

OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE – 22 MCN 14 Shift Late Summer Spill Pattern to Install TSW

COORDINATION DATE – August 18, 2022

PROJECT - McNary Dam

RESPONSE DATE – ASAP

Description of the problem- Per the 2022 Fish Operations Plan (FOP) and Fish Passage Plan (FPP), McNary Dam is required to spill 20 kcfs through bays 14, 15, 18, 19 and 20 from August 15 through August 31 (FPP Table MCN-9, FOP 8.5.2.). In 2022, McNary Dam implements surface spill via the TSW in Bay 20 for adult steelhead three days per week starting September 1 rather than October 1 (FPP, Chapter 5, 2.2.2.i.). The process to install the TSW in Bay 20 takes approximately 3-4 workdays (FPP, Chapter 5, 2.3.2.6.v.). This work requires spillbays 14-21 to be closed to safely retrieve and install various spillbay gate components. Therefore, McNary Dam is not physically capable of conducting late summer spill via Bay 20 through August 31 then beginning TSW spill on schedule in September.

In order to start TSW spill for adult steelhead on time, McNary Dam would like to close spillbays 13-22 for TSW install August 28-31. During this time, McNary Dam would shift spill to bays 1, 3, 4, 5, 7, 8, 9 and 10. Spillbays 2 and 6 would remain closed as they do not have current working hoists and spillbays 11 and 12 would remain closed to alleviate poor tailrace conditions.

Type of outage required- Close spillbays 13-22 for TSW install in Bay 20 and spread spill across bays 1, 3, 4, 5, 7, 8, 9 and 10.

Impact on facility operation (FPP deviations)- Change in spill pattern in order to install TSW in spillbay 20 and implement surface spill as scheduled in September.

Impact on unit priority- None.

Impact on forebay/tailwater operation- Tailrace conditions may be impacted.

Impact on spill- Change in spill pattern in order to install TSW in spillbay 20 and implement surface spill as scheduled in September. Spill volume will not change.

Dates of impacts/repairs- Shift late summer spill pattern August 28-31.

Length of time for repairs- Approximately 3-4 workdays.

Analysis of potential impacts to fish

1. 10-year average passage by run during the period of impact for adults and juvenile listed species, as appropriate for the proposed action and time of year;

For August 28-31, the daily average adult passage at McNary Dam consists of 1,652 fall Chinook salmon, 462 steelhead, 5 sockeye salmon, 119 coho

salmon and 10 lamprey.

2. Statement about the current year's run (e.g., higher or lower than 10-year average);

As of August 16, the fall Chinook salmon run is 129% and 112% of the 10-year average at Bonneville and McNary dams, respectively. The steelhead run is 73% and 97% of the 10-year average, respectively.

3. Estimated exposure to impact by species and age class (i.e., number or percentage of run exposed to an impact by the action);

Adult counts at McNary Dam during the August 28-31 period make up 2.6% of the 10-year average run for adult fall Chinook salmon, 1.6% for adult steelhead, <0.1% for adult sockeye salmon, 1.3% for adult coho salmon and 2.7% of adult lamprey. In 2021, during the same time period, less than 1% of the annual total smolt index for all juvenile species were observed as peak migration occurs earlier in the season.

4. Type of impact by species and age class (increased delay, exposure to predation, exposure to a route of higher injury/mortality rate, exposure to higher TDG, etc.);

Upstream migrants may experience delay due to a change in tailrace conditions, but minimal impacts are expected as attraction flow to fishway entrances will not be impacted. Downriver migrants may also experience delay and an increase to predation due to a change in tailrace conditions, but juvenile presence is low during this time of year.

Summary statement - expected impacts:

Downstream migrants: Subyearling Chinook salmon are the predominant species during this time period, but abundance is low. Juvenile downstream migrants may experience delay and potentially an increase in predation.

Upstream migrants (including Bull Trout): Minimal impact to passage are expected as attraction flow to fishway entrances will not be impacted.

Lamprey: Minimal impact to passage are expected as attraction flow to fishway entrances will not be impacted.

Comments from agencies:

From: Tom Lorz <lorz@critfc.org>

Sent: Friday, August 19, 2022 10:03 AM

To: St John, Scott J CIV USARMY CENWW (USA) <Scott.J.StJohn@usace.army.mil>

Subject: [Non-DoD Source] Re: SHORT SUSPENSE_22 MCN 14 MOC Shift Late Summer Spill Pattern to Install TSW

Not a big deal should be ok. Thanks

Final coordination results: Approved, no objections.

After Action update: The late summer spill pattern at McNary Dam was shifted to alternate bays on August 28 from 12:30 to 14:30 to accommodate the TSW installation. Installation of the TSW began at 07:30 on August 29 and was completed at 12:40 on August 30. Spill was not returned to the late summer spill pattern as outlined in the Fish Passage Plan due to known issues with cranes and hoists and the limited time remaining for summer spill. Summer spill ended at approximately 23:59 on August 31. McNary Dam is scheduled and prepared to conduct surface spill for adult steelhead beginning September 2 at 05:00.

Please email or call with questions or concerns.

Sincerely,

Bobby Johnson

Project Fisheries Biologist

McNary Lock and Dam

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