

MEMORANDUM FOR CENWP-OP, ATTN: Operations Biologist

SUBJECT: Bonneville Lock and Dam, Fishway and Fish Activities for Week 27 of 2013, which covers the period from 30 June through 06 July 2013.

1 OPERATION SUMMARY

- 1.1 Daily average river flows ranged from 268.2 to 280.5 kcfs. Daily average project tailwater ranged from 20.7' to 21.6' msl. Daily average powerhouse forebay elevation ranged from 73.1' to 75.7' msl. Daily average water temperatures ranged from 64°F to 66°F. Secchi disk measurements ranged from 5.0' to 6.5'.
- 1.2 Spill Bays 1 and 18 provide attraction flow for Cascades Island and B-branch, respectively. Daily average spill ranged from 90.7 to 104.4 kcfs. Summer spill operations congruent with FPP section 2.2.3 took effect on 16 June.
- 1.3 Unit Operation. Powerhouse Two is the priority powerhouse.
 - 1.3.1 Unit 11 went out of service at 0900 on 09 September 2012 for high thrust bearing temperatures.
 - 1.3.2 Unit 12 was out of service from 1136 to 1611 on 30 June due to the tripping of RC1 and RC2 lines.
 - 1.3.3 Unit 13 was out of service from 1136 to 1618 on 30 June due to the tripping of RC1 and RC2 lines.
 - 1.3.4 Unit 14 was out of service from 1136 to 1623 on 30 June due to the tripping of RC1 and RC2 lines, from 1705 on 30 June until 1113 on 1 July due to a STS failure, and from 1626 to 1736 on 01 July due to failed headcover pumps.
 - 1.3.5 Unit 15 was out of service from 1136 to 1633 on 30 June due to the tripping of RC1 and RC2 lines.
 - 1.3.6 Unit 16 went out of service at 0748 on 29 April for digital governor install #1 / air gap install.
 - 1.3.7 Unit 17 was out of service from 1136 to 1626 on 30 June due to the tripping of RC1 and RC2 lines.
 - 1.3.8 Unit 18 was out of service from 1136 to 1643 on 30 June due to the tripping of RC1 and RC2 lines.
- 1.4 Fish Units. Second Powerhouse fish units provide attraction flow for the Washington Shore (WS) fish ladder. The units may be placed on standby, as necessary, during nighttime hours to float debris.
 - 1.4.1 F1 was out of service from 1136 to 1731 on 30 June due to the tripping of RC1 and RC2 lines.
 - 1.4.2 F2 was out of service from 1136 to 1619 on 30 June due to the tripping of RC1 and RC2 lines.
- 1.5 Gatewell drawdowns are measured on Tuesdays and more frequently as needed.

2 ACTIVITIES

- 2.1 Auxiliary Water System Closures. The following AWS closures occurred this reporting week:
 - 2.1.1 FV3-7 was closed for cleaning from 0657 until 0709 on 03 July.
 - 2.1.2 FV3-9 was closed for cleaning from 0657 until 0709 on 03 July.
- 2.2 STS/VBS inspections.
 - 2.2.1 Table 3. STS and VBS inspection.

Unit	Date	Run Hours	Comments
11	N/A	OOS	Unit 11 remains out of service.
12-18	N/A	N/A	Inspection scheduled for 08 July.

- 2.3 Dewatering and Fish Salvage. The following fish recoveries occurred this reporting week.

- 2.3.1 On 02 July, Project Biologists recovered 3 White Sturgeon, 1 Pacific Lamprey, 1 sculpin, and 3 Peamouth from the Unit 16 draft tube. All fishes were returned to the forebay in good condition.

3 RESEARCH

- 3.1 CRITFC. Annual Chinook, Coho, sockeye, and steelhead sampling in the AFF continues.
- 3.2 CTUIR – Lamprey. Collection of 238 lamprey for translocation concluded on 15 June.
- 3.3 NOAA – Lamprey. LPS count network installed. HD-PIT tagging is currently being conducted by University of Idaho for NOAA until NOAA staff can be on site.
- 3.4 Normandeau – Fish Counting. Visual counting continues. Nighttime video counts commenced on 15 June.
- 3.5 PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring continues. Separation by Code is currently active for separate NOAA studies by D. Marsh. This week 200 subyearling Chinook were examined with one incidence (0.5%) of gas bubble trauma observed. Fallbacks recorded crossing the separator bars this week: 6 salmon. Fallback observations are available at the FPC website:
<http://www.fpc.org/adultsalmon/bonkeltcounts.htm>.
- 3.6 University of Idaho – AFF. USACE funded adult salmonid sampling continues.
- 3.7 University of Idaho – Lamprey. HD-PIT and JSATs tagging continues from the AFF traps.
- 3.8 USDA - Avian Hazing. Land-based hazing continues.
- 3.8 USFWS – National Fish Health Survey. Adult shad collection will begin in June. Juvenile shad collection is scheduled to begin in September.
- 3.9 Yakama Nation – Lamprey. Collection of 238 lamprey for translocation concluded on 2 July.
- 3.10 Yakama Nation – Shad. Collection of adult shad from the AFF for the white sturgeon broodstock program is scheduled to begin in June.
- 3.11 Nez Perce – Lamprey. Collection of 238 lamprey for translocation studies began on 21 June.

4 FISHWAYS

- 4.1 Project biologists inspected 30 June through 06 July.
- 4.2 Fish Passage Plan Observations.

4.2.1 Table 4. FPP Out of Criteria items.

Date	Location	FPP Items	Cause	Response
BRADFORD ISLAND (BI)				
7/5-6	WG-64	Not operating in 8.0-8.4' band	Malfunctioning A-branch diffusers	Monitoring and adjustment as necessary
7/3-6	A-branch	Water level > 1.1'	N/A	None
CASCADES ISLAND (CI) – Nothing to report				
WASHINGTON SHORE (WS)				
7/1	PH2CC	All entrance diff < 1.0'	FU1 being serviced	None
7/2	Diffuser B7	Incorrect position for TW	Mechanically bound	TR in place

- 4.2.2 A-branch diffuser FG3-3 is partially open and FG3-6 is closed. Repairs will occur when the Bradford Island ladder is dewatered. The next possible time period will be 2013/14 winter maintenance.
- 4.2.3 PH1CC diffuser FG2-19 is partially open. Repairs will occur when the PH1CC is dewatered. The next possible time period will be 2013/14 winter maintenance.
- 4.3 Fishway Temperatures. Temperatures are normally taken from 01 March through 30 November. New temperature probes have been ordered and will be installed upon delivery.
- 4.4 Zebra Mussel Monitoring. No signs of colonization were observed this reporting week.
- 4.5 Adult Fishways.
- 4.5.1 Calibration was checked on 06 July.
- 4.5.2 10 of 12 floating orifice gates (FOGs) are installed. Two gates remain out for maintenance. Sea lion barriers are in place on all installed FOGs.
- 4.5.3 All SLEDs were removed from fishway entrances by 13 June.

4.5.4 All ladders remain in service.

4.5.4.1 All ladders were switched to Shad Mode on 22 May, congruous with FPP 2.5.1.2.a. WA Shore and Cascades Island ladders returned to Salmon Mode on 26 June. The Bradford Island ladders returned to Salmon Mode on 03 July.

4.5.4.2 On 01 June nighttime lamprey operations commenced at PH2 fishway entrances.

4.6 Juvenile Fishways.

4.6.1 Manual chaingates 1A and 1B remain open and are both set to 70' msl. Automated chaingates 3B, 6C and 10B are open and functioning in auto.

4.6.2 DSM2 remains in service.

4.6.3 The hydrocannon remains in service.

4.6.4 The B2CC remains open.

4.6.5 All avian arrays are installed.

4.7 Lamprey Fishways.

4.7.1 The Bradford Island LPS remains in service.

4.7.2 The WA shore AWS LPS remains in service.

4.7.3 The new WA shore LPS/LFS was watered up on 4 June. The LFS system was shut down on 20 June due to lamprey mortalities and remains dewatered. The LPS system was shut down on 24 June; no fish were found in the system prior to dewatering.

4.7.4 Cascades Island LPS was returned to service on 01 July after a brief dewatering due to electrical tripping of the supply pumps.

5 CONSTRUCTION

5.1 WA Shore LPS/LFS Installation. Flume construction is complete. Pumps were installed on 30 May and punch list items are being addressed.

6 HAZMAT, SPILLS AND CLEANUP Nothing to report.

7 TELETYPES CURRENTLY IN EFFECT

7.1 A teletype sent on 09 April provides the 2013 spill schedule for fish passage, effective from 0001 on April 10 through 2400 on August 31. Operations for the B2CC and turbine units, as well as lamprey operations, are also provided for this period.

7.2 A teletype sent on 19 June requests that from 2000 to 2300 on 4 July, operate BON pool from 75.8' – 76.5' as a hard constraint and 76.0' – 76.5' as a soft constraint for Hood River fireworks staging and safety. In addition, for Hood River recreation use operate BON pool as following: less than 75.0' as a soft constraint from 1200 – 1800 on 5 July; less than 75.0' as a hard constraint and less than 74.5' as a soft constraint from 0600 – 1800 on 6 – 7 July.

7.3 A teletype sent on 04 July updates the spill priority list and spill caps for fish passage season starting 15 May until further notice based on observed TDG data.

7.4 A teletype sent on 03 July requests that from 0600 on 08 July until 1800 on 11 July, operate Bonneville pool within a 1.5' band as a hard constraint for treaty fishing.

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