

**MEMORANDUM FOR THE RECORD 19MCN003**

**SUBJECT: Oregon (south) shore ladder return to service.**

The Oregon shore ladder was scheduled to return to service by COB on February 28, 2019. However, due to the severe winter weather during February and the work load near the south powerhouse entrance (lamprey passage structure contract and a dive at the intake to fish pump 1), reinstallation of weir SFEW2 was delayed until February 28. Once work was completed, the exit logs were removed and the ladder was on orifice flow by 1631 hours. The 1000 CFS conduit remained open. However, due to safety concerns, it was determined it would be best to restart the fish pumps the next day. On March 1, by 0840 hours, the Oregon shore exit weirs were returned to automatic mode. At 1140 and 1150 hours, respectively, fish pumps 1 and 2 were returned to service and the entrance weirs were returned to automatic mode. However, at 1200 hours it was noted the differentials readings for fish pump 3 were not proper, possibly from a relay issue. At this time, the pump will not be restarted until it can be examined on Monday, March 4. Operating fish pumps 1 and 2 at the maximum blade angle (approximately 26 degrees) should be sufficient to keep the ladder in criteria. However, it should be noted that with the juvenile facility out of service (until late March) and not supplying 450 CFS to the north powerhouse entrances, it may be difficult to maintain ladder criteria if tailwater elevation (263.6 at 1330 today, which is very low) and flow changes significantly.

At about 1330 hours today, for approximately 30 minutes, fish pump 2 was out of service to allow a misaligned fitting to be adjusted. The ladder inspection the biologist did occurred at about this time.

Combining inspection results and control room findings after fish pump 2 returned to service we have:

- South pool differential at 1.3 to 1.4 feet.
- SFEW1 and 2 at 7.7 feet (criteria is 8.0 feet or above).
- North pool differential at 0.8 feet (criteria is 1.0 to 2.0 feet).
- NFEW2 and 3 at 7.8 feet.

Again, there is No JFF flow and the tailwater elevation was 263.6 feet. The Washington shore ladder was fully in criteria as was the Oregon ladder exit.

Species – no fish mortality occurred. There was a low probability that some overwintering steelhead may have been delayed for the first half of the day. However, the Washington shore ladder was available and in criteria.

- A. Origin – NA
- B. Length – NA
- C. Marks and tags – NA
- D. Marks and Injuries found on carcass – NA
- E. Cause and Time of Death – NA
- F. Future and Preventative Measures – The weather was beyond our control. Having the ladder in orifice flow by COB on February 28, returning two fish pumps by 1150 hour on March 1 and resolving the issue with fish pump 2 on a nonscheduled work day was a credit to the project staff.

No photos available.

Sincerely,

Bobby Johnson  
Project Fisheries Biologist  
McNary Lock and Dam