## MEMORANDUM FOR THE RECORD

## SUBJECT: Oregon (south shore) AWS Fish Pumps Out of Operation.

**Narrative:** Fish pump 3 tripped a thrust bearing oil temperature alarm on May 14 at 0100 hours. The fish pump was removed from service. After adjustments of the other two fish pumps' blade angles, the Oregon ladder entrances remained in criteria. Pump 3's thrust bearing cooler oil leak will require major repairs and a return to service date has yet to be determined.

Fish pump 1 tripped offline due to an overcurrent alarm on May 25 at 0350 hours. The two resistive thermal detectors (RTD's) that monitor the lower bearing temperature had failed. These RTD's need to be replaced to ensure the bearing temperature can be monitored. Running the pump without the RTD's would risk major pump failure and overhaul. Unfortunately, to replace these RTD's the fish pump must be dewatered. Stoplogs that were installed in pump 3 must now be moved to pump 1. The current estimated outage time for pump 1 is one month.

This morning, after the electrical staff determined the RTDS's were the issue, operators set the entrance weirs and the general maintenance staff began installing the stoplog in the floating orifice gate slots per the FPP, page MCN-25, 3.3.2.4. v.

Location: Oregon shore fishway.

Method: The ladder was adjusted per the FPP to operation with one functional fish pump, which is #2.

**Timeline - Duration**: Fish pump 1 is estimated to be down for one month. Fish pump 3's outage has yet to be determined. Operating the Oregon shore ladder with one fish pump will occur for approximately one month.

**A. Species:** There should be no fish lost.

**B. Origin:** NA

C. Length: NA

D. Marks and Tags: NA

E. Marks and Injuries Found on the Carcasses: NA

F. Future and Preventative Measures: Continue to strive to get ladder systems upgraded.

**G. Photos Taken:** None.

Bobby Johnson Project Fisheries Biologist McNary Lock and Dam