



CENWP-OP-B

14 April 2004

MEMORANDUM FOR: FPOM MEMBERS

SUBJECT: Bonneville Lock and Dam Fishway and Construction Activities Report for April 15, 2004  
FPOM meeting.

## 1 CONSTRUCTION STATUS

- 1.1 PH 2 Corner Collector Hi-Q PIT tag detector- Prototype antenna construction started on Cascades Island. If feasible, the prototype antenna will then be constructed into the existing channel during the in-water work period in FY05.
- 1.2 Unit 17 VBS mods. VBS delivered on 09 April.
- 1.3 B2 Follow-on. The airburst system has been programmed to run in auto.
- 1.4 SMF hydrocannons. The hydro cannons at the SMF are not operational at this time. The Project is working on repairs.
- 1.5 Adult PIT tag exit detectors. Current schedule is set for installation in both ladders for Winter 04/05.
- 1.6 Head Gate Delivery. Off loading of headgates at PH1 is scheduled for 07 June 2004.
- 1.7 PH 1 Gantry Crane Delivery and Erection. Scheduled for 9 August through 4 December.

## 2 FISHWAY SUMMARY

- 2.1 Unit operation.
  - 2.1.1 Unit 1 remains out of service for turbine rehab.
  - 2.1.2 Units 3-5 were out of service from 0813 until 1210 on 07 April to facilitate the placement of the USGS barge in the tailrace of PH1 for testing at Unit 4.
  - 2.1.3 Unit 10 returned to service at 1000 on 08 April.
  - 2.1.4 Units 11 and 12 were out of service from 0910 until 1215 on 09 April to facilitate Unit 17 VBS delivery.
  - 2.1.5 Units 13-14 were out of service from 0910 until 0939 on 09 April to facilitate Unit 17 VBS delivery.
  - 2.1.6 Unit 15 went to manual 3D cam adjustment at 0933 on 05 April. The cam was automatically adjusting and draining power which led to a governor lock up and complete loss of control. New modules are on order. Repairs should be made by the end of the month.
  - 2.1.7 Unit 17 is out of for hydraulic testing this week.
- 2.2 Spill started at 1800 on 12 April. The B2CC was opened on 13 April.
- 2.3 DSM2 airburst is in auto. It runs every three hours.
- 2.4 DSM1 remains out of service.
- 2.5 B2CC in service.

## 3 RESEARCH

- 3.1 Battelle FGE testing. Hydroacoustic installation complete.
- 3.2 Battelle/BAE Systems FGE testing. Hydroacoustic installation complete. Data collection scheduled to begin 15 April.
- 3.3 Battelle/BAE Systems Gap Loss Testing. Scheduled to begin 06 May.
- 3.4 CRITFC. Sampling twice a week.
- 3.5 ERDC TDG. Sensors remain installed in the tailrace.
- 3.6 ODFW Pikeminnow Tagging. Electrofishing in Bonneville's forebay and tailrace.
- 3.7 NOAA FISH lamprey. Lamprey ladder installation in April.
- 3.8 PSMFC SMF. One live kelt, one dead kelt and eight fallback steelhead slid over the separator bars this week. Unusually high fish mortalities reported. *Please see attached memo.*
- 3.9 PSMFC PIT tag. Testing an antenna for the serpentine sections of the fishways.
- 3.10 Spring Creek. A release of 3.9 million fall chinook scheduled for 08 April.

- 3.11 USGS FPE testing. Installation of Radio telemetry equipment complete. First tagged fish release scheduled for 29 April.
- 3.12 University of Idaho. Sampling daily in the AFF starting 05 April.
- 3.13 Wildlife Services/Avian Abatement. The 30 day comment period for the Avian Predation Deterrent Program EA is open until 11 April. [www.nww.usace.army.mil/reports/avian/default.htm](http://www.nww.usace.army.mil/reports/avian/default.htm)
- 3.14 WDFW Fish Counting. 16-hr visual counts at Washington Shore and Bradford Island.

#### 4 MISCELLANEOUS

- 4.1 Sea lions and harbor seals have been observed in the tailrace of both powerhouses and the spillway. No action is being taken by the project to harass, harm, or otherwise annoy these animals.

#### 5 COORDINATION ISSUES

- 5.1 VBS removal at PH1. Bonneville would like to inspect the VBSs, at PH1 only, by pulling them out and visually inspecting them. We would like to do this without having to dip the gatewells. VBSs are scheduled for inspection every 1440 hours (approximately two months).

By pulling the VBSs, any juveniles in the slots could exit through the turbine intakes, which is the passage route they are taking if they aren't going through the ITS. This would be the only exit available to fish since the orifices are closed. Due to the DSM1 being out of service and the orifices closed, the STSs are stored in the gatewell slots. This makes gatewell dipping even more difficult and undesirable. This operation is requested for all PH1 units that have no STSs installed. Come September, those units with STSs will be video inspected in the same manner as in the past.

Another option would be to remove the VBSs until September, when STSs are reinstalled. If there aren't any STSs and the orifices are closed, perhaps it would make sense to leave the VBSs out so fish in the gatewell would have an exit.

- 5.2 Unit 16 index testing. HDC would like to perform index testing on Unit 16 in June/July. STSs would remain and all testing would be within the current 1% limits. The preferred unit for turbine performance testing is Unit 16, as there is historical test data with and without screens for this unit, which is useful in updating cam tables. Even though the B2 main units are of the same hydraulic design, there are performance differences between units. As such, all testing would have to be conducted on the same unit to measure the impacts the various intake configurations have on unit performance.

The tentative schedule would be:

- 1<sup>st</sup> Test. Late June, prior to June 30<sup>th</sup>,- TIES in 15A, 15C, 16B, 17A, 17C
- 2<sup>nd</sup> Test. TBD- TIES reconfigured in 15B, 16A, 16C, 17B
- 3<sup>rd</sup> Test. Early July, after July 1- TIES removed

14 April 2004

MEMORANDUM FOR THE RECORD

SUBJECT: Juvenile salmonid mortalities at the SMF

On 09 April, Pacific States Marine Fisheries Commission Smolt Monitoring Personnel reported unusually high mortality numbers in their sample. Project Biologists inspected DSM2 channel, orifices and gatewells looking for debris and signs of dead fish. Nothing unusual was seen.

It is almost an annual event to have a brief period of time when higher numbers of morts are seen in the sample. In past years, this has occurred later in the spring. Each time a thorough inspection of the juvenile bypass system reveals nothing out of the ordinary.

Biologists will continue to inspect the juvenile bypass system, looking for potential causes of mortality.



Reported mortality numbers totaled 35 (12 unclipped and 23 clipped) yearling chinook, six chinook fry, four unclipped steelhead, 17 (16 unclipped and one clipped) coho out of a total of 9,641 (3,050 fry).

09 April- four unclipped yearling chinook, nine clipped yearling chinook, one unclipped steelhead. Total sample = 1006

10 April- four unclipped yearling chinook, four clipped yearling chinook, one chinook fry, one unclipped coho, one clipped coho. Total sample = 1690

11 April- two unclipped yearling chinook, six clipped yearling chinook, five chinook fry, three unclipped coho. Total sample = 2701

12 April- one unclipped yearling chinook, two clipped yearling chinook. Total sample = 1430

13 April- two unclipped steelhead, one clipped yearling chinook, five unclipped coho. Total sample = 1095

14 April- one unclipped steelhead, one clipped yearling chinook, one unclipped yearling chinook, seven unclipped fungus ridden coho. Total sample = 1719

Bonneville Fisheries