

**MEMORANDUM FOR THE RECORD**

**SUBJECT: Oregon shore ladder fish pump 3 out of service, one fish pump operation.**

**Narrative:** After investigation, it was determined the blade actuator motor for fish pump 3 was not functioning as designed. The motor was overloaded which was causing the motor protection to trip. In that state, there was a risk of damaging the motor, which is needed to adjust the blade angle. Blade angle adjustments occur whenever you need to start or stop a fish pump, adjust for changing ladder water levels, or adjustments made when another pump goes out of service. Since this is a critical function, the electrical staff quickly requested a fish pump outage to replace the motor and gearbox assembly. The work was scheduled to begin the morning of September 12. An early start occurred, so any issues that aroused could be dealt with before close of business.

The outage began at 0647 hours. The blade angle of fish pump 2 was increased to 26 degrees. Fish pump 1 is still out of service for overhaul. Per FPP, the Oregon ladder entrances were adjusted for one functional fish pump. NFEW3 was raised out of the water by 0659 hours. NFEW2, SFEW1, and SFEW2 were adjusted to a depth that allowed both entrance pool differentials to remain in criteria. With the outage expected to last less than a day, no other adjustments were made. The blade actuator motor and gearbox were replaced and fish pump 3 returned to service that day, at 1021 hours. All weirs were returned to their normal settings.

**Location:** McNary Oregon shore ladder.

**Method:** One fish pump operation per FPP.

**Timeline - Duration:** 3.3 hours as outlined above.

**A. Species:** NA

**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 have ladder systems upgraded.

**G. Photos Taken:** No

**Bobby Johnson**  
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**McNary Lock and Dam**