

OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE - 21 TDA 03 The Dalles South Fishway Entrance
Sinkhole Repair

COORDINATION DATE - March 1, 2021

PROJECT - Sinkhole repairs at the Dalles Lock and Dam near the southern wall of the south fishway entrance.

RESPONSE DATE – March 11, 2021 (FPOM meeting)

Description of the problem – Several sinkholes have formed along the southern wall of the south fishway located at The Dalles Lock and Dam. The sinkholes are approximately 4-10 feet deep. Repairs involve removing loose soils in the holes and filling in the holes with compacted or controlled-density fill. An excavator, dump truck and skid-steer loader will be used for the work.



Figure 1. Aerial photo showing locations with descriptions of sink holes near The Dalles Dam west fishway entrance (south west corner of the dam).



Figure 2. Photo illustrating the size of one sink hole developing near The Dalles Dam south fishway entrance. Along the southern fishway wall.

Type of outage required – No outage required; all work will be completed outside of the fishway.

Impact on facility operation: No anticipated impact to facility operation.

Dates of impacts/repairs: March 15 to March 16, 2021

Length of time for repairs: 1-2 days

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;

There is normally no fish counting the month of March at The Dalles. Recent 10yr/avg data for total last week of March average 2 chinook and 0 steelhead passage. Chinook normally don't start passing until first week of April and Steelhead last week of April. Reference Fish Passage Center.

2. Statement about the current year's run (e.g., higher or lower than 10-year average); Forecast are for modest Spring Chinook and low steelhead returns.

3. Estimated exposure to impact by species and age class (i.e., number or percentage of run exposed to an impact by the action): Less than 1% of any run might be exposed to vibration.
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.): Adult Spring Chinook or adult steelhead in the immediate area might sense some vibration from the equipment used to perform the work. An excavator, dump truck and skid-steer loader will be used for the work. It is unknown how this might impact their behavior. Some fish managers have expressed concerns about passage delays caused by work near the fish ladders.

Summary statement - expected impacts on:

Mid-March is a time of very low fish passage. Less than 10% of the total passage enters the south entrance. This is the least used entrance at The Dalles Dam. Very few fish are expected to be exposed to this vibration from this work. If by chance there is a salmonid in this vicinity, it is unknown whether this work will cause negative reaction. There is no data on how salmonids or other fish react to vibrations near fishways.

Comments from agencies

FPOM 3/11/21 Morrill (WDFW) asked about size of sink hole. Cordie responded about two feet. Bettin (BPA) asked if a compactor will be used? Cordie responded yes, a small hand operated compactor. Lorz (CRITFC) asked about the cause – Cordie thinks it is due to 50 years of settling. Van Dyke (ODFW) asked if they would dig out and re-fill. What if they discover a larger cavern under the ground? Cordie would bring the issue back to FPOM.

Final coordination results

FPOM generally concurred that the work should be done quickly prior to the start of the Spring Chinook run.

Please email or call with questions or concerns.

Thank you,

Bob Cordie
Chief of Fisheries
The Dalles Lock & Dam

Nathan McClain

Columbia River Coordinator (temporary)
US Army Corps - Portland District
C: 541-554-3137

4/1/2021 Update by email from Bob Cordie, "Determined not a threat to fishway.
Result of large rocks used for backfill, creating voids. All heavy equipment work
completed last week of March."