

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

**COORDINATION TITLE** – 14 MCN 27 - Placing McNary Juvenile Collection Channel into Emergency Bypass.

**COORDINATION DATE** - 13 November 2014

**PROJECT** - McNary Lock and Dam

**RESPONSE DATE** – 11 November 2014

**Description of the problem:** Per the most recent weather.gov forecast, we will be experiencing 24°F temperatures tonight, 16°F temperatures Tuesday night, and freezing temperatures for the next week, as a cold front moves through the area. We need to go into emergency bypass and dewater the McNary Juvenile Fish Facility (JFF) by no later than Wednesday, November 12, to avoid serious freezing damage to the JFF. Unlike the Little Goose and Lower Monumental facilities, the McNary juvenile fish facility remains “watered up” during primary bypass operations. All supply and drain piping and valves are exposed and vulnerable to outside temperatures. Currently, the only practical way to avoid damage is to enter emergency bypass operations. Engineers have designed a bypass valve that, most likely starting in Fiscal Year 16, will enable us to dewater the JFF without going into emergency bypass; currently we lack that ability.

**Type of outage required:** Enter emergency bypass operations. This requires the temporary closure of all 42 orifices during the transition.

**Impact on facility operation:** Limited. Once into emergency bypass, fish will continue to be guided by the ESBS/VBS screen system into the juvenile collection channel, but they will pass out the north sluiceway instead of the primary bypass (outfall) pipe. We will lose the PIT tag count, because there are no PIT tag detectors on the north trash sluiceway. Emergency bypass is currently the only practical way to dewater the JFF to prevent serious damage to the piping facilities. The freezing and expansion of frozen water would likely break expensive pipes and valves. If we did not dewater the JFF at the source, almost the entire system still would remain exposed, possibly resulting in extensive damage to the facility.

**Dates of impacts/repairs:** We would go into emergency bypass and remain there until the passing of the freezing weather. If freezing conditions do not pass before December 1, we would remain in emergency bypass, per the Fish Passage Plan, through the last day of the fish passage season, December 15.

**Length of time for repairs:** No repairs required. It takes about four hours to transition into emergency bypass.

**Expected impacts on fish passage:** All of the 42 orifices will be shut down (a few at a time) just long enough for us to dewater the floor screens, move the fish out of the dewatering screen area, place the collection channel stoplogs, remove the floor panels in the juvenile collection channel, and restart all 42 orifices. The whole process takes about 3 – 4 hours, so some fish in the gatewells could be delayed from 3 to 4 hours.

**Comments from agencies:**

**Final results:**

Please email or call with questions or concerns.

Thank you,

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