# ARMY CORPS OF ENGINEERS WALLA WALLA DISTRICT FISH FACILITIES WEEKLY REPORT #35 - 2013

**Project: Ice Harbor**Biologist: Mark Plummer
Dates: October 25 - 31, 2013

## **Turbine Operation**

Main turbine units 1, 2, 3, and 5 were available for operation. Turbine unit 3 was out of service from October 28 at 1210 hours to October 31 at 1256 hours due to exciter issues. Turbine unit 4 went out of service October 15 at 0831 hours for governor installation and remained out of service. Turbine unit 6 remained out of service.

# **Adult Fish Passage Facilities**

Fish facility personnel inspected the adult fish ways October 28, 29, and 30.

<u>Fish Ladders</u>: The north and south shore adult fish ladder inspection areas (picketed leads, head differentials, fish way exits, and depth over weirs) were within criteria.

Adult Fish way performance: Fish way entrance criterion is 8 feet depth, greater than 8 feet depth, or on sill. All fish way entrances were within criteria, on sill, or greater than 8 feet of depth. All channel/tail water differentials were in criteria, except on all inspections the south channel/tailwater differential exceeded 2 feet. South channel velocities remained in criteria (1.5 -4.0 fps). Channel/tail water differential criteria are 1-2 feet.

<u>Auxiliary Water Supply System:</u> Two of the 3 north shore fish pumps were operated without problems. Six of 8 south fish pumps were operated without problems. All are available for operation.

## **Juvenile Fish Passage Facility**

<u>Forebay Debris/Gate well Debris/Oil</u>: Fish ladder exits are clear of debris and the bubblers are operating satisfactorily.

<u>STSs/VBSs</u>: STSs are in cycle run mode operation. STS/VBS inspections were performed October 21 and 23. No problems to report. Turbine strainer inspections were done at this time, results are listed below. November strainer inspections are scheduled for November 18 and 20.

<u>Orifices, Collection Channel, Dewatering Structure, and Bypass Pipe</u>: The juvenile bypass is watered up with 20 open orifices.

<u>Juvenile Bypass Facility</u>: No problems to report.

<u>Fish Sampling</u>: The first sample took place April 8 and the last sample was performed on July 15.

<u>Removable Spillway Weir</u>: The RSW is not in operation. Spill for fish began April 3, 2013 and ended August 31 at 2359 hours.

### **River Conditions**

River conditions during the week are outlined in Table 1.

Table 1. River conditions at Ice Harbor Dam.

Daily Average River Flow (kcfs)		Daily Average Spill (kcfs)		Water Temperature*		Water Clarity (Secchi disk - feet)	
High	Low	High	Low	High	Low	High	Low
21.9	12.8	0.0	0.0	59	57	7.8	7.8

<sup>\*</sup>Unit 1 scrollcase temperature.

### Other

<u>Inline Cooling Water Strainers</u>: Cooling water strainers were inspected on October 21 (units 2, 4 & 5) and October 23 (units 1 and 3). Unit 6 was not inspected as it remains out of service. No lamprey were seen or recovered during these inspections.

<u>Invasive Species</u>: No new invasive species were detected this week.

<u>Avian Activity</u>: The fish facility is conducting bird observations when possible. Observable predation has decreased as juvenile fish numbers decline.

<u>Research</u>: No on site research is in progress at this time.