

FISH PASSAGE O&M COORDINATION TEAM
Adult and Juvenile Fish Facilities Status Report
U.S. Army Corps of Engineers
Walla Walla District
May 10, 2007

Construction

McNary:

- TSW installations: TSW1 & TSW 2 are in operation, respectively in spill bays 20 and 22.
- Spillbay 14: Spillway gate dogged off at 3 stops on May 3. Mechanical drum brake problems do not allow automatic operation. Current mode of operation to remain in place until at least May 16. Repairs will take place when needed parts arrive.

Ice Harbor:

- Turbine unit 6 taken out of service April 26 to repair leaking hubs. A scroll case fish salvage operation took place May 3. 9 catfish were recovered and released to the river. The date the turbine unit returns to service is unknown at this time.

Lower Monumental:

- Full flow PIT tag installation: The full flow PIT tag detector continues to operate successfully.
- Fish tracking Equipment installation: Turbine units 5 and 6 and the entire spillway were taken out of service for 4 hours on April 14 to install hydrophones and radio antennas on spillway pier noses.
- RSW: Spillgate 8 was returned to service April 18 with of bulkhead removal and the completion off-season RSW contract work.

Little Goose:

- Turbine units 3 and 4 respectively returned to service April 16 and 17 after main breaker replacement and commissioning.
- Navigation Lock: Upstream gate repairs completed April 28. Prior to this time, lockages were permitted only between 1900 and 0400 hours with the use of a floating bulkhead. A second 5-hour outage was needed May 3 to replace an electronic control box (upstream gate brakes).
- Spillbays: Spill was stopped April 13 from 1200 – 1420 hours to adjust hydro-acoustic antennas.

Lower Granite:

- Turbine units: turbine unit 2 remains out of service for rewind and 6-year overhaul, with completion is not expected until mid-June. Turbine unit 5 was taken out of service from April 16 to April 18 for brake seal replacement.

Operations and Maintenance - Juvenile Fish Facilities

McNary:

- **ESBSs:** 5 separate ESBSs have been taken out of service for screen cleaner repairs over the last several weeks. Most of the problems have been transducer related. Outages ranged from several hours to 1.5 days. Screens were operated in timer mode while transducers were out of service. All are now in transducer mode. A screen in slot 5C was replaced instead of being repaired. All screen cleaning cycles were set at 45 minutes on April 19 to reduce wear and tear, then reset to 15 minutes on April 26 and 27 to meet Fish Passage Plan requirements.
- **VBSs:** A panel was repaired in slot 1C on April 30. A small tear was found in slot 3A which will be repaired at a later date.
- **Primary Dewaterer:** Debris jammed the screen cleaner on April 17 and May 1. Normal operation resumed after the debris was cleared.
- **Transport Facility:** 24 hour samples being taken when in secondary bypass. Primary bypass operations are taking place on an every-other day basis.

Ice Harbor:

- **Sampling Operations:** The facility has been sampling fish 2 times per week since April 11 without any problems. 794 salmonids have been sampled so far this season.
- **Collection Channel:** The programmable logic center link to alarm system failed April 20, was repaired and returned to service the next day. This link serves water level indicator alarms, fish screen alarms and primary dewaterer alarms

Lower Monumental:

- **Primary Dewaterer:** The mechanical screen cleaner cable was discovered slipping on a pulley on April 17. Repairs were completed the same day.
- **Collection Facility:** Secondary bypass operations began April 1. Smolt monitoring and research sampling is taking place every third day. Collection for transport is slated to begin May 11, to be followed by the first barge departure on May 12. 24-hour/day sampling operations began May 7 to provide species composition and weights.
- **Special Spill:** A special 31.5 kcfs spill operation took place May 2 from 1700 – 2100 hours to pass large volumes of juvenile salmonids present at Lower Monumental (indicated by unusual numbers of fish jumping in the forebay).

Little Goose:

- **ESBSs:** a transducer failed and was replaced in slot 4B on April 15. The same screen failed on 4/18 due to a hole in the transducer box (i.e.: flooded). Tripped breakers were noted in screens in slots 3C and 5C respectively on April 18 and 17. Both were returned to service within a day.

- Facility Operations: Little Goose remained in secondary bypass operations until 0700 hours on May 8, when collection for transport began. Direct loading operations also began May 8. First loaded fish barge left Little Goose on May 9.

Lower Granite:

- Facility Operations: Lower Granite remained in secondary bypass operations and 24 hours/day sampling mode until 0700 hours on May 1, when collection for transport began. First loaded fish barge left Lower Granite on May 2. Barge loading and departures are taking place daily.

Operations and Maintenance - Adult Fish Facilities

McNary:

- Oregon Ladder: Fish pump 3 remains out of service for overhaul and will likely return to service in mid-June. Fish pump 1 was taken out of service May 1 for 1.75 hours (actuator problems) and Fish pump 2 was taken out of service May 2 for 24 hours (air valve and electrical relay replacement). Otherwise, the ladder is operating satisfactorily.
- Washington Ladder: The Wasco PUD turbine unit remains in service and ladder operation has been satisfactory.

Ice Harbor:

- North Ladder: the north ladder is in service – 2 of 3 available pumps operating.
- South Ladder: the south ladder is in service, south pumps 1 – 8 operating satisfactorily.

Lower Monumental:

- North Ladder: in service operating satisfactorily.
- South Ladder: in service –operating satisfactorily.

Little Goose:

- Ladder: the ladder is currently in service.
- Fish Pumps: all 3 fish pumps are in service.
- Low Water Alarm: A low water alarm was noticed May 5. Staff gages were inspected and found within criteria. The problem was traced to the make up water valve which would not operate unless the power was cycled. A trouble report has been submitted, and ladder elevations continue to be monitored.

Lower Granite:

- Ladder: the ladder is currently in service. Diffuser 14 not meeting criteria due to fish trap operation.
- Fish pumps: all fish pumps are currently available for service. Fish pump 1 tripped a breaker on April 21 and April 23 due to overheating. In both cases, normal operation resumed an hour later after the breaker was reset.
- Adult Fish Trap: The adult fish trap is currently in operation. The sample system has been reset to divert 10% of the adults ascending the ladder into the trap. Scale samples are being taken from steelhead for hatchery/wild determination of unmarked fish.
- Fish Mortalities: Approximately 1,000 - 1,500 juveniles were accidentally diverted to the truck loading pit at Lower Granite on May 2 while attempting to load fish from raceway 2 onto the fish barge. Barge loading operations were immediately suspended and personnel from USGS/BRD, WDFW, and the COE quickly recovered the fish from the pit with buckets and trashcans and moved them to the wet lab recovery tank. A total of 232 mortalities were incurred including: 155 clipped yearling Chinook, 53 unclipped yearling Chinook, 1 Chinook fry, 17 clipped steelhead, 5 unclipped steelhead, and 1 unclipped sockeye/kokanee. Project personnel believe air leaked around the truck release valve diaphragm over the winter and caused the valve to malfunction. The valve has been placed in the neutral position to prevent reoccurrences.

Research

McNary:

- TSW research – Tagging in progress for hydro-acoustic tracking.
- TSW Research – Possible Spillbay Outages: some transducers ceased working. Researchers feel that magnets attaching transducers to their mountings may have dislodged. A dive is proposed to reattached transducers with bolts. The number of spill bays that need to be taken out of service is unknown at this time.

Ice Harbor:

- RSW Hydro-acoustics: in progress.
- Delayed Mortality Study: Releases through Ice Harbor outfall scheduled to began April 24. Fish are being tagged at Lower Granite and trucked to Ice Harbor for release.
- Avian Predation Study: Juvenile steelhead are being tagged and released to determine susceptibility to avian predation.

Lower Monumental:

- Gas Bubble Trauma: WDFW personnel are performing regular examination of juvenile salmonids for evidence of Gas Bubble Trauma. No signs of the disease were evident last week.
- Avian Predation Study: Juvenile steelhead are being tagged and released to determine susceptibility to avian predation.
- RSW Research: NOAA Fisheries personnel are currently tagging fish in support of hydro-acoustic tracking efforts.

Little Goose:

- RSW research: Hydro-acoustic tracking in progress. Fish will continue to be tagged until April 23. Additional work with subyearling Chinook is scheduled in June.

Lower Granite:

- Fish Transport Research: Five special barge trips have taken place in support of fish transport research over the last month. Three of these trips will released fish below Bonneville dam (departure dates from Lower Granite were April 12, 21 and 26), and two trips released fish near the Astoria bridge (departure dates from Lower Granite were April 30 and May 7). Control fish were also released near the Skamania light below Bonneville Dam during the 2 Astoria trips.
- Snake River Dams Survival Study: USGS researchers continued to acoustically tag fish in the truck loading pit.
- Reach Survival Study: NOAA Fisheries personnel continue to tag fish for release at Ice Harbor Dam.
- Comparative Tag Effects Study: NOAA Fisheries are utilizing upstream raceways to collect fish for tagging and release.

Other

- Avian Abatement Efforts: Bird hazing activities are in progress at Lower Granite, Little Goose, Lower Monumental, Ice Harbor, and McNary dams. Lower Granite and Little Goose dams respectively observed up to 142 and 70 gulls in one observation. McNary Dam reported up to 170 gulls and 15 pelicans in the tailrace. In addition 6 grebes were observed in the McNary juvenile system this last week.
- John Day Navigation Lock Outage: The John Day navigation lock will be closed from 0700 hours to 1500 hours on Tuesday, 22 May 2007 to perform tension measurements on the wire ropes on the downstream lift gate. This outage is not likely to interrupt regular fish barge runs as most barges depart the John Day navigation lock @ 1700 hours on most days.