CENWW-OD-M Date: 2018-02-22

## MEMORANDUM FOR THE RECORD 18 MCN 001 Lamprey Mortality in Oregon ladder

**SUBJECT:** Adult lamprey mortality from the Oregon ladder exit.

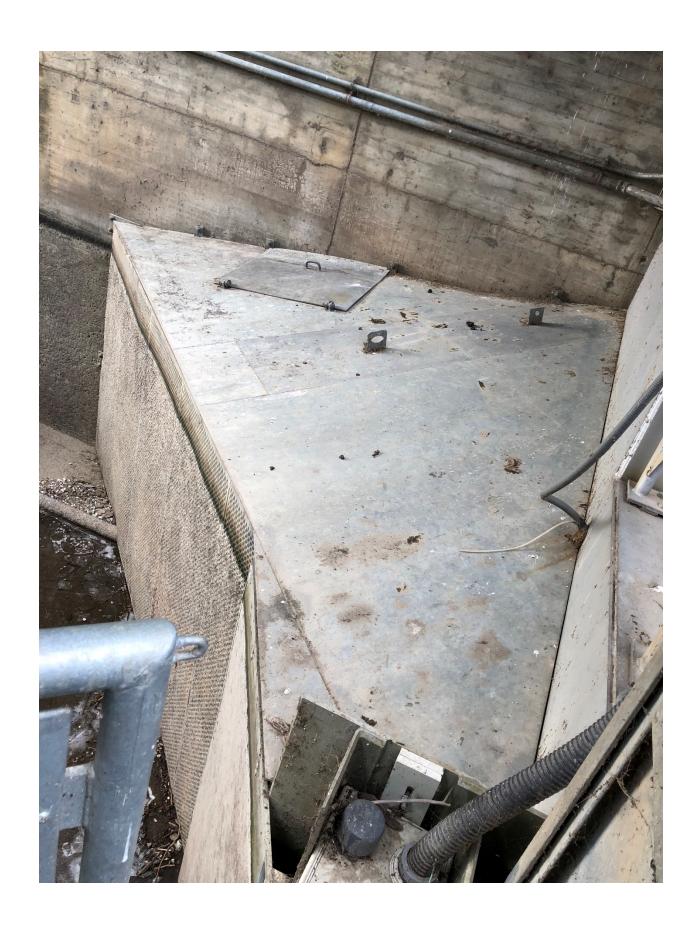
Narrative: The McNary south (Oregon) ladder has been dewatered since February 1, 2018. Today, February 22, the electrician, who is working on the count station back board repairs, noted a strong odor in the ladder. The upstream and downstream corners between the count station and the ladder wall were filled in with "spacers" when the count station was installed. These "spacers" eliminated the eddy each corner would have had and help to direct the fish into and out of the counting slot. The downstream "spacer" is covered and has an access hatch. The odor was coming from inside this "spacer". When opening this hatch, the electrician found adult lamprey mortalities and immediately call the biologist, who sent a fisheries maintenance worker to investigate. The maintenance worker confirmed the electrician's findings. The biologist assembled the fisheries staff to retrieve the mortalities, determine the cause and a solution.

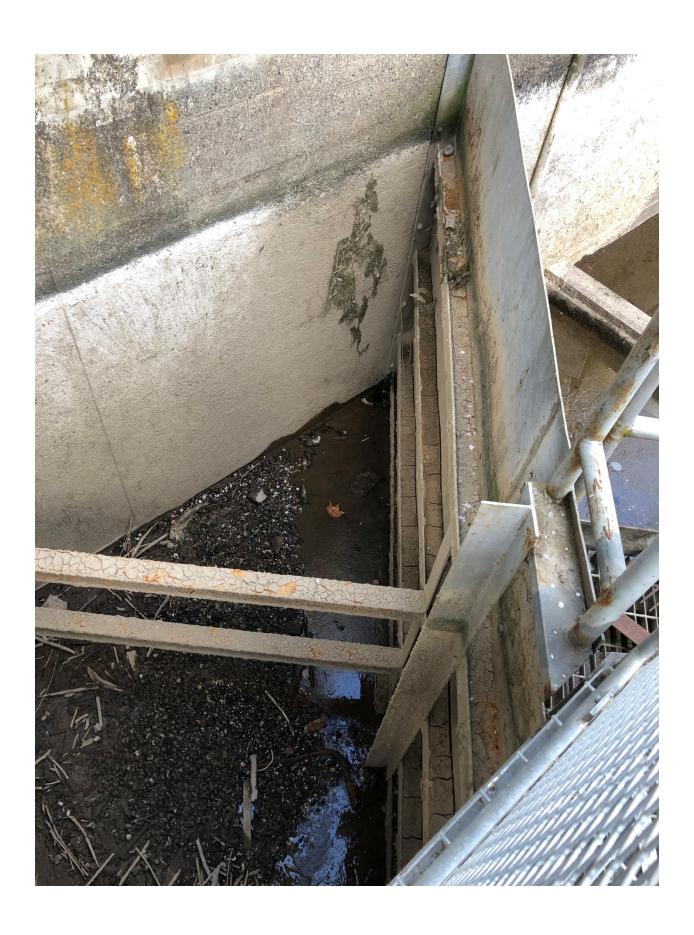
Location: Oregon ladder count station.

**Method**: Ladder is dewatered for winter maintenance, which is nearly complete. The biologist entered the downstream "spacer" to retrieve the mortalities.

**Time Line - Duration**: The ladder has been dewatered for 22 days. However, due to the various degrees of decomposition, the lamprey had been entering the "spacer" for quite some time.

- **A. Species:** Estimated 18 Pacific lamprey mortalities.
- B. Origin: Unknown.
- C. Length: Approximately 2 feet.D. Marks and Tags: None noted.
- E. Marks and Injuries Found on the Carcasses: None noted.
- **F. Future and Preventative Measures:** We found a 1 inch gap between the ladder wall and the downstream "spacer" wall. Though no lamprey were found there, the upstream "spacer" has a 1 inch gap along the ladder floor. The fisheries staff will fill in both gaps to insure lamprey cannot be stranded behind either "spacer". During past ladder dewaterings, the fisheries staff has examined the area behind the upstream "spacer". Only one adult lamprey had been noted there, which was two years ago and it swam back out. During future dewaterings, the staff will included examining the downstream "spacer".
- **G. Photos Taken:** First photo is the downstream "spacer" where the mortalities were found inside. The second photo is the upstream "spacer".





Bobby Johnson Project Fisheries Biologist McNary Lock and Dam