

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

**COORDINATION TITLE** - 18BON01 Fish Unit Dredging at PH2

**COORDINATION DATE** - 04 January 2018

**PROJECT** – Bonneville Dam

**RESPONSE DATE** - 11 January 2018 (FPOM Meeting).

**Description of the problem**

Results from a recent hydro survey indicate large quantities of sediment immediately in front of the fish units at PH2. Buildup of sand and other fine materials in front of the fish units have caused diffuser pits to become filled, entrance gates to not meet submergence criteria, and have forced the project to operate under a single fish unit operation at times. The project needs to dredge the sediment to prevent problems to the AWS system. A contractor will be on site dredging near the Bradford Island fishway exit. The project would like to modify the contract to add the fish unit dredging as well.

**Type of outage required**

This work requires a dual outage of the fish units.

**Impact on facility operation**

There will be no AWS water supplied to WA Shore fish ladder during this outage.

**Impact on unit priority**

This operation will have no effect on unit priority as the fish units serve as the water supply for the WA Shore fish ladder AWS.

**Impact on forebay/tailwater operation**

No anticipated impacts to forebay/tailwater operations.

**Impact on spill**

No anticipated impacts to spill.

**Dates of impacts/repairs**

A dual fish unit outage would be required for two days in the last week of January (29 January – 02 February, 2018).

**Length of time for repairs**

Two days will be requested for this outage. It is understood that should the dredging take less time, the fish units would become available sooner.

## 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.

Bonneville Washington Shore						
Date	Chinook	Steelhead	Coho	Sockeye	Chum	Pink
1/29	0	7	0	0	0	0
1/30	0	12	0	0	0	0
1/31	0	9	0	0	0	0
2/1	0	12	0	0	0	0
2/2	0	12	0	0	0	0

Minimal impacts are anticipated for both adults and juvenile salmonids, lamprey, and bull trout.

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

We are below the 10 year average for all species as of 04 January.

3. Estimated exposure to impact by species and age class (i.e., number or percentage of run exposed to an impact by the action).

A low percentage of the total run for all species is anticipated to be affected by the proposed outage and work due to the timing. Low numbers of fish are passing towards the end of January and beginning of February.

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.)

A number of delayed salmonids may experience predation from pinnipeds as their temporal presence is almost year round at this point at Bonneville. Pinnipeds are observed in all but summer months generally.

## Summary statement

### **Downstream migrants**

Low numbers of out-migrating juveniles are observed during the proposed dates of this outage; little to no impacts are anticipated.

### **Upstream migrants (including Bull Trout)**

Minimal impacts to upstream migrating adults are anticipated from bringing the Washington Shore fish units out of service in late January / early February (average 10 Steelhead per day). Some delay is to be expected due to little or no differential at the fishway entrance, however the exit will remain open (orifice flows). Some predation from pinnipeds is to be expected as well.

### **Lamprey**

Low numbers of lamprey are observed during the proposed dates of this outage; little to no impacts are anticipated. Based on sampling of the Bradford Island exit in 2016, there is reason to assume some level of larval lamprey presence. However, the fish unit dredge area is a much higher velocity area and the sediments in the area have accumulated faster and have been present for a much shorter duration than the previously sampled Bradford site. The majority of the material being removed from the fish unit area has accumulated there since 2016. As such, the impact to larval lamprey is unknown.

### **Comments from agencies**

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

From: Wang, Christina [mailto:christina\_wang@fws.gov]  
Sent: Monday, January 08, 2018 9:47 PM  
To: Bob Rose <rosb@yakamafish-nsn.gov>  
Cc: Ralph Lampman <lamr@yakamafish-nsn.gov>; Kovalchuk, Erin H CIV USARMY CENWP (US) <Erin.H.Kovalchuk@usace.army.mil>; Subject: [EXTERNAL] Re: Fwd: FPOM: Official Coordination 18BON01 MOC Fish Unit Dredging at PH2

Hi All

David Swank from my office should be at the meeting Thursday. I will talk with him prior to regarding sampling data that we already have and after to see what we can do to assist. The dredge group can certainly weigh in as well.

Christina

On Mon, Jan 8, 2018 at 5:42 PM, Bob Rose <rosb@yakamafish-nsn.gov <mailto:rosb@yakamafish-nsn.gov> > wrote:

Thanks for including me on this note.

Tom Lorz, Sean Tackley, or Dave s. could either of you please ask at FPOM how the determination of little to no impact was made.

I will not pass judgement of the decision at this time, but can't help think the consequences are rather tough on the poor little guys involved. Any chance USFWS can get there first with their unit to get a guesstimate of occupancy?

Thanks.

On Jan 8, 2018 3:14 PM, "Ralph Lampman" <lamr@yakamafish-nsn.gov <mailto:lamr@yakamafish-nsn.gov> > wrote:

Hi Erin,

I'm passing on Dave Statler's comments here. I echo his comments.

As for impacts, it's true that adult lamprey are not migrating very much right now, but larval lamprey and juvenile (macrophthalmia, smolt) lamprey are active and in the river system (& within the dam facilities) year round so we should be sure to consider those impacts associated with this dredging activities.

Thank you,

Ralph Lampman  
COLUMBIA RIVER | Honor. Protect. Restore

Yakama Nation FRMP, Pacific Lamprey Project

lamr@yakamafish-nsn.gov <mailto:lamr@yakamafish-nsn.gov>  
509-388-3871 <tel:(509)%20388-3871>

<Blockedhttps://dl.dropbox.com/u/23266283/Yakama%20Fisheries%20Logo\_Final\_Color.png>

----- Forwarded message -----

From: Dave Statler <daves@nezperce.org  
<mailto:daves@nezperce.org> >  
Date: Mon, Jan 8, 2018 at 11:22 AM  
Subject: FW: FPOM: Official Coordination 18BON01 MOC Fish  
Unit Dredging at PH2  
To: "Wang, Christina" <christina\_wang@fws.gov  
<mailto:christina\_wang@fws.gov> >  
Cc: "Tackley, Sean C CIV USARMY CENWP (US)"  
<Sean.C.Tackley@usace.army.mil <mailto:Sean.C.Tackley@usace.army.mil>  
>, Bob Rose <rosb@yakamafish-nsn.gov <mailto:rosb@yakamafish-nsn.gov>  
>, Aaron Jackson <AaronJackson@ctuir.org  
<mailto:AaronJackson@ctuir.org> >, Ralph Lampman <lamr@yakamafish-  
nsn.gov <mailto:lamr@yakamafish-nsn.gov> >, Brian McIlraith  
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<raymonde@nezperce.org <mailto:raymonde@nezperce.org> >, "Lorz, Tom"  
<lort@critfc.org <mailto:lort@critfc.org> >

Christina and all:

Do not know whether you have seen the attached Corps MOC or not.

The notice concerns planned dredging near the BON PH2 due to large quantities of sediment immediately in front of the fish units at PH2. The notice indicates that buildup of sand and other fine

materials in front of the fish units have caused diffuser pits to become filled.

The following statement was made in the subject notice:

"Lamprey  
Low numbers of lamprey are observed during the proposed dates of this outage; little to no impacts are anticipated."

It appears that the above statement was made based on the observance of lamprey migrating past the dam this time of year.

Based on lamprey life history, habitat preferences and the knowledge that larval lamprey occur in Bonneville pool, consideration and focus should be given to potential impact to larval lamprey in the sediments to be removed, rather than migrating juveniles (macrophthalmia).

This issue is slated to be discussed at this Thursday's FPOM meeting.

Should the LTWG dredging subgroup take a look at this? To me, this is a classic example of missing the point of considering impacts to lamprey larvae that may be "imbedded" in the sediments. In that regard, there appears to be no basis for the statement that "little or no impacts" to lamprey are anticipated.

Thanks.

Dave Statler

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

From: Bissell, Brian M CIV USARMY CENWP (US)  
Sent: Monday, January 08, 2018 11:59 AM  
To: Rerecich, Jonathan G CIV USARMY CENWP (US)  
<Jonathan.G.Rerecich@usace.army.mil>  
Cc: Kovalchuk, Erin H CIV USARMY CENWP (US)  
<Erin.H.Kovalchuk@usace.army.mil>  
Subject: RE: FPOM: Official Coordination 18BON01 MOC Fish Unit Dredging at PH2

Jon,

The Cascades Island fishway entrance will be the only FPP compliant route during that time. 0.5' of attraction flow will remain out of spillbay 1 as per normal wintertime operations unless the region requests additional spill. BI dredging is anticipated to start 01 February so I would imagine the fish unit dredging would occur between 29-31 January. Attached is the images tech staff just provided me.

Cheers,  
Brian

Brian Bissell, Fish Biologist

U.S. Army Corps of Engineers  
Bonneville Lock & Dam  
541-374-7984 (Office)

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

From: Rerecich, Jonathan G CIV USARMY CENWP (US)  
Sent: Monday, January 08, 2018 11:36 AM  
To: Kovalchuk, Erin H CIV USARMY CENWP (US)  
<Erin.H.Kovalchuk@usace.army.mil>; Bissell, Brian M CIV USARMY CENWP  
(US) <Brian.M.Bissell@usace.army.mil>  
Subject: RE: FPOM: Official Coordination 18BON01 MOC Fish Unit Dredging  
at PH2

Is the Cascades Island entrance in normal operation during fish unit  
dredging and is that the only entrance in FPP operation at the project?

Folks may request some spill to attract fish to an operating entrance  
to minimize the potential predation or delay.

Do you have any hydro survey images you can send me of the fish unit  
intakes?

Thank you.

Jon

**Final coordination results – FPOM concurred at the January 2018 meeting.**

**After Action update – This action was completed as scheduled.**

Please email or call with questions or concerns.

Thank you,  
Brian

Brian Bissell, Fish Biologist  
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