

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

COORDINATION TITLE- 17BON09 Bonneville Cascades Island Interim Repairs

COORDINATION DATE- 08 May

PROJECT- Bonneville

RESPONSE DATE- May 23, 2017

Description of the problem

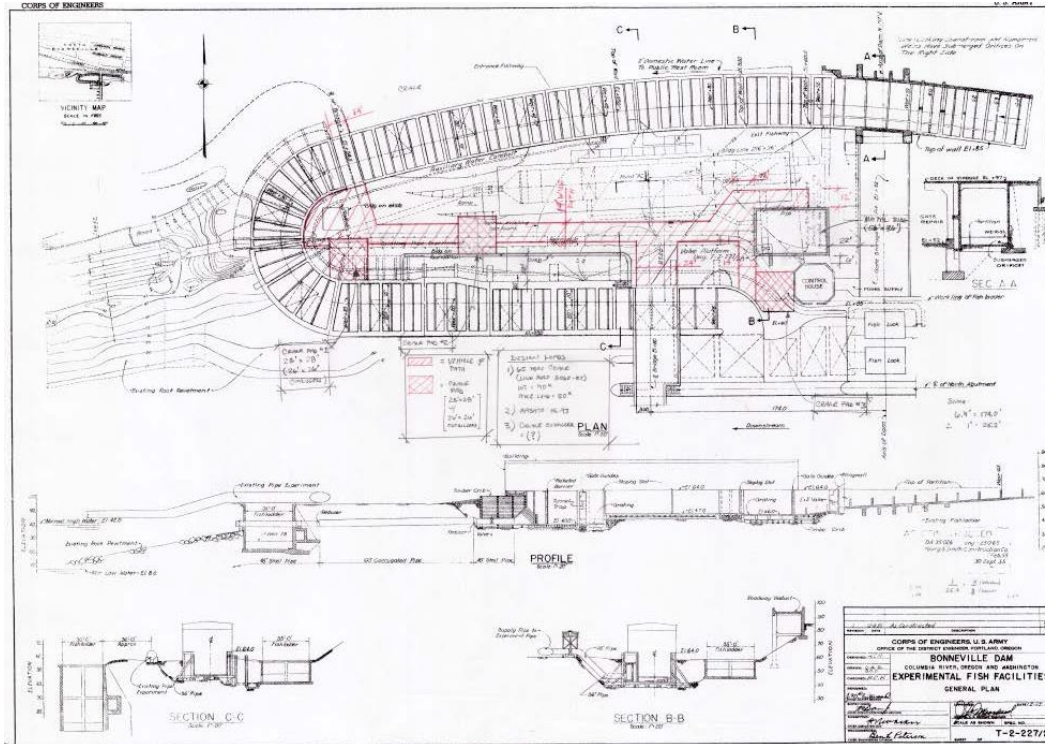
There is a significant and documented risk with vehicular and crane access to the area downstream of the Main Dam within the Cascades Island Fish Ladder due to sinkholes and subsidence. A large sinkhole was identified near the southwest corner of the fish ladder in January 2015. Additional sinkholes were identified in summer 2015. Subsidence has also been occurring near the fish ladder, where various holes have formed. The access path and crane pads that cross this area are frequently used by the Bonneville Project for fish ladder maintenance. Routine maintenance of the fishways has been impacted due to uncertainty of ground stability for routine vehicular access and for staging crane activity. Future work in the Spillway Gate Storage and Repair Pit will also require vehicular access.

Reinforcement and stabilization of approximately 10,000 square feet of the vehicular path and crane pads is required to provide safe access to the fish ladder and to the Spillway Gate Storage and Repair Pit. If reinforcement is not designed and installed, subsidence of the path and crane pads will likely continue leading to permanent closure of the area. If fish ladder maintenance is not performed then the fish ladder will eventually be operating outside of BiOP requirements. The reinforced path is also needed to access the Spillway Gate Storage and Repair Pit. Future maintenance on spillway gates cannot be performed without this vehicular access.

This project will provide an interim repair to the subsidence area. The scope of work includes an excavator on-site to remove 18 inches of material, place geotextile and geogrid down and then place 3/4 inch gravel on top so that the crane and other vehicles can safely operate in the area. The goal is to complete the work after the In Water Work Window ends in March of 2018.

*The start date is now proposed to be 15 February 2018. The work window will still run through 16 March.

Figure 1. Overhead view of proposed work area at Bonneville's Cascades Island.



*Above text and figures taken from “Charter No 2017 – 5”, Planning, Programs and Project Management Division, and “Bonneville Cascade Island Subsidence Repair Letter Report”

Type of outage required

Impact on facility operation

Some work will be done within 50’ of an operating fishway and 100’ of an operating fishway entrance (2017 FPP BONN 2.1.4)

Impact on unit priority

None

Impact on forebay/tailwater operation

None

Impact on spill

None

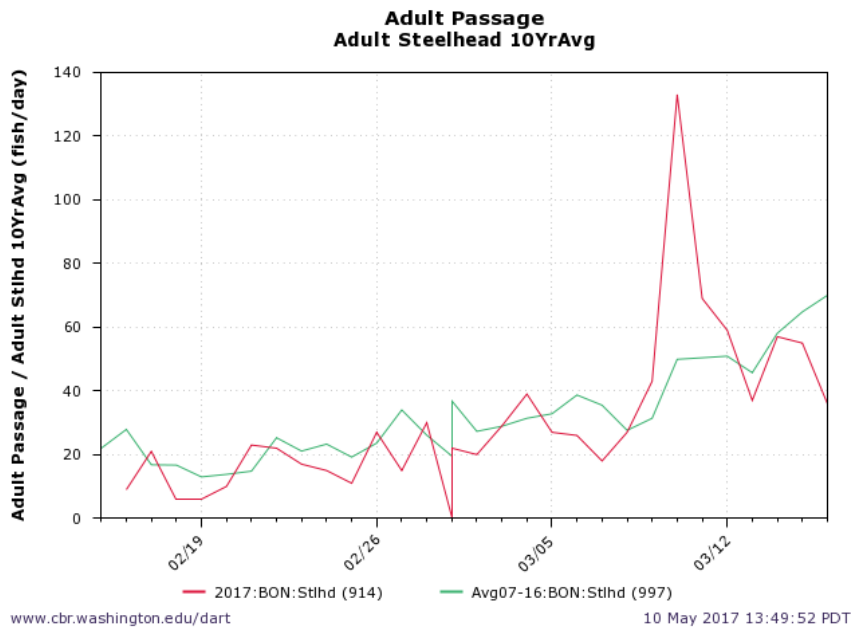
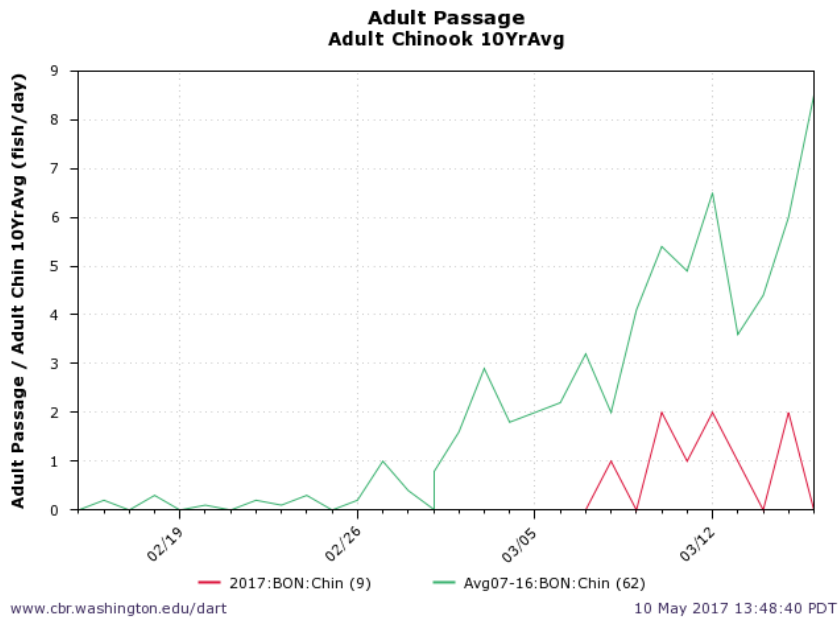
Dates of impacts/repairs

15 February -16 March 2018

Length of time for repairs
Up to one month.

Analysis of potential impacts to fish

1. 10-year average passage by run during the period of impact for adults.



2. The full NOAA forecast for 2018 is not yet available.

3. The 10 year average for adult Chinook passage for this time frame is 63 fish. An average of 0.000082% of the yearly Chinook run would be passing Bonneville during the work period and could potentially be affected.

The 10 year average for adult Steelhead passage for this time frame is 998 fish. An average of 0.0030002% of the yearly Steelhead run would be passing Bonneville during the work period and could potentially be affected.

4. The impact of this work will be underwater noise pollution from machinery sometimes working within 50' of the ladder or 100' of the ladder entrance. The impact on both adult Chinook and Steelhead passage up the Cascades Island ladder is expected to be negligible. The Cascade Island ladder is not a major downstream migration route for juveniles.

Summary statement - expected impacts on:

Downstream migrants

None.

Upstream migrants (including Bull Trout)

Minor delay, if any.

Lamprey

None.

Comments from agencies

Final coordination results - FPOM concurred with this action at the May FPOM meeting and suggested trying to do it as early as possible.

After Action update - The work was completed as coordinated.

Please email or call with questions or concerns.

Thank you,

Andrew

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and

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