

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

COORDINATION TITLE- 20BON15 BI Serpentine Overflow Slot Screen Removal

COORDINATION DATE- May 19, 2020

PROJECT- Bonneville Dam

RESPONSE DATE- May 20, 2020

Description of the problem

Expanded metal screens installed on the BI serpentine overflow slot during the 2019-20 IWW period are clogging too frequently to maintain proper operation of the overflow slots. The screens were installed to avoid lamprey mortalities in the overflow section by preventing lamprey entry to the slots. Bonneville would like to reduce flow for approximately 2 hours by pinching FV 3-9 and the BI fishway exit to allow for the removal of the screens. We aim to keep 3-4 feet of water in the section, the work will be done from a crane.

Type of outage required

Flows would be reduced through FV 3-9 and BI exit for up to 2 hours from 1300-1500 (when daily fish passage is typically at its lowest) on the 20th or 21st of May, depending on crew availability.

Impact on facility operation (FPP deviations) – FV 3-9 and BI exit would have reduced flows. Water over the BI weir will be below 1’.

Impact on unit priority - none

Impact on forebay/tailwater operation - none

Impact on spill - none

Dates of impacts/repairs – 5/20 or 5/21/2020

Length of time for repairs – Up to two hours

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;

Date	10 YR Chinook	10YR Steelhead
5/20	1974	43
5/21	2079	49

*It is worth noting that the BI ladder passes only about 30% of the total facility Chinook adults. The average up to the 18th of May so far is 26.6%. From Columbia River DART.

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

This year's run is well below the 10-year average.

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

The percentage of the run impacted by this action is very small (less than 0.005%).

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.);

Reducing flow through the exit will delay upstream migrating fish until the work is finished (several hours). Fish are not expected to move back down the ladder en mass. Flow through lower ladder diffusers is expected to make up for the lost water and keep entrance differentials in criteria.

Summary statement - expected impacts on:

Downstream migrants – this action would not affect downstream migrants.

Upstream migrants (including Bull Trout) – this action could delay migrating salmonids by several hours.

Lamprey – Lamprey that would have exited the BI serpentine during this time would be delayed. Passage of lamprey at Bon is currently at ~6 per day, so the impact is deemed minimal.

Comments from agencies

Yakama:

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

From: Ralph Lampman [mailto:lamr@yakamafish-nsn.gov
<mailto:lamr@yakamafish-nsn.gov>]
Sent: Tuesday, May 19, 2020 10:34 PM
To: Derugin, Andrew G CIV (USA) <Andrew.G.Derugin@usace.army.mil
<mailto:Andrew.G.Derugin@usace.army.mil> >
Cc: Kovalchuk, Erin H CIV USARMY CENWP (US)
<Erin.H.Kovalchuk@usace.army.mil
<mailto:Erin.H.Kovalchuk@usace.army.mil> >
Subject: [Non-DoD Source] Re: FPOM: Official Coordination 20BON15
MOC BI Serpentine Overflow Slot Screen Removal

Hi Andrew,
(cc: Erin)

What is the mesh size (opening) for those screens installed?

Ralph Lampman
COLUMBIA RIVER| Honor. Protect. Restore

Yakama Nation FRMP, Pacific Lamprey Project

Response:

On Wed, May 20, 2020 at 7:04 AM Derugin, Andrew G CIV (USA)
<Andrew.G.Derugin@usace.army.mil
<mailto:Andrew.G.Derugin@usace.army.mil> > wrote:

Its flattened expanded metal, I believe the openings are 0.3 x 0.9". Very lamprey proof, but catches every little leaf and blade of grass.

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

From: Ralph Lampman [mailto:lamr@yakamafish-nsn.gov]
Sent: Wednesday, May 20, 2020 8:58 AM
To: Derugin, Andrew G CIV (USA) <Andrew.G.Derugin@usace.army.mil>
Cc: Kovalchuk, Erin H CIV USARMY CENWP (US)
<Erin.H.Kovalchuk@usace.army.mil>
Subject: Re: [Non-DoD Source] Re: FPOM: Official Coordination 20BON15
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maybe it could be larger (maximum size possible) for the future?

Ralph Lampman

Final coordination results – This action went forward as planned.

After Action update - This work was completed as planned on Wednesday, 20 May. Water level was reduced from 1300 to 1440. The serpentine section held several feet of water throughout the work and adult salmonids were observed holding in the section. Screens were removed from 4 slots, two slots underneath the platform could not be reached safely. BON is exploring options for removing those, this will likely be done by removing some of the grating and working from the platform.

Please email or call with questions or concerns.

Thank you,
Erin

Erin Kovalchuk
NWP Operations Division Fishery Section
Columbia River Coordination Biologist
Erin.H.Kovalchuk@usace.army.mil

And

Andrew Derugin

Fish Biologist
Bonneville Dam
Andrew.G.Derugin@usace.army.mil