

**OFFICIAL COORDINATION REQUEST FOR
NON-ROUTINE OPERATIONS AND MAINTENANCE**

**COORDINATION TITLE- 20 MCN 14 Early Emergency Bypass for JCC
maintenance**

COORDINATION DATE- 10/06/2020

PROJECT- McNary

RESPONSE DATE- 10/20/2020

Description of the problem: As has been documented in previous MFR's and ESA weekly reports, there have been multiple issues with the JCC dewatering screens' cleaning brushes and the two side dewatering valves that control the channel water elevation. Due to another year with early start up in 2021, the juvenile bypass system winter maintenance season of 2020-2021 will be only two months long instead of the normal three months. The one way to increase the maintenance window is to switch to emergency bypass a month early. During this winter outage, ESBS removal is scheduled to begin on December 14. The project switches from Primary Bypass to Emergency Bypass with the first day of ESBS removal. Without changing the ESBS removal start date, the proposal is to begin emergency bypass on November 16, which would provide the full three-month winter maintenance. This extra time would be used to work on the dewatering screens' cleaning brushes, the side dewatering valves, and explore corrective solutions to the channel control program issues. Addressing these issues will improve operational reliability for 2021 juvenile fish passage season.

Currently, the transition screen cleaning brush is out of service due to intermittent magnetic limit switch issues. There is a concern that the existing limit switch issues could happen to the other two brushes. Both side dewatering valve's actuator motors have been running hot at times, which raises concern about future thermal trips. The north valve has been consistently hanging up, possibly below water line, which we are concerned may lead to valve failure next season. In its current state we are worried the system may be forced into emergency bypass before November 16.

As part of the preparations for early start up, fisheries technicians are scheduled to be furloughed earlier due to budget constraints. This results in reduced staffing, which means, there will be limited staff to monitor the channel at night. Issues that were previously resolved quickly during the normal season, will soon take more time for techs to respond to.

Due to Covid 19, project personnel are still on inside/outside crews. This limits the number of people who can work on the JCC systems. There is no clear understanding of the future possible adverse effect of Covid. Thus, having another month available for maintenance seems prudent.

Type of outage required

Impact on facility operation (FPP deviations): Fish would be bypassed through the Emergency Bypass route rather than the Primary Bypass route one month earlier.

Impact on unit priority: None.

Impact on forebay/tailwater operation: None.

Impact on spill: None.

Dates of impacts/repairs: November 16 to December 14.

Length of time for repairs: This restores the full 3-month winter maintenance schedule by providing 29 additional days to work on JCC issues and support the 2021 early start up.

Analysis of potential impacts to fish: The last year the facility operated into November and December was 2003. Project operations have changed greatly since then. Data for adult and juvenile bypass from mid-November through mid-December has not been collected for over a 15-years. Based on fish salvage operations when shutting down the bypass system, we would expect very few smolts to be in the system during the proposed timing. Low numbers of adult Chinook salmon may be present early during the proposed timing. Adult summer steelhead would be the most prevalent.

There is no indication that the emergency bypass route has any detrimental effect on any fish passing through it.

For the proposed operation there would be a loss of bypass PIT-tag detections because the Emergency Bypass route does not pass fish through the Full Flow detectors. Based on the previous 5-years average PIT-tag detections in the McNary Dam JBS between November 16th and December 14th have averaged 18 adult fish and 26 juvenile fish. These were comprised of an average of 17 adult steelhead, less than one each for adult Chinook and Coho salmon, 25 juvenile Chinook salmon and less than 1 juvenile steelhead.

Summary statement - expected impacts on:

Downstream migrants: Minimal to adults or juveniles. There would be a very small reduction in the numbers of PIT-tag fish detected passing through the bypass system.

Upstream migrants (including Bull Trout): None. The adults have already fallen back.

Lamprey: None.

Comments from agencies: No comments or concerns were expressed by the regional FPOM reps.

Final coordination results: MOC was approved 10/21/20.

After Action update:

We switched from primary to emergency bypass on November 16, from 0815 to 1115 hours.

The electrical staff will be working on the control program and all brushes' limit switches.

This should resolve the side dewatering valve heating issues and the brushes' failing to complete cycles issue.

Please email or call with questions or concerns.

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