

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for **Week 14** of 2021, which covers the period from **28 March to 03 April 2021.**

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 124.7 to 129.5 kcfs. Daily average powerhouse forebay elevation ranged from 73.0' to 74.7' msl. Daily average project tailwater ranged from 11.9' to 12.0' msl. Secchi disk measurements ranged 6.0' to 7.0'. Daily average water temperature ranged 45 to 46°F.

b. Daily average spill ranged from 1.3 to 1.5 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
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
03/28	0.2'	0.3'
03/29	0.1'	0.1'
03/30	0.1'	0.2'
03/31	0.2'	0.3'
04/01	0.2'	0.2'
04/02	0.2'	0.3'
04/03	0.1'	0.2'

2. MAINTENANCE ACTIVITIES:

a. Auxiliary Water System Closures.

- FV 3-9 was closed for cleaning from 0859 to 0912 on 01 April.
- B2CC came back into service 0700 on 26 March after the Kelt Trigger had been reached that morning.

- b. STS/VBS Inspections March 2021 Inspections: No remarks

UNIT #	PREVIOUS STS HRS	HRS WHEN INSPECTED	HRS RUN
11	56546	57523	977
12	43169	44153	984
13	4117	4402	285
14	14747	15755	1008
15	24383	24382	0
16	36731	37197	466
17	03227	4260	1033
18	3051	3679	628

- a. Dewatering and Fish Salvages. Nothing to report.

2. 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 light-moderate consisting mostly of sticks. Fallbacks observed this week included 5 steelhead. 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.
- f. State Agency Pinniped Trapping: Prep maintenance began on sea lion traps in the Bonneville tailrace prior to trapping.

3. FISHWAYS:

- a. Project biologists inspected 28 March to 03 April.
- b. Fish passage plan observations.

- Table 4. FPP Items Out of Criteria.

Date	Location	FPP Violation	Cause	Response
PH1				
03/28 - 04/03	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				
03/28 – 04/03	A-Branch	FG3-4 Partially Open	FG3-4 mechanically bound partially open	W.O.
03/28 – 04/03	A-Branch	Weir Staff Gauge >1.1’	NA	NA
03/29-31	PH1CC	S. Ent. Diff. < 1.0’	Unknown	NA
Cascades Island				
03/28	CI/UMT Junction	UMT Staff Gauge diff <0.9	Unknown	Requested that CI Picket Leads Be Cleaned
Washington Shore – Nothing to Report				
03/28	PH2 SUE	SUE Ent/TW Diff < 1.0	Unknown	NA

c. Adult Fishways.

- (1) The AFF was taken out of service for the winter on 25 Nov.
- (2) Sensor calibration occurred on 30 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 remains in service.
- (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.

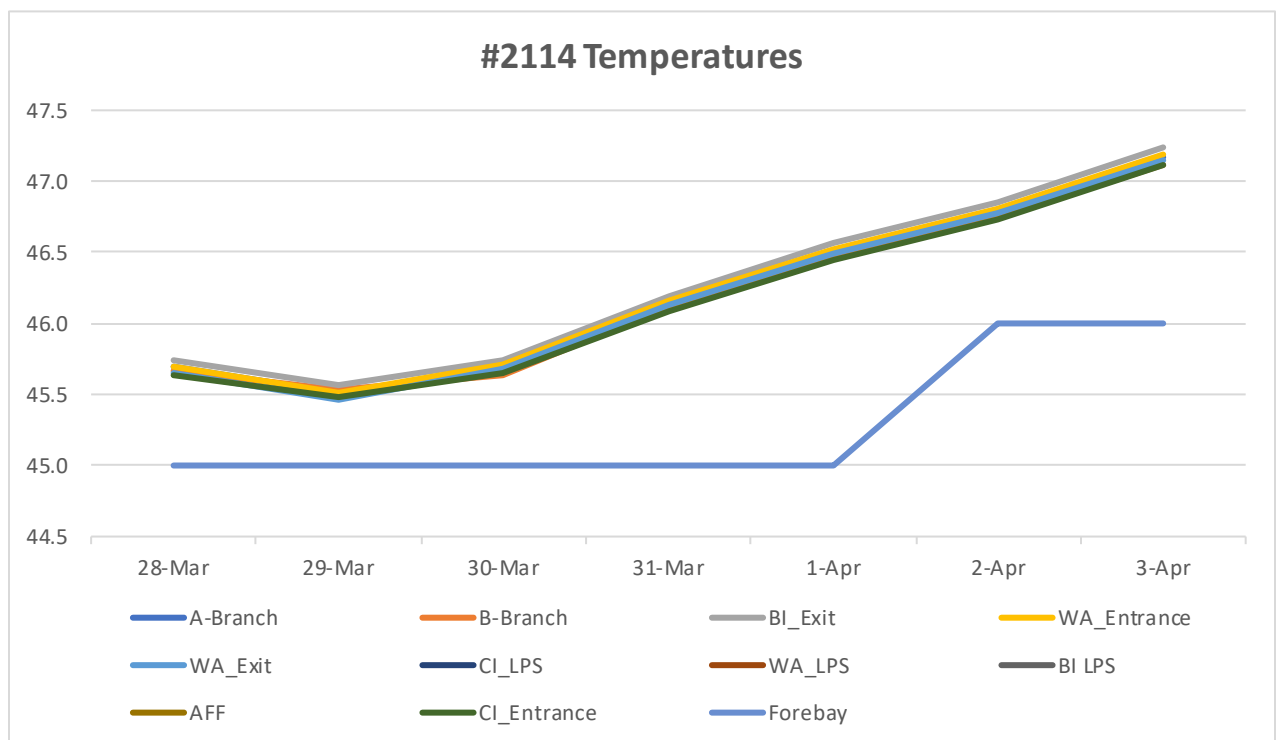
(1) Table 5. Avian Counts.

Date	Gulls	Cormorants	Terns	Wh. Pelicans	Grebes
03/28	---	---	--	---	--
03/29	---	---	---	---	---
03/30	---	---	---	---	---
03/31	---	---	---	---	---
04/01	4	2	0	0	0
04/02	0	0	0	0	0
04/03	1	3	0	0	0

4. 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
28-Mar	45.7	45.7	45.7	45.7	45.6	45.7	---	---	---	---		45
29-Mar	45.5	45.5	45.6	45.5	45.5	45.5	---	---	---	---		45
30-Mar	45.7	45.6	45.7	45.7	45.7	45.7	---	---	---	---		45
31-Mar	46.1	46.1	46.2	46.2	46.1	46.1	---	---	---	---		45
1-Apr	46.5	46.5	46.6	46.5	46.5	46.5	---	---	---	---		45
2-Apr	46.8	46.8	46.9	46.8	46.7	46.8	---	---	---	---		46
3-Apr	47.2	47.1	47.2	47.2	47.1	47.1	---	---	---	---		46



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

5. 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. TELETYPE 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.
- A teletype was sent out for the Snake and Columbia River Projects and BPA on 29 March extending the winter lack of load spill priority list (see revision in paragraph 1 of BONR 0329211439). This teletype provides the order that projects spill for lack of load and was to be used from 0000 on 01 April to 2359 on 02 April. See teletype for more information.
- A teletype was sent out on 30 March regarding spill caps and lack of load spill priority list for Columbia and Snake River Projects and BPA. Starting 0001 on 03 April and until further notice, the table found in teletype BONR 0330211420 provides spill in level 1 for fish passage projects in accordance with the 2021 Fish Observations Plan. It also provides lack of load spill levels or percent of total river flow and the order in which to spill before proceeding to the next level in the table. Please see referenced table and further details in teletype BONR 0330211420.
- On 01 April, a teletype was sent out addressing the closure of the Powerhouse 2 Corner Collector from 0600 to 1700 hours on Monday, April 5 and Tuesday, April 6. This closure is required for Bonneville Project Staff to safely re-install a vian lines at the B2CC and Main Dam. If project staff finish early either day, the B2CC will be available to reopen after notifying BPA hydroscheduling.
- On 01 April, a teletype was sent out for Bonneville and BPA requesting on 02 April between 0600 and 0800 hours Bonneville forebay to operate above 74.5 feet, with a soft constraint. This operation was requested to support a boat retrieval near Hood River of a 30 ft pleasure craft.

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