

**MEMORANDUM FOR THE RECORD – 14 MCN 07 – Fish Mortality Secondary Bypass Line****SUBJECT:** Fish Mortality at McNary due to Clogged Bypass Line

**Narrative:** This morning, at approximately 1100 hours, while we were in primary bypass, the Assistant Project Biologist and Biological Science Technician went out to the sample release flume dryer to prepare to empty the sample raceway. However, as they arrived at the scene, they discovered the flume dryer overflowing and spilling water and juvenile salmonids on the ground. These were fish that had migrated up from below the flume dryer, as no fish were coming down from above the flume dryer at the time. The biologist promptly adjusted the flume dryer to keep fish from spilling on the ground, and then both men proceeded to salvage fish, and called for additional assistance to help rescue grounded fish. The flow from the flume dryer was temporarily switched to the barge outlet line in order to relieve pressure on what appeared to be a clogged secondary bypass line.

In spite of their efforts, 135 fish were lost. Numbers by species are listed below.

A video (SeaSnake) camera was inserted into the bypass line, where we found a clog at the junction (“wye”) where the sample release flume dryer line joined the main secondary bypass line. The clog consisted mostly of sticks, with two dead smolts entrained within it. We tried to loosen it with a device mounted on a PVC line, but were not successful due to the tight turn in the line above the “wye.” We finally cut a hatch into the fiberglass “wye” and were able to reach in and unclog it. We will seal this, but leave it in a design that will enable it to be opened in the event that it clogs in the future.

- A. Species:** 40 clipped yearling Chinook, 38 unclipped yearling Chinook; 34 clipped steelhead smolts, 10 unclipped steelhead smolts; 12 unclipped sockeye smolts; 1 juvenile lamprey.
- B. Origin:** Mixed. See above.
- C. Length:** Variable. See above.
- D. Marks and Tags:** None noticed.
- E. Marks and Injuries Found on the Carcasses:** None noted. Some were dried out; some were fresh mortalities.
- F. Future and Preventative Measures:** Short term: Screen the top of the flume dryer, so that if this ever happens again, we will not lose fish. Install an opening in the top of the “wye” so that we can access it to clear clogs in the future. Redesign the “wye,” as the current design has a dip in it which can trap debris. Continue regular, standard debris patrols of the JFF.
- G. Photos Taken:** We tried to take a video recording of the clogged area from the SeaSnake camera, but we have not yet had to time to recover and view it. We will send it on if the recording effort was successful.

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