

**MEMORANDUM FOR THE RECORD**

**SUBJECT: 21JDA02 MFR North Fish Pump #4 out of service**

The lower bearing assembly of the motor for the North fish pump #4 was found to have failed during the 2020 winter maintenance season. The motor was pulled during the Spring of 2020 and parts were ordered to fix the problem. Limited staff during 2020 due to COVID-19 restrictions prevented maintenance personnel to address the pump until the 2021 winter maintenance season.

A further investigation during the 2021 winter maintenance season, and since bulkheads were in place and the motor was already pulled, allowed maintenance personnel to inspect the pump assembly of North fish pump #4. Upon investigating the pump assembly and lower bearings of the pump, they found significant damage to the pump assembly which likely caused the damage to the lower guide bearing of the motor itself.

North fish pump #4 will have to be overhauled and will not be available for the 2021 fish passage season. Currently 5 pumps are available for attraction flow at the North ladder.

- A. Species –
- B. Origin –
- C. Length –
- D. Marks and tags –
- E. Marks and Injuries found on carcass –
- F. Cause and Time of Death –
- G. Future and Preventative Measures –

Sincerely,  
JD Project Fisheries