OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE- 18 MCN 02 Spill pattern deviation COORDINATION DATE- April 5, 2018 PROJECT- McNary RESPONSE DATE- 4-9-18 by 10 AM

Description of the problem: Crane 6 at McNary is out of service due to a crack in the main load block. There are two load blocks on the crane that hook to the main lifting beam. With the load block down for repair we cannot hook it up to the main lifting beam to move or lift any spillway gates. We are finding some voids in the crane block after removing some of the old weld from a previous repair where a crack was found. We are currently waiting for the metal test results and then we need a weld plan prepared and approved by district engineers. McNary will then make the repair using the plan and load test the block which is expected to put crane 6 back in service.

Type of outage required: Use revised spill pattern (attached) until spillbay 2 can be available for adjustment using a crane.

Dates of impacts/repairs: April 10 – until repair completed

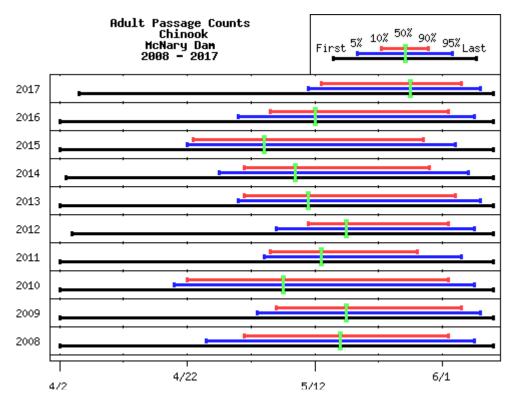
Length of time for repairs: until crane 6 repair is complete, likely 1-3 weeks

Impact on fish facility operation: None

Impact on project operations: Spill pattern requires slight modification to allow for inability to adjust spillbay 2 until crane 6 is repaired. **Spillbay 2 will operate with 4 stops until crane 6 can return to service. See attached modified table.**

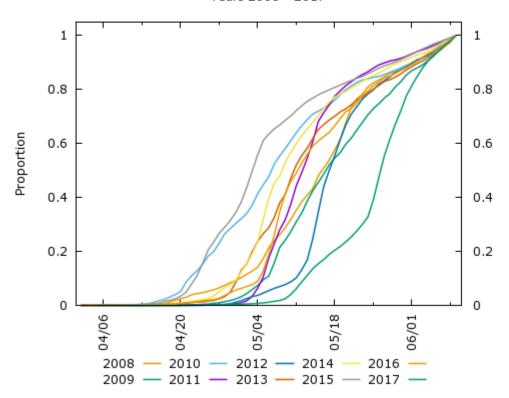
Analysis of potential impacts to fish:

- a. **Downstream migrants:** Smolts moving downstream should experience no impact or delay in finding downstream passage route with gas cap spill operation.
- b. **Upstream migrants (including Bull Trout):** Low to no impact expected since spillbay 2 is closest to north ladder, and first 1% of spring Chinook run did not pass McNary in 2017 until May 6. Steelhead passage is largely complete for 2017-18 with currently counts in single digits daily. All species will notice little change from FPP Table 7 with the proposed modification.
- c. **Lamprey:** Juvenile lamprey moving downstream should experience no impact or delay in finding downstream passage route with gas cap spill operation.



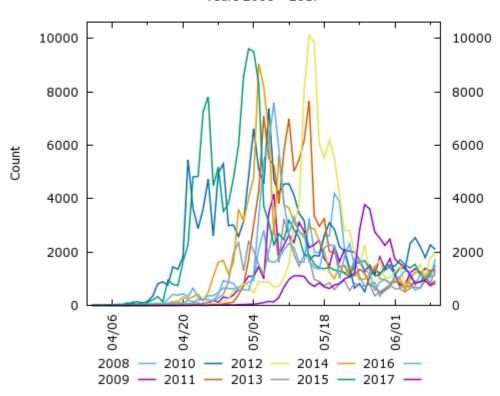
Chinook Adult Passage Counts

McNary Dam Cumulative Passage Years 2008 - 2017



Chinook Adult Passage Counts

McNary Dam Passage Years 2008 - 2017



Comments from agencies

Final coordination results

After Action update: The metal in Crane 6's north load block was tested soon after the crane was removed from service. After repair techniques were agreed upon, the repairs were completed the week of April 16. Discussions of load testing the crane took some time. On May 22, the load tests were completed, Crane 7 was moved from the TSW back to service on Spill Bay 2 and Crane 6 was returned to service and was reattached to the TSW in bay 19. Crane 6 lower limit set point required calibrating and that required lowering TSW in Bay 19 "on seal" to set the lower limit set point for the Crane. This took approximately one hour to lower onto seal, adjust limits and re-open to normal flow on May 23 from 1330 to 1440 hours.

On May 12, it was noted the spill pattern in MCN Table 7, which already had been modified for bay 2 at 4 stops, had to be expanded. This was completed on May 15. On

May 22, we requested the spill table to be changed again to reflect the fact that bay 2 no longer had to be dogged off at 4 stops. Currently, we believe the bay would be at 10 stops IAW with the expanded flow tables. We anticipate getting the modified Table 7 on May 24.

Please email or call with questions or concerns. Thank you,

Mc Nary Project