

MEMORANDUM FOR THE RECORD 20 MCN 01 Fish loss in OR ladder**SUBJECT: Lost fish in Oregon ladder south entrance pool.**

Narrative: During the Oregon ladder winter outage, the north entrance pool, the auxiliary channel and the ladder from the exit to diffuser 4 have been dewater with successful fish rescue operations. Due to the difficulty of dewatering the Oregon ladder, the south entrance pool was dewatered to about 1 foot of water above diffuser 3. Fish were rescued but due to severely poor visibility not all fish could be recovered on February 13. The south entrance section and the powerhouse collection channel have not been dewatered in this century. A damaged diffuser was found during a dive earlier in the outage in the powerhouse collection channel near transverse slot 2. In an effort to repair the grating at the powerhouse diffuser set designated "station service" (two diffusers), the south entrance area (diffuser 2) and the powerhouse collection channel up to transverse slot 2 were finally successfully dewatered, which also dewatered powerhouse diffuser set "unit 1" (four diffusers) on February 19. The south entrance area and powerhouse collection channel section both dewatered more quickly than expected from previous experience. However, fish were successfully rescued from both sections. Those from the powerhouse section were returned to the river. Due to the urgency at the time, those from the south entrance area were moved to the south entrance pool, which had not been dewatered below the diffuser grating during this outage or any previous outage. Overnight, due to conditions that have not yet been determined, the south entrance pool, which had approximately 4 feet of turbid water in it, must have dewatered somehow, the fish listed below were lost and then the pool refilled by the time the fish were discovered at 0745 hours on February 20 in approximately 2 feet of water. The fish were recovered immediately after their discovery.

Location: Oregon ladder south entrance pool.

Method: Ladder dewatering for grating repair.

Time Line - Duration: February 19 at noon to February 20 at 1000 hours.

A. Species: 8 steelhead adults, three steelhead smolts, two Chinook smolts, 44 smallmouth bass, one walleye, two sculpins and one sucker.

B. Origin: All the steelhead, adults and smolts, were adipose clipped. The two Chinook smolts were unclipped.

C. Length: Adult steelhead were typical A run size. All smolts were 12 to 16 inches.

D. Marks and Tags: None noted.

E. Marks and Injuries Found on the Carcasses: None noted.

F. Future and Preventative Measures: After the winter outage is completed, project staff will meet to try to determine how the fish were lost and how dewatering methods may be modified in order to reduce the probably of future fish losses in this area of the Oregon ladder.

G. Photos Taken: None.

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