

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

**SUBJECT:** Bonneville Project, Fishway and Fish Activities for **Week 15** of 2021, which covers the period from **04 to 10 April 2021**.

**1. OPERATION SUMMARY:**

- a. Daily average river flows ranged from 130.2 to 149.1 kcfs. Daily average powerhouse forebay elevation ranged from 74.0' to 75.4' msl. Daily average project tailwater ranged from 12.0' to 13.1' msl. Secchi disk measurements ranged 6.0' to 7.0'. Daily average water temperature ranged 47 to 48°F.
- b. Daily average spill ranged from 0.8 to 94.7 kcfs. Spring spill season began on 10 April and will continue through 15 June in accordance with FOP guidelines.
- 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

- a. 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
04/04	0.1'	0.2'
04/05	0.2'	0.3'
04/06	0.0'	0.2'
04/07	0.3'	0.6'
04/08	0.3'	0.6'
04/09	0.2'	0.6'
04/10	0.3'	0.5'

**2. MAINTENANCE ACTIVITIES:**a. Auxiliary Water System Closures.

- B2CC was closed from 0815 to 1548 on 05 April for safety reason during the avian line re-install at the B2CC.
- PH1 OWS was switched to the lagoon from 0745 to 1140 on 06 April to replace sample line piping in OWS.
- Main Dam Spill Bays 1 and 18 were closed from 0800 to 1400 on 06 April for safety reasons during the avian line re-install in the Main Dam tailrace.
- FV 1-1 was switched to manual for cleaning from 1301 to 1311 on 08 April.

- b. STS/VBS Inspections. Nothing to report.
- a. Dewatering and Fish Salvages. Nothing to report.

**2. RESEARCH:**

- a. Four Peaks Environmental - Fish counting contract: Daytime visual counting (0500 to 2100) began on 01 April. 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 8 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 on U15 finished by 07 April and Northbank is now demobilized.
- e. USDA - Pinniped hazing: Deck-based hazing began 08 March.
- f. State Agency Pinniped Trapping: Sea lion trapping began on 05 April.

**3. FISHWAYS:**

- a. Project biologists inspected 04 to 10 April.
- b. Fish passage plan observations.

**Table 4. FPP Items Out of Criteria.**

Date	Location	FPP Violation	Cause	Response
PH1				
04/04-10	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				
04/04-10	A-Branch	FG3-4 Partially Open	FG3-4 mechanically bound partially open	W.O.
04/04-05,07-10	A-Branch	Weir Staff Gauge >1.1'	NA	NA
04/04-06,09-10	PH1CC	S. Ent. Diff. < 1.0'	Unknown	NA
Cascades Island – Nothing to Report				
Washington Shore				
04/05	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 07 April.

(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 remained in service except for the closure from 0815 to 1548 on 05 April for safety reason during the avian line re-install at the B2CC.

(4) The DSM remains in service.

(5) STS's remain in service.

e. Lamprey Fishways.

(1) Bradford Island and Cascades Island LPS's were put into service on 06 April. WA Shore LPS remains out of service, currently.

(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.

**Table 5.** *Avian Counts.*

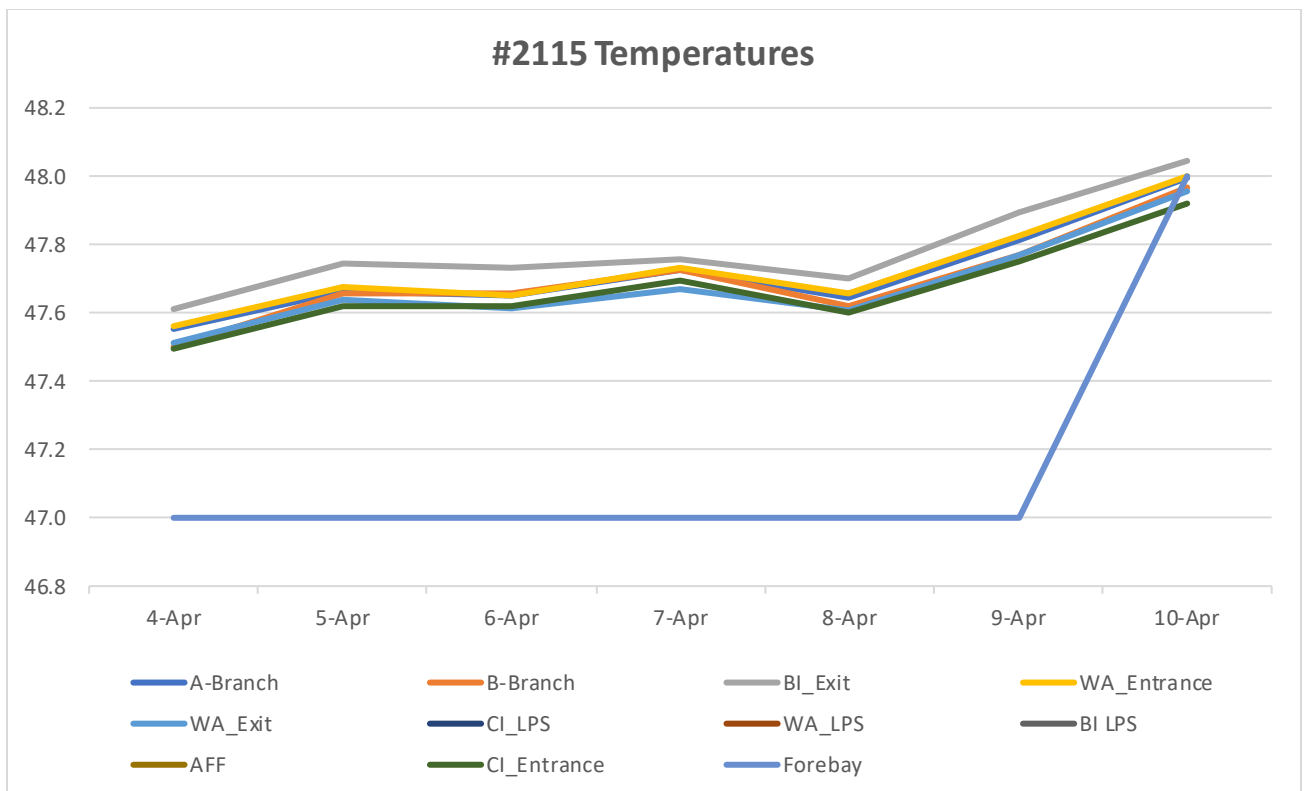
<b>Date</b>	<b>Gulls</b>	<b>Cormorants</b>	<b>Terns</b>	<b>Wh. Pelicans</b>	<b>Grebes</b>
04/04	2	4	0	0	0
04/05	3	9	0	0	0
04/06	1	0	0	0	0
04/07	2	7	0	0	0
04/08	2	2	0	0	0
04/09	2	3	0	0	0
04/10	11	2	0	0	0

**4. WATER QUALITY MONITORING:**

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

**Table 6. Bonneville Fishway Temperatures 04–10 April.**

Date	A-Branch	B-Branch	BI_Exit	WA_Entrance	CI_Entrance	WA_Exit	CI_LPS	WA_LPS	BI LPS	AFF	SMF	Forebay
4-Apr	47.6	47.5	47.6	47.6	47.5	47.5	---	---	---	---	---	47
5-Apr	47.7	47.7	47.7	47.7	47.6	47.6	---	---	---	---	---	47
6-Apr	47.7	47.7	47.7	47.6	47.6	47.6	48.1	---	48.2	---	---	47
7-Apr	47.7	47.7	47.8	47.7	47.7	47.7	47.8	---	48.0	---	---	47
8-Apr	47.6	47.6	47.7	47.7	47.6	47.6	47.8	---	47.9	---	---	47
9-Apr	47.8	47.8	47.9	47.8	47.7	47.8	48.0	---	48.1	---	---	47
10-Apr	48.0	48.0	48.0	48.0	47.9	48.0	48.0	---	48.2	---	---	48



**Figure 1. Average fishway temperatures from 04 to 10 April.**

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

**5. CONSTRUCTION:**

a. Northbank: FGE (Fish Guidance Efficiency) work on U15 finished by 07 April and Northbank is now demobilized.

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.
- A teletype sent out on 07 April states effective 10 April at 0001 hours to end reference BONR 1229201520 tailwater operation for chum incubation 3, and Bonneville Dam may resume normal tailwater operations.
- A teletype sent on 05 April states that effective 10 April through 15 June, Bonneville Dam operate in accordance with FOP to Spring Spill for Juvenile Fish Passage. See teletype BONR 0405210912 for details.
- A teletype was sent out on 07 April for all Columbia and Snake River Projects and BPA giving revisions to the Lack of Load Spill Priority List. Please see teletype BONR 0407211225 for details.
- On 01 April, a teletype was sent out addressing the short duration 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.

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