

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

COORDINATION TITLE- Gatewell 18-1 Juvenile Salmonids

COORDINATION DATE- 6/1/20

PROJECT- The Dalles Dam

RESPONSE DATE- 6/8/20

Description of the problem

During routine gatewell inspections around 40 juvenile salmonids were observed on the surface of gatewell 18-1. This was noticed for approximately a week. The juveniles appeared to be trying to find a way out. For unknown reason this was on the only gatewell with this number of juveniles accumulating. Reviewing data from 2005 PNNL study, it is possible that opening 18-1 gate instead of 18-2 could intercept juveniles more efficiently, due to higher flow velocities going into 18-1 turbine intake. This action will still maintain an operating turbine unit under an open sluiceway.

Type of outage required

Impact on facility operation (FPP deviations) - Changing open sluiceway gate from 18-2 to 18-1.

Impact on unit priority - None

Impact on forebay/tailwater operation - None

Impact on spill - None

Dates of impacts/repairs 5/30/20

Length of time for repairs

Unknown. Gatewells will be monitored daily after moving to 18-1 for any changes.

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;
<https://www.nwfsc.noaa.gov/research/divisions/fe/estuarine/oeip/g-forecast.cfm>
2. Statement about the current year's run (e.g., higher or lower than 10-year average): 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): When this was first noticed, John Day smolt passage percent was 59% yearling chinook, 25% steelhead, 6% juvenile

coho and 8% juvenile sockeye and 2% subyearling chinook. Per smolt monitor facility weekly passage report.

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.):expecting to improve conditions for juveniles

Summary statement - expected impacts on:

Downstream migrants

No expected negative affect. Sluicgate remains open over an operating turbine unit 18. Potential positive affect due to high flow rate under 18-1 vs 18-2

Upstream migrants (including Bull Trout)

No effect to upstream passage expected

Lamprey

No effect to lamprey expected

Comments from agencies

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

From: Tom Lorz [mailto:lorz@critfc.org]

Sent: Tuesday, June 02, 2020 8:48 AM

To: Kovalchuk, Erin H CIV USARMY CENWP (US)

<Erin.H.Kovalchuk@usace.army.mil>

Subject: [Non-DoD Source] Re: FPOM: Official Coordination 20TDA03 MOC gateway 18.1

I can go along with this, unclear to me how much better 18-1 is vs 18-2 for sluiceway guidance. Do we have knowledge what the reduction if any sluiceway usage would be making this change, ie we have a few less fish in the gateway but have a larger reduction in sluiceway usage? I think this is fine but shockingly do not remember the finer points of the 2005 report, and have not been in the office to get my hands on it.

Response:

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

From: Cordie, Robert P CIV (USA)

Sent: Tuesday, June 02, 2020 9:06 AM

To: Kovalchuk, Erin H CIV USARMY CENWP (US)

<Erin.H.Kovalchuk@usace.army.mil>; Tom Lorz <lorz@critfc.org>

Subject: RE: FPOM: Official Coordination 20TDA03 MOC gateway 18.1

Here's the report. It does not provide definitive information on which of the 3 gates per unit are best for fish. However, given the hydraulic data showing that slot 1 has the most flow and that there is a benefit to having an operating unit under an open sluicgate, we're thinking that moving to 18-1 was worth a shot. We may never know if it helped, but there is no indication that it will hurt.

Disclaimer; I would not recommend relying on Cordie to help remember something.



PNNL-15540 TDA
2005 Final Report.pdf

Final coordination results – This action will move forward as proposed.

After Action update

The switch was made to open sluiceway on 18-1. Since there is only about 2 hours of daylight making fish on the surface visible, there were only couple observations made afterwards. Anecdotally there seemed to be less fish, but there is no level of confidence that this action helped reduce fish entrainment. Monitoring will continue in future years.

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

Bob Cordie
Chief of Fisheries
The Dalles Dam