

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

COORDINATION TITLE- 16TDA05 *TDA-N winter outage*

COORDINATION DATE- May 19, 2016

PROJECT- The Dalles Dam

RESPONSE DATE- 30 June 2016

Description of the problem: As described in 15TDA04 (an updated 2016 MOC will be coming soon), TDA-E backup AWS construction requires the entire In Water Work Period (IWWP) for completion of phase 1. This leaves no time within the IWWP to dewater and complete maintenance on the north fishway. The north fishway has little expected work aside from routine inspection and preventative maintenance. Dewatering the north in November was originally coordinated through FPOM, however after further review of historic monthly fish passage numbers, overlapping 2 weeks in January has much less potential of passage impact.

Type of outage required North fish ladder dewatering

Impact on facility operation: There will be no operating fish ladder for two weeks in January. This deviates from FPP criteria.

Dates of impacts/repairs January 2 – 15, 2017.

Length of time for repairs 2 weeks

Expected impacts on fish passage

Only 1 year (2013) of data for overall salmonid passage at The Dalles for Jan 1-15 included, 4 Chinook, 48 steelhead and 0 Coho. These fish would not be able to pass with both ladders dewatered. The most recent 5 years (2004-2012) of Nov 15-30 data consisted of an average of 375 Chinook, 1,639 Steelhead and 66 Coho. These fish could theoretically all pass the east ladder.

The overall Nov passage far exceeds Jan (by 40X). Steelhead are the majority of salmonids seen in both Nov and Jan. A high proportion of late run steelhead, relative to early run, are likely overwintering according to recent radiotelemetry data. Further data suggests ~97% steelhead stop migration at Jan river temperatures of ~40F. Whereas late November steelhead are more likely to be actively migrating with river temps ~51F.

Additionally, dewatering fish salvage also needs to be considered when comparing Nov to Jan ladder dewatering. Fish handling is generally avoided if possible, but is unavoidable during ladder dewaterings. Relatively high numbers of fish will be expected to be salvaged in Nov compared to almost no fish in Jan. Nov dewatering in the past resulted in record high fish numbers and consequent mortalities. In addition, many large sturgeon (7-10') were found in the north ladder when dewatered early Dec 2015, resulting in stopping the dewatering process to prevent mortality. Nov dewatering has more potential of finding high total fish numbers than does Jan dewatering.

Given the available passage/behavior data and dewatering fish salvage concerns, Jan overlap is much better for fish than Nov for dewatering the north fish ladder.

Comments from agencies

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

From: Gary Fredricks - NOAA Federal [mailto:gary.fredricks@noaa.gov]

Sent: Monday, June 27, 2016 8:01 AM

To: Mackey, Tammy M NWP <Tammy.M.Mackey@usace.army.mil>
Cc: Cordie, Robert P NWP <Robert.P.Cordie@usace.army.mil>; Lorz, Tom <lort@critfc.org>
Subject: [EXTERNAL] Re: FPOM: Official Coordination - 16TDA05 dual ladder outage for winter maintenance UPDATED

Tammy et al., Thanks for the added detail. The salvage risk likely outweighs any dual outage passage risk. I agree with the January North Ladder outage. Thanks for coordinating this. Gary

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

From: Gary Fredricks - NOAA Federal [mailto:gary.fredricks@noaa.gov]
Sent: Thursday, June 23, 2016 10:16 AM
To: Cordie, Robert P NWP <Robert.P.Cordie@usace.army.mil>
Cc: Mackey, Tammy M NWP <Tammy.M.Mackey@usace.army.mil>; Trevor Conder - NOAA Federal <Trevor.Conder@noaa.gov>; Lorz, Tom <lort@critfc.org>
Subject: Re: [EXTERNAL] Re: FPOM: Official Coordination - 16TDA05 dual ladder outage for winter maintenance

The data say nothing specific about the reason you want to do this in January. From a passage standpoint, I would do this in November when there is a passage alternative available, but you bring up the valid point of ladder salvage and the risk that activity brings to fish already in the ladder. We know some steelhead camp out in the ladder this time of year. You see that in early December (a date obviously adjacent to the November period in question). In order for your salvage concern to outweigh the passage concern you need to state it in the MOC. In other words, you'll have to spoon feed us poor folks who don't get the wonderful job of walking up and down that air conditioned ladder every winter.

On Thu, Jun 23, 2016 at 9:42 AM, Cordie, Robert P NWP <Robert.P.Cordie@usace.army.mil <mailto:Robert.P.Cordie@usace.army.mil> > wrote:
Thought the data would speak for itself. I'll include the rest of the rationale and resend.

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

From: Gary Fredricks - NOAA Federal [mailto:gary.fredricks@noaa.gov <mailto:gary.fredricks@noaa.gov>]
Sent: Thursday, June 23, 2016 9:27 AM
To: Cordie, Robert P NWP <Robert.P.Cordie@usace.army.mil <mailto:Robert.P.Cordie@usace.army.mil> >
Cc: Mackey, Tammy M NWP <Tammy.M.Mackey@usace.army.mil <mailto:Tammy.M.Mackey@usace.army.mil> >; Trevor Conder - NOAA Federal <Trevor.Conder@noaa.gov <mailto:Trevor.Conder@noaa.gov> >; Lorz, Tom <lort@critfc.org <mailto:lort@critfc.org> >
Subject: Re: [EXTERNAL] Re: FPOM: Official Coordination - 16TDA05 dual ladder outage for winter maintenance

Then include all that in the MOC as rationale for a January outage. As it stands, from a passage standpoint, November appears better given the very low fall passage at the north ladder when the east is available.

On Thu, Jun 23, 2016 at 9:04 AM, Cordie, Robert P NWP <Robert.P.Cordie@usace.army.mil wrote:

Could only find the 1 year of Jan passage data, but if you use that, Jan total passage only sees about 3% of the steelhead, 1% of the Chinook and 0% of the coho seen in Nov. The downside is that those few fish won't have a ladder to use for 2 weeks, but most are steelhead likely holding over for the winter. The upside is we should see almost no fish when we dewater in Jan.

If we dewater in Nov, we'll likely have to salvage way more fish than would even pass the dam in Jan. I'm also concerned all the large sturgeon we found in the north last year and hoping that most would move out by Jan. We've only done one Nov dewatering (JD south) in all these years, and it was ugly. Thousands of steelhead. And that was the year we lost over 1000 lamprey.

Would not advise a Nov dewatering if we can help it.

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

From: Gary Fredricks - NOAA Federal

Subject: [EXTERNAL] Re: FPOM: Official Coordination - 16TDA05 dual ladder outage for winter maintenance

Tammy, A November dual ladder outage isn't mentioned in the MOC thus I'd like to see more data and rationale on why the Corps believes "overlapping 2 weeks in January has much less potential of passage impact". Thanks, Gary

14 July 2016 FPOM – concurrence for the MOC.

Final results – This action will go forward as coordinated above.

Please email or call with questions or concerns.

Thank you,

Bob Cordie

TDA Fisheries biologist

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Jon Rerecich

NWP PM-E Fish Team bio

503-808-4779

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