

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

COORDINATION TITLE- 20BON81 Spillway Hydro-survey

COORDINATION DATE- 8/12/2020

PROJECT- BON

RESPONSE DATE- 26 August 2020

Description of the problem

With this season's spill exceeding the levels known to cause rock migration into the stilling basin, there is a need for a hydro survey to check for location and extent of rock accumulation. We will need spill bays 1 and 18 closed, one at a time, for up 8 hours.

Type of outage required

Impact on facility operation: (FPP deviations) Closure of Spill bay 18 which is attraction flow for B-branch fishway entrance, and Spill bay 1 which is attraction flow for the Cascades Island entrance.

Impact on unit priority: none

Impact on forebay/tailwater operation: none

Impact on spill: Spill will be finished for the season, but attraction flow will be reduced by 0.5 kcfs for the duration of this work.

Dates of impacts/repairs: 1 September 2020

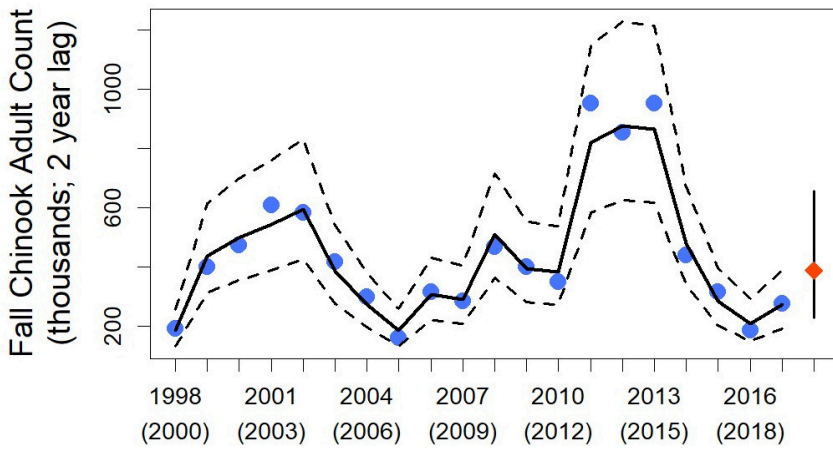
Length of time for repairs: 1 day

Analysis of potential impacts to fish

	10-year average for work period	total run 10-year average	% of run affected
Chinook	11,494	521,629*	0.0220
Coho	1,167	93,314	0.0125
Chum	0	126	0
Steelhead	2,336	233,821	0.0099
Lamprey	109	125,757**	0.0008

*Fall run Chinook

**8 year average



Chinook	See above
Coho	Forecast below average
Chum	No forecast
Steelhead	Forecast below average
Lamprey	Below average

*From NOAA

With no attraction spill, passage through spillway routes may be reduced. Fish that do approach the B-Branch and Cascade Island ladders will encounter fully functional ladders but may have to search longer for fishway entrances with no attraction water. Those fish may be exposed to increased sea lion predation. Stellar Sea Lion abundance for this time is ~16 animals, no California Sea Lions.

Summary statement - expected impacts on:

Downstream migrants Very minimal. There are no major annual downstream migration events on this date. Spill will have already ended and very few fish would pass the spillway through attraction flow releases.

Upstream migrants (including Bull Trout) With attraction flow from only one side of the spillway, fish in the area may be drawn to the opposite side of the spillway or delay, though both ladders will be fully operational. The delay could an increase in sea lion predation.

Lamprey None.

Comments from agencies

200813 FPOM minutes–

8.19. 20BON81 MOC Hydro-survey for Rock Removal – This hydro-survey has been done many times previously. The team has scheduled the survey for 01 September. It is usually a half day of work but the issue is always the HECP clearance procedure. Bay 1 will be open while bay 18 is closed and vice versa. Swank said that he noticed the impacts said “none” for lamprey, but impacts would be like the other upstream migrants. Hausmann said that the project typically lower flows for lamprey entrances and it is tricky to figure out what the impacts are for lamprey. Hausmann will update the lamprey impacts. Swank would like a reasonable explanation for the lamprey impacts written down, especially when the impact says none or minimal, to make sure lamprey were considered.

Emailed comments from ODFW:

ODFW supports the Corps decision to conduct rock surveys annually to satisfy their dam safety obligations even though there has been repeated concern regarding cost and funding reductions to CRS programs. It is greatly appreciated that this work is not planned to occur during the 2020 spill for fish passage season, and I hope that this can continue in the future.

I have provided comments (callout notes) that I feel require some consideration before this MOC is finalized. Please reconsider editing the sections with comments before finalizing. Additionally, it may be more cost effective if the Corps of Engineers includes learning from survey and physical rock removal work when practicable by 1) quantifying annual removals and 2) associating the relationship of actual and annual flow levels to quantifiable deposition amounts. This might help to better identify efficiencies and cost savings opportunities. In general, summary statements continue to overemphasize uncertain expectations of impacts. Though quantified using a reported value or value(s), the certainty of this prediction is affected by many factors including inter-annual variation, run-size, the number of days in the work period, just to name a few. Including an observed spread as an expected range (i.e., 20th and 80th percentile) might help alleviate some concern by simply including a reference to the level of uncertainty in the data set used to provide a point of central tendency (i.e., average). Additionally the characterization of benefits from alternative passage routes should not be underemphasized by run-size or number of individuals, but instead should retain the region's expectation of benefit compared to turbine passage routes. I have attempted to share some edits (track changes) that may help alleviate some of the concerns identified.

Final coordination results – the survey will go forward on 01 September.

After Action update – The hydro-survey was completed on 01 September. Enough quantity of rocks was found to start a removal contract.

Please email or call with questions or concerns.

Thank you,
Erin

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