

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

COORDINATION TITLE- 17 LWG 19 MOC Adult Entrance ROV inspection

COORDINATION DATE- 31 July 2017

PROJECT- Lower Granite Dam

RESPONSE DATE- 10 August 2017

Description of the problem: NPE 2 north operating cable was found broken April 17 and NPE 1 right side cable rigging was found detached from the weir gate May 19. NPEs normally remain on sill when operating at MOP elevation. Both gates were confirmed to be on sill when the problems were found. An ROV inspection is needed to determine requirements for repairing the gates during the winter outage. An additional inspection will need to be performed on the NSEs prior to winter maintenance dewatering and fish rescue to ensure personnel safety inside the collection channel past the transverse bulkhead at diffuser 13. This inspection will also be beneficial in preparation for permanent closure of NPE 3 and NSE 3 that is scheduled for the 2017-2018 winter maintenance outage. Inspection with the ROV requires the RSW be closed, likely shifting spill through different spillways (maintaining 18 kcfs), AWS pumps removed from service, and unit 5 and 6 in standby. The project is requesting removing the AWS pumps from operation and adjust spill as needed to inspect NPES and NSEs for a total of about six hours during the work week of 14-17 August. The Project would like to repair NPEs cables following the inspection if possible within a short period of time.

Type of outage required: Ladder AWS pumps will need to be removed from service for the duration of the inspections. Spill volume will remain around 18 kcfs with spillways adjusted as needed for successful inspections.

Impact on facility operation: Removing the AWS pumps from service will result in ladder operation outside of the entrance head differential and depth over entrance weir criteria.

Impact on unit priority: N/A

Impact on forebay/tailwater operation: Tailrace conditions will likely be impacted as spill pattern changes will be required for inspections.

Impact on spill: Spill volume will remain around 18 kcfs with spillways adjusted as needed for successful inspections.

Dates of impacts/repairs: The project proposed to do the ROV inspection the work week of 14 August -17 August.

Length of time for repairs: A total of about six hours will be required to complete the ROV inspections of all four gates.

Analysis of potential impacts to fish

1. The 10-year average passage during the work week of 14 August -17 August is about 57 Chinook and 245 steelhead. This timing falls between adult Sockeye and Fall Chinook passage. Collection from the adult trap for NPT and WDFW begins with the Fall Chinook passage season 18 August. Minimal impact to subyearling Chinook is expected.
2. Summer Chinook passage at Bonneville Dam 24-30 July was about 72% of the ten year average and Steelhead passage was about 25% of the ten year average.
3. Based on the 10 year average daily passage at Lower Granite a full day ladder outage has the potential to impact about 0.16% of annual Steelhead passage and about 0.16% of annual fall Chinook passage. However the project is not requesting the AWS pumps be removed from service for a full day.
4. During the ROV inspection AWS pumps will not supply attraction flow for Fall Chinook and Steelhead passage.

Summary statement - expected impacts on:

Downstream migrants- Minimal impacts are expected for subyearling Chinook.

Upstream migrants- See comments above.

Lamprey- There is the potential to impact lamprey passage.

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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