



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PORTLAND DISTRICT
BONNEVILLE LOCK AND DAM PROJECT
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CENWP-OD-B

06 October 2013

MEMORANDUM FOR Biologist, Operations Division (CENWP-OD)

SUBJECT: Bonneville Project, Fishway and Fish Activities for Week 40 of 2013, which covers the period from 29 September through 05 October 2013

1. OPERATION SUMMARY:

a. Daily average river flows ranged from 92.3 to 131.6 kcfs. Daily average project tailwater ranged from 9.5' to 12.8' msl. Daily average powerhouse forebay elevation ranged from 75.0' to 75.7' msl. Daily average water temperatures ranged from 64°F to 67°F. Secchi disk measurements ranged from 3.5' to greater than 7.0'.

b. Spill Bays 01 and 18 provide attraction flow for Cascades Island and B-branch, respectively. They are open 6" during daylight hours. Daily average spill ranged from 1.1 to 1.3 kcfs.

c. Unit Operation. Powerhouse Two is the priority powerhouse. Split flow operation ended on 23 September.

(1) Unit 01 went out of service at 0946 on 23 July for a 5 year overhaul.

(2) Unit 11 went out of service at 0900 on 09 September 2012 for high thrust bearing temperatures.

(3) Unit 14 went out of service at 0741 on 09 September for digital governor installation.

d. 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. Gatewell drawdowns are measured on Tuesdays and more frequently as needed.

2. ACTIVITIES:

a. Auxiliary Water System Closures. The following AWS closures occurred this reporting week:

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(1) FV1-1 was closed for cleaning from 0657 to 0704 on 30 September, from 0814 to 0930 on 01 October, and from 1540 to 1551 on 3 October.

(2) FV 3-7 was closed for cleaning from 0710 to 0720 on 30 September.

(3) FV 3-9 was closed for cleaning from 0710 to 0720 on 30 September.

b. STS/VBS inspections. Table 3. STS and VBS inspection.

| <i>Unit</i> | <i>Date</i> | <i>Run Hours</i> | <i>Comments</i> |
|-------------|-------------|------------------|-------------------------------------|
| 11 | N/A | OOS | Unit 11 remains out of service |
| 12-18 | N/A | N/A | Inspection scheduled for 21 October |

c. Dewatering and Fish Salvage. The following fish salvage activities occurred this reporting week:

(1) On 02 October, Project Biologists recovered 5 White Sturgeon, 1 Small-mouth Bass, and 1 Peamouth from the Unit 01 tail logs. All fishes were returned to the forebay in good condition.

3. RESEARCH:

a. CRITFC. Annual Chinook, Coho, sockeye, and steelhead sampling in the AFF continues.

b. NOAA – Lamprey. LPS count network installed. HD-PIT tagging continues from the AFF traps.

c. Normandeau – Fish Counting. Visual counting continues.

d. Oregon and Washington Departments of Fish and Wildlife – Tule counting. Tule counting began on 15 August.

e. PSMFC – Smolt Monitoring Program. Juvenile fish condition and index monitoring continues. No research fish were collected. Fallbacks recorded crossing the separator bars this reporting week: 71 salmon, 19 steelhead, and 19 unknown salmonids. Truck releases of summer out-migrants originating from Snake River dams began on 18 August.

f. University of Idaho – AFF. USACE funded adult salmonid sampling continues.

g. University of Idaho – Lamprey. HD-PIT and JSATs tagging continues from the

AFF traps.

h. WDFW – AFF. Sampling for the alternative gear study control group began on 20 September.

4. FISHWAYS:

a. Project biologists inspected 29 September through 05 October.

b. Fish Passage Plan Observations.

(1) Table 4. FPP Out of Criteria items.

| Date | Location | FPP Items | Cause | Response |
|--|----------|-----------------------|------------------|-------------|
| BRADFORD ISLAND (BI) | | | | |
| 9/30,10/1,4,5 | PH1CC | South ent diff < 1.0' | Unknown | None |
| 9/28 | PH1CC | North ent diff > 2.0' | Unknown | None |
| 9/30,10/3 | B-branch | Entrance diff < 1.0' | Faulty TW sensor | TR in place |
| CASCADES ISLAND (CI) – Nothing to report | | | | |
| WASHINGTON SHORE (WS) – Nothing to report | | | | |

(2) 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.

(3) A-branch diffuser FG3-3 and 3-6 are partially open in manual. FG3-5 is closed in manual. Repairs will occur when the Bradford Island ladder is dewatered. The next possible time period will be 2013/14 winter maintenance.

(4) PH2CC diffuser A2 is stuck closed. Diffuser B7 has been closed until repairs to the diffuser motor can be performed. The next possible time period will be 2014/15 winter maintenance.

c. Fishway Temperatures. Temperatures are normally taken from 01 March through 30 November. Forebay temperature as taken from the USACE website is unavailable.

Table 5. Daily Average Temperature in Degree Fahrenheit (F).

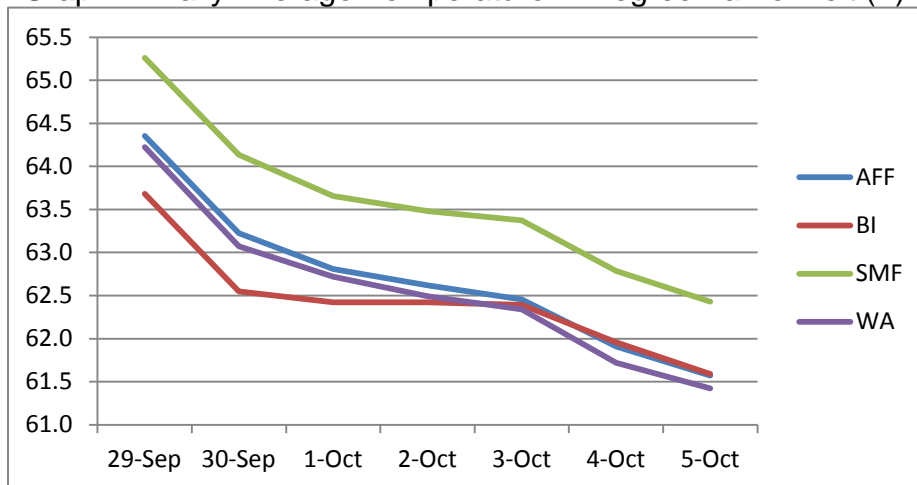
| Date | Daily Averages | | | |
|--------|----------------|------|------|------|
| | AFF | BI | SMF | WA |
| 29-Sep | 64.4 | 63.7 | 65.3 | 64.2 |
| 30-Sep | 63.2 | 62.5 | 64.1 | 63.1 |
| 1-Oct | 62.8 | 62.4 | 63.7 | 62.7 |
| 2-Oct | 62.6 | 62.4 | 63.5 | 62.5 |
| 3-Oct | 62.5 | 62.4 | 63.4 | 62.3 |

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| | | | | |
|-------|------|------|------|------|
| 4-Oct | 61.9 | 62.0 | 62.8 | 61.7 |
| 5-Oct | 61.6 | 61.6 | 62.4 | 61.4 |

Graph1. Daily Average Temperature in Degree Fahrenheit (F).



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

e. Adult Fishways.

(1) Calibration was not checked this reporting week.

(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.

(3) All SLEDs are removed.

(4) All ladders remain in service.

f. Juvenile Fishways.

(1) The intake gate for the downstream exit of the Ice and Trash Sluiceway (ITS) was discovered to be in serious disrepair on 01 September. The gate has been removed for repair, plating has been placed over the bottom of the guide slot, and the ITS was reopened on 25 September. The ITS will reclose briefly for reinstallation of the gate once repairs are complete.

(2) DSM2 remains in service.

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(3) The hydrocannon remains in service.

(4) The B2CC remains closed.

(5) All avian arrays are installed.

g. Lamprey Fishways.

(1) The Bradford Island LPS remains in service.

(2) The WA shore AWS LPS remains in service.

(3) The WA shore LPS/LFS remains out of service. The butterfly valve is closed.

(4) Cascades Island LPS was taken out of service by NOAA on the morning of 04 October based on low passage numbers.

5. CONSTRUCTION: WA Shore LPS/LFS Installation. Flume construction is complete. Repairs and modifications to the LFS are scheduled for 15 October – 12 November 2013.

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

7. TELETYPES CURRENTLY IN EFFECT:

a. A teletype sent on 27 September updates previous teletypes for treaty fishing. From 0600 on 30 September through 1800 on 03 October, request that Bonneville pool operate within a 1.5' band as a hard constraint, with emphasis on steady nighttime operations.

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Bonneville Project