

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

COORDINATION TITLE- 21 TDA 09 MOC Fish Unit Brush Repair

COORDINATION DATE- 9 September 2021

PROJECT- The Dalles Lock & Dam

RESPONSE DATE- 23 September 2021

Description of the problem - The Dalles fish units F1 and F2 provide auxiliary water to the east fish ladder. They have been experiencing excessive brush wear which could result in damaging failure. Brush failure could result in extensive outage. They are not expected to make it to the end of this adult fish passage season. Repair will be completed as soon as possible.

Type of outage required – Fish Units 1 and 2. One unit at a time.

Impact on facility operation – F1 outage will occur Sep 28 at 0700 0800-1400. F2 will occur Sep 29 same times. The AWS backup system will be opened immediately after each unit is off. Entrance flow will continue with one fish unit during the transition. Transition time approximately 15 minutes for open and closure each day. Total AWS flow will be reduced from 5kcfs to 2.5kcfs during that time. UPDATE: on 9/9/21 FPOM recommends planning for a 0800 start time.

Impact on unit priority - None

Impact on forebay/tailwater operation - None

Impact on spill – None.

Dates of impacts/repairs – 28 and 29 September.

Length of time for repairs – approx. 7 hours per unit, includes clearance procedures.

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;

Refer to DART or Fish Passage Center

http://www.cbr.washington.edu/dart/query/adult_daily

Table 1. Potentially impacted adults on Sept 28 and 29 (10yr avg Fish Passage Center):

Species	Average passing 9/28	Average passing 9/29
Fall Chinook	4485	3844
Steelhead	836	189
Unclipped Steelhead	481	681
Coho	911	806
Sockeye	0	0

Juveniles: Very few juveniles pass the adult fishladders, and it is the tail end of the juvenile passage season.

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

The NOAA forecast for adult Fall Chinook run is less than the 10 year average and the Coho run is forecast to exceed the 10 year average. Presently chinook are tracking on the 10 year and Coho about three times the 10 year average.

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

No impact to juvenile outmigrants, refer to table 1 for potential adult exposure.

- 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.);

Potential adult passage delay could result in the 15 minute transition for open and closure AWS backup system valve. However entrance flow will not stop during this time, it will be reduced by 50%. Delay for this change is unknown.

Summary statement – Minimal passage impact is expected. The AWS will be used to keep fishway in FPP criteria. Risk of long term failure outage is high. Work needs to move forward ASAP.

Downstream migrants – No expected impacts to downstream migrants.

Upstream migrants (including Bull Trout)- unknown. In sufficient bull trout information available. Likely similar to adult salmon.

Lamprey – No impacts expected. Most adult lamprey passage done for season.

Comments from agencies

FPOM on 9/9/19:

Cordie walked through this new MOC, brushes are wearing much faster than expected. Will not last until the end of fish passage season. Comments due 23 September. Bellerud asked if they are taking extended measures to complete work as soon as possible like overtime or working weekends. Cordie responded that it shouldn't be necessary, only 5 hours for each brush replacement. Van Dyke asked if they can't complete the work will they quit for the day or continue working? They will continue working. Total flow reduction time will be about 30 minutes each day as they switch to the AWS and back (15 min + 15 min). WDFW support delaying start time until 0900 to allow fish to enter the ladder and move up. Van Dyke no comments. Swank asked what is causing the excessive wear? Engineers have been chasing it for a couple of years but have not yet figured it out. Is the repair just replacing parts? Do they have spare parts on hand? Yes, spare brushes on hand for replacement. Bellerud recommends 0800 start time, seconded by Morrill (WDFW). **FPOM recommends planning for a 0800 start time.**

From: Cordie, Robert P CIV (USA) <Robert.P.Cordie@usace.army.mil>
Sent: Wednesday, September 15, 2021 6:49 AM
To: McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>; Tom Lorz <lorz@critfc.org>
Subject: RE: FPOM Official Coordination: 21 TDA 09 MOC Fish Unit Brush Repair

I talked to maint chief about week or 2 delay. He felt its too risky. He's already uncomfortable with the planned dates not being soon enough.

We'll make sure the switch from fish unit off to AWS open happens without delay.

From: McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>
Sent: Tuesday, September 14, 2021 4:26 PM
To: Tom Lorz <lorz@critfc.org>
Cc: Cordie, Robert P CIV (USA) <Robert.P.Cordie@usace.army.mil>
Subject: RE: FPOM Official Coordination: 21 TDA 09 MOC Fish Unit Brush Repair

Tom,

It is my understanding from talking with Cordie that there is potential for turbine failure at an unknown time. That is why they would like to complete the work ASAP.

Bob, can you confirm this work should not be delayed until October due to the potential for a FU failure?

Nathan

From: Tom Lorz <lorz@critfc.org>
Sent: Tuesday, September 14, 2021 1:36 PM
To: McClain, Nathan A CIV USARMY CENWP (USA)

<Nathan.A.McClain@usace.army.mil>

Subject: [Non-DoD Source] Re: FPOM Official Coordination: 21 TDA 09 MOC Fish Unit Brush Repair

Is there anyway to push this back into October, we can still have large numbers of Chinook and this year maybe coho passing? Also need to check when the tribal fisheries is planned. People can get touchy if we are messing with the ladders during fish seasons.

thanks

Tom Lorz
CRITFC

Final coordination results

The Corps will proceed with the work as detailed above due to the risk to fish units.

After Action update

Fish unit outages were according to plan. Each unit out just after 0800 – 1300 on separate days. Brushes were successfully replaced. AWS was opened during the outage. Flow reduction to single fish unit lasted ~20minutes per change.

Please email or call with questions or concerns.

Thank you,

Nathan McClain
NWP Operations Division Fishery Section (acting)
Columbia River Coordination Biologist
Nathan.A.McClain@usace.army.mil

Robert Cordie
Supervisory Fish Biologist
The Dalles Lock & Dam