.4'
03/24	0.5'	1.4'
03/25	0.1'	0.2'
03/26	0.2'	0.3'
03/27	0.2'	0.3'

2. MAINTENANCE ACTIVITIES:

a. Auxiliary Water System Closures.

- FV 3-9 was closed for cleaning from 1305 to 1323 on 25 March.
- B2CC came back into service 0700 on 26 March after the Kelt Trigger had been reached that morning.

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 video counting (0400 to 2000) began on 01 December. Fish counts can be viewed [here](#).
- b. USFWS – Lamprey Metamorphosis Study: Juvenile lamprey researchers are onsite, and the work is underway.
- c. Pacific States Marine Fisheries Commission - Smolt Monitoring: Sample collections at the SMF began at 0700 on 02 March. Debris at the primary dewatering structure (PDS) and fish/debris separator was light to moderate consisting mostly of sticks. The corner collector opened this week on 26 March. Fallbacks observed this week included 7 steelhead; bringing the year-to-date total to 20. No fish collections for research purposes were conducted this week. More details can be found on the [FPC web page](#).
- d. Northbank: FGE (Fish Guidance Efficiency) work continued on U15.
- e. USDA - Pinniped hazing: Deck-based hazing began 08 March

4. FISHWAYS:

- a. Project biologists inspected 21-27 March.
- b. Fish passage plan observations.
 - Table 5. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
PH1				
03/21-27	PH1 ITS	S. End Gate Inoperable and Chain Gates 1a & 1b Closed	S. End Gate Inoperable, 1a and 1b Closed for Safety Reasons	W.O.
Bradford Island				
03/21-28	A-Branch	FG3-4 Partially Open	FG3-4 mechanically bound partially open	W.O.
03/21-28	A-Branch	Weir Staff Gauge >1.1'	NA	NA
03/21-22,24-25	PH1CC	S. Ent. Diff. < 1.0'	Unknown	NA
Cascades Island				
03/21-24,27	CI/UMT Junction	UMT Staff Gauge diff <0.9	Unknown	Requested that CI Picket Leads Be Cleaned
Washington Shore – Nothing to Report				

- On 23 February, Unit 13 went down for a planned outage to install STS's. Upon startup an oil leak was found causing a forced outage. U13 went back into service 25 March.
- c. Adult Fishways.

- (1) The AFF was taken out of service for the winter on 25 Nov.
- (2) Sensor calibration occurred on 23 March.
- (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 came back into service 0700 on 26 March after the Kelt Trigger was met.
- (4) The DSM remains in service.
- (5) STS's remain in service.

e. Lamprey Fishways.

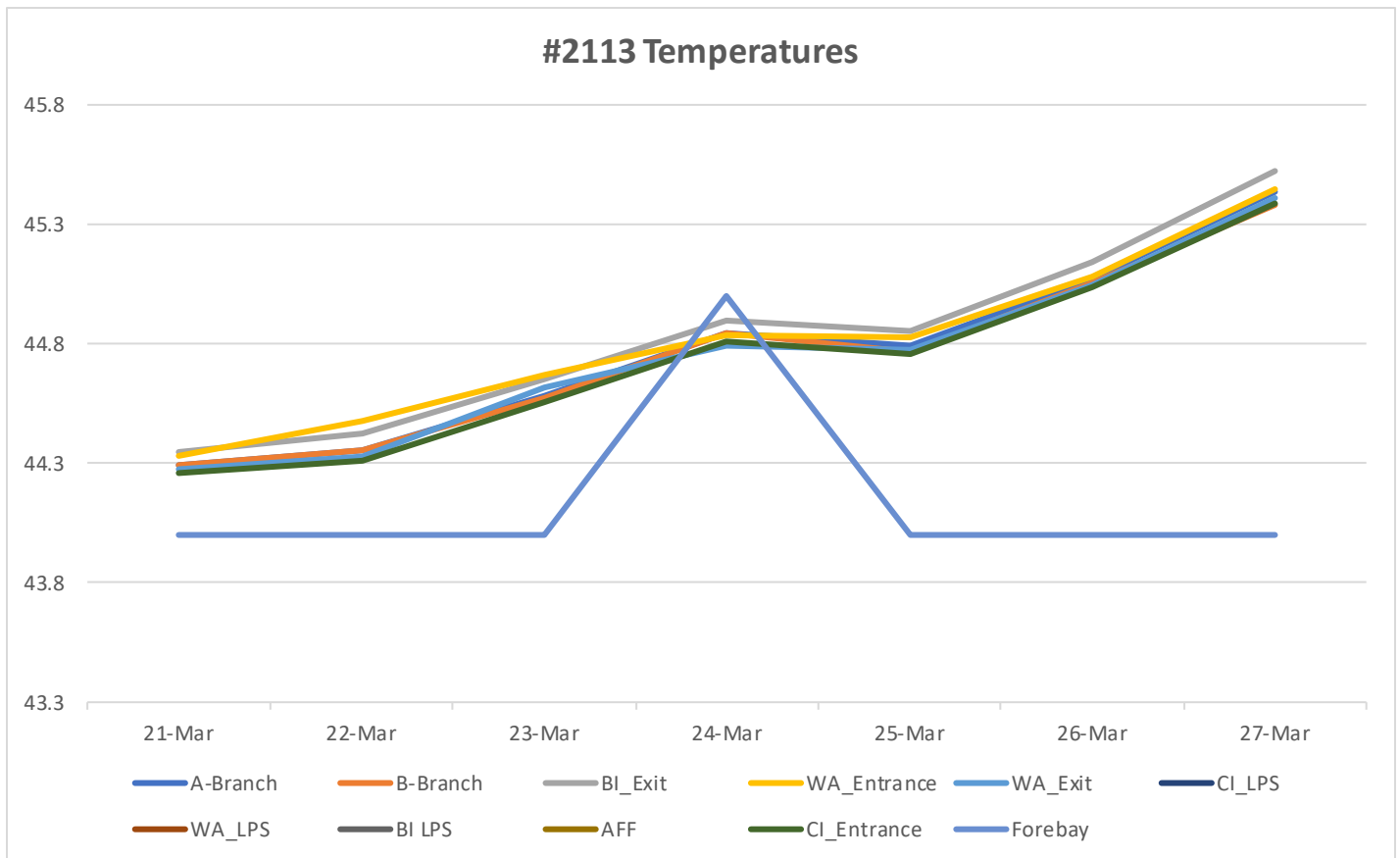
- (1) LPSs remain out of service.
- (2) The Bradford Island Wetted Wall (BIWW) remains out of service.
- (3) The PH2 Lamprey Flume Structure (LFS) remains out of service.
- (4) The AFF lamprey trap remains out of service.
- (5) The CI Lamprey trap remains out of service.

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

5. WATER QUALITY MONITORING:

a. Fishway Temperatures. Temperature logs began on 28 February and will continue through 30 November.

Date	A-Branch	B-Branch	BI_Exit	WA_Entrance	CI_Entrance	WA_Exit	CI_LPS	WA_LPS	BI_LPS	AFF	SMF	Forebay
21-Mar	44.3	44.3	44.3	44.3	44.3	44.3	---	---	---	---		44
22-Mar	44.4	44.4	44.4	44.5	44.3	44.3	---	---	---	---		44
23-Mar	44.6	44.6	44.7	44.7	44.6	44.6	---	---	---	---		44
24-Mar	44.8	44.8	44.9	44.8	44.8	44.8	---	---	---	---		45
25-Mar	44.8	44.8	44.9	44.8	44.8	44.8	---	---	---	---		44
26-Mar	45.1	45.1	45.1	45.1	45.0	45.0	---	---	---	---		44
27-Mar	45.4	45.4	45.5	45.4	45.4	45.4	---	---	---	---		44



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

6. CONSTRUCTION:

a. Northbank: FGE (Fish Guidance Efficiency) work continues on U15.

b. USACE: Work continues to upgrade to the Washington Shore LPS pumps.

7. HAZMAT, SPILLS AND CLEANUP: Nothing to report

8. TELETYPES CURRENTLY IN EFFECT:

- A teletype was sent out 30 December stating effective 1 January 2021 at 0001 hours, until further notice, the Bonneville Dam minimum tailwater elevation is 11.8 feet during all hours. The intent of this teletype is to provide sufficient tailwater elevation to protect the chum redds in the Ives/Pierce Island area during the egg incubation period. This teletype replaces the previous CBT message: BONR 1220190926. Please see teletype BONR 1229201520 for more details.

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