CENWP-OD-B **05 May 2014**

MEMORANDUM FOR THE RECORD

SUBJECT: MFR 14BON08 Fish Salvage at Willamette Falls Lock (WFL)

On 16 April, BON Project Fisheries was alerted to multiple steelhead seen in various chambers of the navigation lock at Willamette Falls. A project biologist and lock operator investigated and found at least 4 steelhead in chamber 4 and 2 steelhead in chamber 3. Multiple redds were also observed in both chambers. USACE was requested to flush or allow volitional passage to the fish if possible and to minimize handling. Although multiple ideas were suggested about how to move the fish out of the lock chambers, with the current configuration it was impossible to allow passage into the forebay or to insure that all fish would be flushed back into the tailrace. Project staff concluded that the best course of action would be to concentrate as many fish as possible into chamber 3 and salvage the fish the following day. Staff partially drained and pushed fish from chamber 4 into chamber 3 on 16 April.

On 17 April, project and district biologists returned to salvage fish from chamber 3. Although at least 4 steelhead were observed in chamber 3 the previous day, when the chamber was drained, only two fish were recovered. Despite draining the chamber was much as possible, no other fish were found. Chamber 4 was drained in a similar way and again, no fish were observed. The lock operator surmised that perhaps during the night, the automatic setting was activated and opened the wicket gates (orifice style gates in the lock doors), allowing fish to flush down to tailwater. All other lock chambers were inspected and no other fish were observed.

It is assumed that the fish entered the lock chambers during a trash flush or monthly preventative maintenance exercise. Currently, the lock gates are exercised monthly to insure functionality and prevent seizing. Future preventative measures will change the timing of lock gate openings. BON Fisheries will develop recommendations for the timing of flushing or maintenance of the gates, so that it avoids periods of active migration of salmonids. Frequent and deliberate monitoring will also occur after such activities are conducted so insure that fish are not stranded for extended periods of time.

Picture 1. One of the two steelhead recovered from chamber 3.

Sincerely,
Bonneville Project Fisheries