

OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE- 17TDA21 Spillway Hydro-Survey

COORDINATION DATE- July 17, 2017

PROJECT- TDA

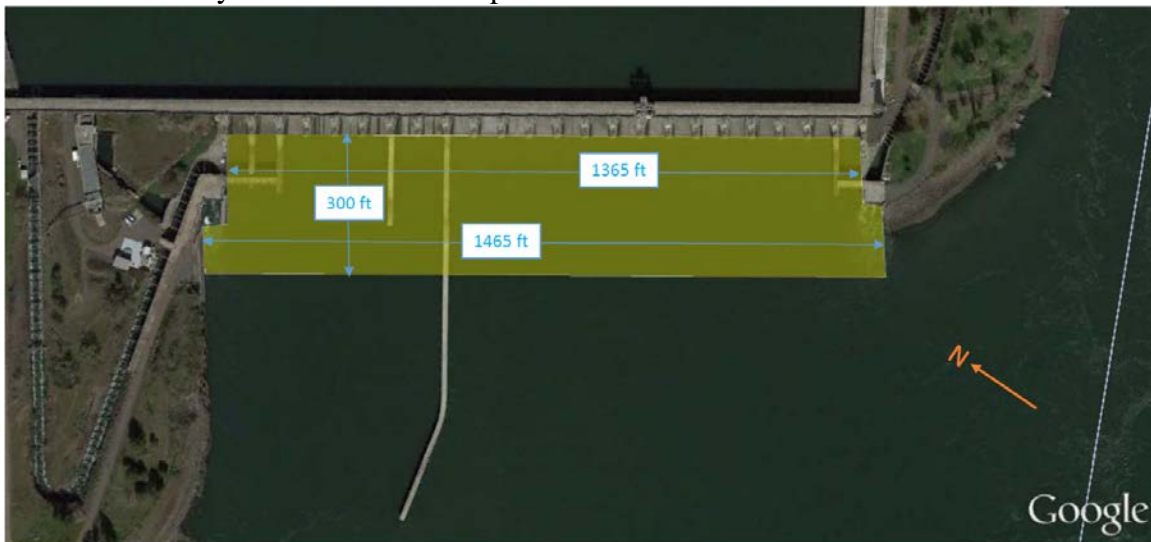
RESPONSE DATE- July 31, 2017

Description of the problem - In DDR #35, The Dalles Lock and Dam, Bay 8/9 Spillwall dated May 2013 - spillway hydro-surveys are required when spill south of the wall occurs for 100 hours or more. This trigger was reached in 2017. The areas of concern are:

- 1.) Along the south side of the 8/9 wall where erosion was noted between the 2011 and 2010 hydro survey.
- 2.) Downstream end of the 8/9 wall (where the apron drops off dramatically). Changes were noted between 2011 and 2010.
- 3.) Erosion of the spillway shelf north of the 8/9 wall. Some minor changes occurred between 2011 and 2010.

High volumes of spill also occurred in 2011.

The hydro-survey needs to capture as much of the area south of the 8/9 spill wall but detailed coverage in around the south spillway fish ladder is not critical. Real time monitoring of the survey data north of the wall might identify concerns with erosion near the north fishway. If concerns are identified, the flow through the north fish ladder would need to be reduced by 50% to improve the hydro-survey results along the north shore. The survey area is noted in the picture below.



Type of outage required – The survey team will start the survey with full flow from the north fish ladder but they may need to reduce the flow by 50%. The south entrance will remain in criteria.

Impact on facility operation (FPP deviations) – The north ladder entrance will not be in criteria during the survey if the flow is reduced.

Impact on unit priority – None.

Impact on forebay/tailwater operation – None.

Impact on spill – Spill season ends 31 August and therefore will be closed.

Dates of impacts/repairs – 27 September

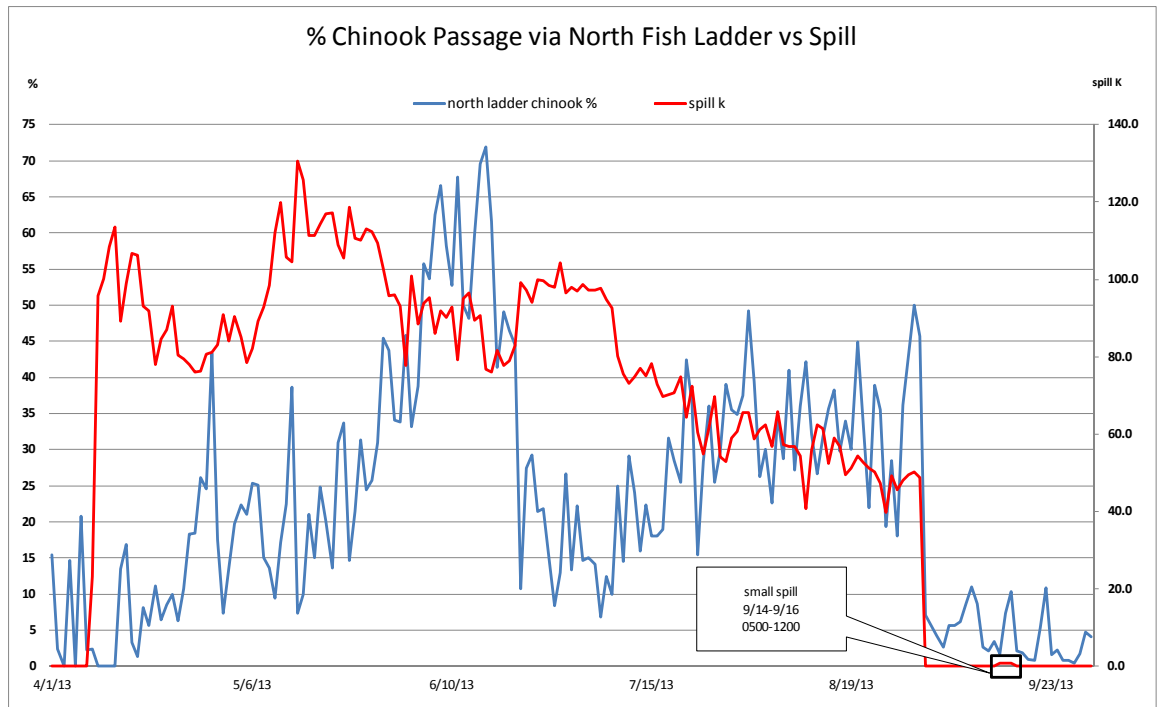
Length of time for repairs - 12:00pm – 5:00pm (~5 hours)

Analysis of potential impacts to fish

- 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. Table 1 is the 10 year average for the north ladder fish counts from 24-28 September. September 27 is the proposed date and is highlighted yellow.

Date	All Chinook	Adult Chinook	Jack Chinook	All Steelhead	Clipped Steelhead	Unclipped Steelhead	All Coho	Adult Coho	Jack Coho	Sockeye	Chum	Pink
24-Sep	267	202	65	226	162	63	67	62	5	0	0	0
25-Sep	354	238	116	226	165	61	109	100	9	0	0	1
26-Sep	321	240	81	188	140	48	109	103	7	0	0	0
27-Sep	342	246	97	166	122	44	101	97	5	0	0	1
28-Sep	332	227	105	165	117	48	106	102	4	0	0	0

- According to the NOAA prediction, the run size is expected to be lower than the 10 year average for Fall Chinook and Coho.
- Since the majority of fish use the east fish ladder, the expected delay for the overall run size is expected to be small. The graph below shows that 5% of Chinook pass via the north ladder after spill has ended. In addition, any fish in the ladder before noon will still be able to pass.



- The timing of this work is during the Fall Chinook and Coho run. There is expected to be a delay of fish entering the north ladder.

Summary statement - expected impacts on:

Downstream migrants – None; spill season will already have ended.

Upstream migrants (including Bull Trout) – There will be delay in adult salmon finding the entrance to the north fish ladder. Very few Bull Trout have been observed near The Dalles Dam and no reported counts at the north count station so the impacts are expected to be minimal.

Lamprey – Similar to adult salmonids, lamprey may be delayed in finding the entrance to the north ladder.

Comments from agencies

-----Original Message-----

From: Gary Fredricks - NOAA Federal [mailto:gary.fredricks@noaa.gov]
 Sent: Monday, July 24, 2017 12:24 PM
 To: Kovalchuk, Erin H CIV USARMY CENWP (US)
 <Erin.H.Kovalchuk@usace.army.mil>
 Cc: Hausmann, Benjamin J CIV USARMY CENWP (US)
 <Benjamin.J.Hausmann@usace.army.mil>
 Subject: [Non-DoD Source] Re: FPOM: Official Coordination 17BON49 MOC Spillway Hydro Survey and 17TDA21 MOC Spillway Hydro Survey

Erin, No issues with 17TDA21 but I have a couple of questions on 17BON49. Will the spill basin and repair surveys be done at the same time? If not, how long will FV 4-4 and 4-5 (or is it 4-3 and 4-4?) be

down for the repair survey? The MOC should clarify these points.
Thanks, Gary

Final coordination results – Comments were received by NOAA. The MOC will go forward as coordinated.

After Action update – The survey was completed on 27 September 2017 as coordinated. The north fish ladder remained in service throughout the survey.

Please email or call with questions or concerns.

Thank you,

Erin

Erin Kovalchuk
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Columbia River Coordination Biologist
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