OFFICIAL COORDINATION REQUEST FOR
NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE- 22 LWG 01 RSW Detection Efficiency
COORDINATION DATE- 4 February 2022
PROJECT- Lower Granite Dam
RESPONSE DATE- 10 February 2022

Description of the problem The US Army Corps of Engineers has awarded an Economy Act Order to NOAA Fisheries to assess post-construction conditions of Lower Granite Dam's spillbay 1 (with RSW) and the passive integrated transponder (PIT-tag) detection efficiencies following installation of a new detection system. PIT-tagged hatchery yearling Chinook salmon (*O. tshawytscha*) will be released into the entrance of spillbay 1 at three locations horizontally across the spill bay at mid-water column depth to evaluate single fish detection efficiencies at the recently installed ogee PIT detection system

Type of outage required Request is not for an outage, but to extend the period of spill through the RSW from the prescribed 4-hour window (0500-0900) to an 8 hour window (0700-1500) for fish releases directly into the entrance of RSW. The prescribed 4-hour window (0500-0900) will be reduced to a 2-hour window (0500-0700) on 13 and 15 Mar.

Impact on facility operation Change to RSW operation timing and duration.

Impact on unit priority No impact to unit priority.

Impact on forebay/tailwater operation No impact to forebay/tailrace operation.

Impact on spill Increased spill period through RSW.

Dates of impacts/repairs Proposed fish release date is Thursday 17 Mar 2022. Release pipes will be installed on 16 Mar 2022 (RSW no-spill day), and pipes removed after fish releases are completed on 17 Mar 2022.

Length of time for repairs Requested period of RSW spill is 8 hours, on 17 Mar 2022.

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; Based on Columbia River DART site primary adult upstream migrant during the proposed test period in mid-March is Steelhead. In 2021, the average in mid-March was 40-100 individuals per day, and the 10-year average is 70-120 per day. For adult Chinook, no individuals were noted in 2021, and the 10-year average is less than 1 fish per day, in mid-March. Based on smolt index and historical run timing tools, few juveniles are present in mid-March. In 2021, yearling Chinook

ranged from 2-12 individuals in mid-March, and juvenile steelhead ranged from 5-18 individuals during the same period.

2. Statement about the current year's run (e.g., higher or lower than 10-year average); It is early in the current year's run, but general consensus is that the Steelhead run will be lower than the ten-year average. The current year's Chinook run is still uncertain, but should not be impacted by the proposed study in mid-March at Lower Granite Dam.
3. Estimated exposure to impact by species and age class (i.e., number or percentage of run exposed to an impact by the action); Impacts of the request for extended RSW spill from 4 hours to 6.5 hours, is low. Few juvenile or adult salmonids are present in the forebay during this time. Both juveniles and adults could be passed through the RSW during the test duration, but impact would be very low.
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.); passage through the RSW should not negatively impact juveniles, as it is considered a preferred passage route. Passage of adults downstream would cause delay to upstream migrants.

Summary statement - expected impacts on:

Downstream migrants The expected impacts to downstream migrants will be low. Few juveniles are present in mid-March. Fish may be attracted to pass through the RSW during the extended day period, but this is a preferred route of passage.

Upstream migrants (including Bull Trout) The expected impact would be low for upstream migrants during mid-March. Adult Steelhead passing the dam range from 70-120 per day, so there is minimal risk of adults in the forebay falling back through the RSW during the open period. Adult Chinook are less than one individual per day passing the project, so very low impact is expected. Bull trout were not found in the 10-year average during mid-March period.

Lamprey Juvenile lamprey could be present during the targeted test period depending on spring freshets, and may be passed through the RSW. If this occurs the impact is expected to be low. Adult Lamprey could be present in the forebay, but in very low numbers, and the impact is thought to be very low.

Comments from agencies

Final coordination results

After Action update (After action statement stating what the effect of the action was on listed species. This statement could simply state that the MOC analysis was correct and the action went as expected, or it could explain how the actual action changed the

expected effect (e.g., you didn't need to close that AWS valve after all, so there was no impact of the action). List any actual mortality noted as a result of the action)

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

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