

MEMORANDUM FOR THE RECORD-14 LWG 11 MFR Adult Ladder Fish Mortality – 13Aug2014**SUBJECT:** MFR Lower Granite Adult Fish Mortality – 13 August 2014

Description of the problem: On Tuesday 12 August 2014 it was reported that four adult Chinook mortalities were discovered on 11 August 2014 by the powerhouse electrical crew in the parking lot adjacent to adult fish ladder Diffuser 14. On 12 August 2014 Ken McIntyre (NOAA) reported an unclipped adult Chinook on the north side of the hill adjacent to fish ladder Diffuser 14 and on 13 August another adult Chinook was found by Corps staff in the same location. Fish jumping at this location has not been a problem historically. Implementing the Rented pumps for cooling the water temperature in the fish ladder is the only operational change that occurred at this location. Other environmental factors such as water temperature fluctuation due to high air temperatures during the time period may have contributed to the problem.

- A. Species – Six adult Chinook
- B. Origin – Four clipped and two unclipped adult Chinook
- C. Length – The four found on 11 August were estimated between 22-26 inches. The Chinook found on 12 August was estimated at 25 inches. The Chinook found on 13 August was about 24 inches.
- D. Marks and tags – No tags or marks were noted on 11 August or 12 August. There were no marks or tags on the Chinook found on 13 August.
- E. Marks and Injuries found on carcass – Marks and injuries were undetermined due to decomposition of the Chinook found on 11 and 12 August. The Chinook found on 13 August had scrape marks on the right side.
- F. Cause and Time of Death – Fish mortalities were due to fish jumping out of the ladder in the vicinity of Diffuser 14. The Chinook mortalities on 11 August occurred between 1700 hours on 8 August and 0700 hours on 11 August. It is likely the Chinook found on 12 August also occurred during the same time period based on decomposition. The mortality found on 13 August occurred between 0500 hours and 1300 hours.
- G. Future and Preventative Measures – On 12 August 2014 a temporary jump barrier net about 14 feet in length was placed on the north side of diffuser 14 section of the ladder where fish are most likely jumping. On 13 August 2014 the temporary net was extended to about 28 feet in length due to the Chinook being found on 13 August 2014. Alternatives for permanent jump nets are being investigated for installation during the winter maintenance ladder outage. Corps employees will continue to monitor the ladder during cooling pump operations.

Sincerely,

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