OFFICIAL MEMO of COORDINATION (MOC) FOR NON-ROUTINE OPERATIONS & MAINTENANCE

COORDINATION TITLE- 20 IHR 08 Floating Guidewall Cable Replacement
COORDINATION DATE- November 16, 2020
PROJECT- Ice Harbor Lock and Dam
RESPONSE DATE- November 30, 2020

Description of problem. The Corps needs to complete replacement of the cables at Ice Harbor floating navigation lock guidewall that began last fiscal year. Work was interrupted by the contractor due to growing concerns over the COVID-19 pandemic. Dredging would need to be conducted to locate two anchor blocks and all four of the anchor cables will be replaced. The Corps plans to replace these cables December 2020 through March 2021. Divers would attach the new cables to the anchors.

The cables are attached to two anchor blocks in the forebay of the dam. One of the anchor blocks is buried under approximately 20 feet of accumulated sediment. The Corps proposes to remove the accumulated sediment by hydraulically dredging the material using a 6-inch intake suction valve and disposing the material in an in-water contained area located in the north side of the forebay. Approximately 2,000 cubic yards of sediment would be moved. Dredging is scheduled to occur while the north shore fishway is be out of operation for winter maintenance in February. Movement of sediments within the forebay could potentially affect fish present in the area near the dam. Dive work to replace cables will occur during the Navigation Lock outage in March and will require a spill outage.

1. Type of outage required (relate to deviation from FPP). No spill during March 6-20, 2021.

2. Dates of impacts/repairs. Dredging: February 1-28, 2021 during the in-water work window. Attachment of cables immediately following dredging in March 6 to 20, 2021 during the navigation outage. No spill can occur during dive work.

3. Length of time for repairs. Dredging will take place over three weeks between December 15 through February 28, 2021 and attachment of cables immediately following dredging. Dredging could occur both day and night. Contractor is targeting February for dredging when the fish ladder is anticipated to be closed.

4. Impact on fish facility operation *(fishway, JFF, etc.)***.** None. North shore fishway will be open as usual December, January, and March.

5. Impact on project operations (*unit priority, forebay/tailwater operation and/or spill*). Spillway would be closed March 6 to 20 to allow for cable replacement. A barge would be staged in the forebay during cable replacement activities. No spill can occur during dive work.

6. Analysis of potential impacts to fish. Include:

a. 10-year average passage of adults and juveniles of each affected listed species during dates of impact.

No fish counts are available for December through March at Ice Harbor Dam. Steelhead counted January of 2014 totaled 222 adults. March steelhead counts collected 2013 and 2018 averaged 1,098 for the month, representing 0.73% of the migration for steelhead that passed Ice Harbor Dam.

Smolt index: There is no smolt data for Ice Harbor Dam for December through March except for PIT-tag detections. Numbers of smolts during this timeframe is anticipated to be low.

b. Statement about the current year's run (e.g., higher or lower than 10-year average).

As of October 2020, a total of 56,210 steelhead have passed Ice Harbor Dam. This is approximately 48% lower than the 10 -year average (117,069).

c. Estimated exposure to impact of adults and/or juveniles, as appropriate, by species (number or percentage of 10-year average that occurs during dates of impact).

Both bulltrout and steelhead utilize Ice Harbor Dam fish passages and can rest/migrate through the forebay, located on the upstream side of the dam. The north shore fishway will be closed during the dredging work therefore few migrants should be exposed to disturbed sediments.

d. Type of impact to adults and/or juveniles, as appropriate, by species (e.g., increased delay, exposure to predation, exposure to a route of higher injury/mortality rate, exposure to higher TDG, etc.).

Fish in the forebay may be disturbed by the increased turbidity and noise caused by the dredging activities.

e. Final judgment on scale of expected impacts (negligible, minor, significant) on:

i. Downstream migrants. Negligible.

ii. Upstream migrants (including Bull Trout). Negligible.

iii. Lamprey. Negligible impact to adults. Ammocetes may be located within the forebay sediment and if there, would be moved with the sediment. However, the numbers are expected to be low because of the anoxic environment within the forebay. No survey has been conducted to locate the presence or absence of ammocetes at Ice Harbor Dam. Sediment sampling was conducted for this effort and no ammocetes were observed in the sample. The closest known ammocetes are located within the deltas of the major tributaries such as the Palouse River and Tucannon River, approximately 50 miles and 52 miles upstream respectively.

7. Previous Comments from agencies (2019).

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-----Original Message-----
From: Josie Thompson - NOAA Federal Subject: [Non-DoD Source] Re: 19 IHR 21 MOC
Guidewall Anchor Cables

Hello Chris and Kristen,

Can we get a map or two before the FPOM meeting on Thursday which includes the
location of the suction dredging site(s), how that equipment will be deployed, and
also one including the location of the cables that are being replaced in reference
to the fish ladder entrances before the FPOM meeting on Thursday?  I have a map of
the dredging disposal locations already, but I am not finding anything in addition
to this.

Thank you!

Josie
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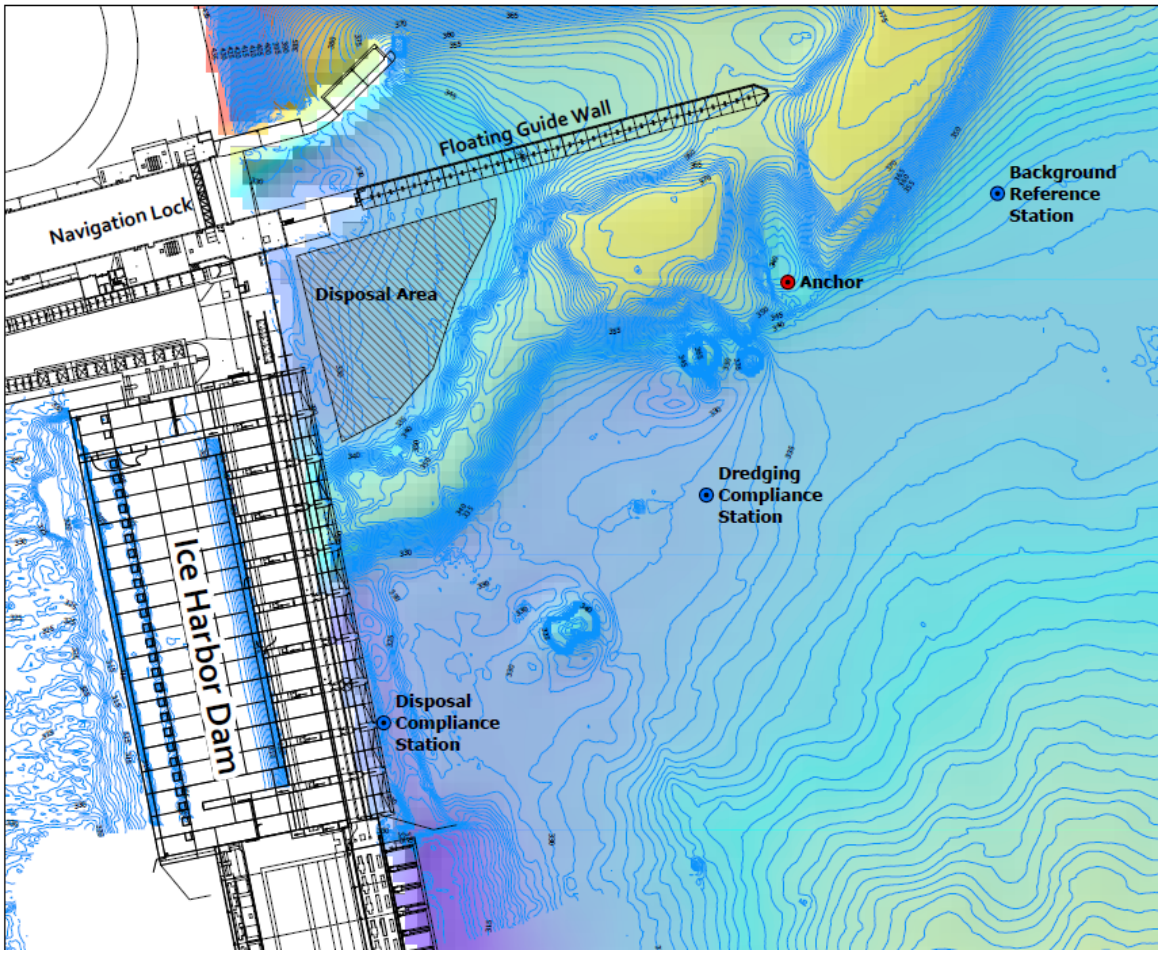
-----Original Message-----
From: Shacochis-Brown, Kristen M CIV CENWW CENWD (US)
Sent: Tuesday, December 10, 2019 2:38 PM
To: Josie Thompson - NOAA Federal
Subject: FW: [Non-DoD Source] Re: 19 IHR 21 MOC Guidewall Anchor Cables

Per your request, here is the diagram you requested.

Let me know if you have any questions.

Kristen Shacochis-Brown P.W.S., V.C.W.D.



-----Original Message-----
From: Laurie Porter [mailto:porl@critfc.org]
Sent: Tuesday, December 10, 2019 2:22 PM
To: Peery, Christopher A CIV USARMY CENWW (USA)
Subject: [Non-DoD Source] RE: 19 IHR 21 MOC Guidewall Anchor Cables

Chris,

Is there an opportunity to samples the sediments for lamprey during this operation?

Laurie Porter

-----Original Message-----
From: Peery, Christopher A CIV USARMY CENWW (USA)
Sent: Tuesday, December 10, 2019 2:52 PM
To: Laurie Porter <porl@critfc.org>
Cc: Shacochis-Brown, Kristen M CIV CENWW CENWD (US) <Kristen.M.Shacochis-Brown@usace.army.mil>
Subject: RE: 19 IHR 21 MOC Guidewall Anchor Cables

Laurie,

As noted in the MOC, the sediments have been sampled and no lamprey were observed so likely little benefit from re-sampling during the operation.

Chris

-----Original Message-----
From: Peery, Christopher A CIV USARMY CENWW (USA) <Christopher.A.Peery@usace.army.mil>
Sent: Wednesday, December 11, 2019 9:45 AM
To: Laurie Porter <porl@critfc.org>
Cc: Shacochis-Brown, Kristen M CIV CENWW CENWD (US) <Kristen.M.Shacochis-Brown@usace.army.mil>
Subject: RE: 19 IHR 21 MOC Guidewall Anchor Cables

Laurie,

Just to expand on your question, the plan for this work is to pump the sediments directly from the cable anchor to the in-water deposit area without raising them to the surface. To conduct sampling would require a significant change in operation to bring sediments to the surface where they could be handled. The logistics of this would likely be fatal to any larval lamprey if there were any present. Sampling of dredge material has been discussed multiple times in the past, primarily with the lamprey technical work group and it has been considered to be infeasible in general because of this. Also, larval lamprey have, to my knowledge, not been observed in sediments as deep as 100 ft as involved in this situation. The chance that this work will impact lamprey seem small. The FPOM MOC is intended to address any potential effect of the work for fish passage. Please let me know if you have any more questions.

Thanks,

Chris

-----Original Message-----
From: Laurie Porter [mailto:porl@critfc.org]
Sent: Wednesday, December 11, 2019 10:59 AM
To: Peery, Christopher A CIV USARMY CENWW (USA) <Christopher.A.Peery@usace.army.mil>
Cc: Shacochis-Brown, Kristen M CIV CENWW CENWD (US) <Kristen.M.Shacochis-Brown@usace.army.mil>
Subject: [Non-DoD Source] RE: 19 IHR 21 MOC Guidewall Anchor Cables

Hi Chris,

Thanks for the clarification, I did not realize the sediments were not being brought to the surface. I agree with the conclusions below.

Laurie

8. Final coordination results.

9. After Action update.

Please email or call with questions or concerns.
Thank you,

Kristen Shacochis-Brown
kristen.m.shacochis-brown@usace.army.mil