

**MEMORANDUM FOR THE RECORD - 20 IHR 02**

**SUBJECT:** Delay in returning north shore fish ladder to service

Dredging activities in the forebay by the navigation lock upstream floating guide wall occurred from February 22 to February 29 to remove up to 2,000 cubic yards of sediment to enable replacement of the guide wall anchor cables. The sediment was disposed of in an area adjacent to an old submerged coffer dam upstream and below the elevation of the north fish ladder exit and upper diffuser intake. The north shore fish ladder was taken out of service for annual maintenance on February 4 and was scheduled to be returned to operation on February 27. The dredging permit from the Washington Department of Ecology requires that real-time monitoring of water turbidity occur at multiple locations adjacent to the dredging activities and inside the fish ladder if it was returned to service while the dredging activities were going on. There are no turbidity monitoring stations inside the fish ladder, so the project delayed returning the ladder to service until March 2, with the ladder in full operation at 1045 hours.

There are typically very few adult fish using the fish ladders in early March. The south shore fish ladder was in service during the north ladder outage. The 10-year average (counts only done in March in 2013 and 2018) number of adult steelhead counted at Ice Harbor on March 1 and 2 is 13 and 10, respectively. No other adult ESA-listed fish were observed on those dates.

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