CENWW-ODL **March 29, 2019**

MEMORANDUM FOR THE RECORD: 19 LWG 02 Fish Ladder Partial Dewater

SUBJECT: Partial Fish ladder dewatering due to flow issues.

At 1530 hours March 27 high water at the fish ladder picketed leads was reported. The water elevation was 664.1 feet (normal range 663.0-663.4') (see photo). At this time diffuser 14 depth over the weir was in criteria at 1.2 feet (criteria: 1.0-1.3 feet). The fish ladder was in criteria when inspected earlier at 1245 hours March 27 with water elevation at the picketed lead reading 663.4 feet.

An eight foot section of aluminum pole with a 3 inch hook/spear used for debris removal broke into the ladder while being used to determine if orifices were blocked. The fish ladder collection channel AWS pumps were removed from service at 1620 hours March 27 to prevent additional fish from entering the ladder in preparation for dewatering the next morning. Partial dewatering and tool removal occurred between 0940-1340 hours. Turbidity of 1.3 feet made it difficult to see the tool and orifices requiring the ladder be brought down to about 0.4 feet. Exit bulkheads were removed twice due to debris issues. Removal of the bulkheads also provided additional water to fish ladder exit sanctuary pools and additional flush water for the ladder. The ladder was returned to normal operating criteria at 1400 hours March 28. The problem was determined to be the automatic control for diffuser 14, increasing overflow water supply. Diffuser 14 was set at 25% open in manual mode to maintain ladder criteria until the gate operation control issues are investigated and repaired.

A. Species – Adult Steelhead. Lower Granite 10-year average passage is 184 steelhead/day (DART).
B. Origin – N/A
C. Length – N/A
D. Marks and tags – N/A
E. Marks and Injuries found on carcass – N/A
F. Cause and Time of Death – N/A
G. Future and Preventative Measures – N/A

Sincerely,
Elizabeth Holdren
Supervisory Fisheries Biologist
Lower Granite Project
Ph. (509) 843-2263

Photo 1. LWG fish ladder upstream picketed lead and weirs water level March 27.