OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE- 18TDA02 PUD May Outage COORDINATION DATE- March 19, 2018 PROJECT- The Dalles Dam – N Wasco PUD Turbine RESPONSE DATE- April 02, 2018

Description of the problem

Northern Wasco PUD turbine provides attraction water flow to the north fish ladder. They plan to replace the generator exciter, requiring the unit out of service for one week (May 7 - 14). During that time attraction flow to the fish ladder will be provided through the bypass system. The screen system that prevent juvenile fish from entering the turbine does not prevent fish from entering the bypass sluicegates. Therefore all juveniles entrained in flow will go through the auxiliary water system through sluice gates, over the outfall, through floor diffuser grating and into the north fish ladder. Spill for juvenile salmonids will be running during this time per the FPP.

Type of outage required - PUD turbine outage resulting in screen bypass system outage.

Impact on facility operation (FPP deviations) - None. Flow to adult ladder will not be affected. Juvenile screening requirement not stipulated in the Fish Passage Plan.

Impact on unit priority- None

Impact on forebay/tailwater operation - None

Impact on spill – None

Dates of impacts/repairs - May 7 - 14, 2018

Length of time for repairs - 7 days

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;

PSMFC sampling for first 2 weeks May 2013-2017. Weekly sample estimated to week total passage:

| | | | Chinook | | | |
|------------|----------|----------|---------|-----------|------|---------|
| | Chinook1 | Chinook0 | Fry | Steelhead | Coho | Sockeye |
| 1st wk May | 91 | 7 | 105 | 21 | 0 | 7 |
| 2nd wk | | | | | | |
| May | 56 | 42 | 35 | 7 | 7 | 21 |

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

Average forecast.

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

There will be an impact to juvenile yearling chinook, subyearling chinook, fry chinook, steelhead, sockeye and coho, but in extremely small numbers and almost unmeasurable percent of the overall run.

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.);

The impact to the species listed above is unknown. Information on survival through the bypass system could not be found.

Summary statement - expected impacts on:

Downstream migrants - Survival is unknown through the bypass system. The tightest egress is through 1"x4" diffuser grating spacing. The plunge pools below the sluicegates and outfall seem sufficient. The overall impact will be minimal. Most juvenile fish will be using the spillway which will be running in FPP criteria.

Upstream migrants (including Bull Trout) - No impacts expected. Only minutes of flow interruption between unit shutdown and bypass opened. Entrance criteria will be maintained.

Lamprey – No impacts to adult lamprey are expected since the ladder will be running in FPP criteria. Sampling at the PUD has shown only a couple of juvenile lamprey every year using the PUD route. The impacts to juvenile lamprey should be minimal.

Comments from agencies

----Original Message----From: Blane Bellerud - NOAA Federal [mailto:blane.bellerud@noaa.gov] Sent: Wednesday, March 21, 2018 12:23 PM To: Kovalchuk, Erin H CIV USARMY CENWP (US) <Erin.H.Kovalchuk@usace.army.mil>

Subject: [Non-DoD Source] Re: FPOM: Official Coordination 18TDA02 MOC PUD May Outage

OK, thanks to Bob for clearing up the potential for adult fallback (almost none). However, the questions remain

Could this be rescheduled for outside of fish passage season?
Why or Why not?

Any time you operate an unscreened intake that is known to entrain fish it will require serious consideration. Better to schedule it outside of fish passage season if possible.

Blane

On Wed, Mar 21, 2018 at 10:58 AM, Blane Bellerud - NOAA Federal

blane.bellerud@noaa.gov <mailto:blane.bellerud@noaa.gov> > wrote:

This one makes me uneasy, not only the risk to juveniles (I suspect the survival would be pretty low), but also risk to fallback adult steelhead and spring chinook that might be entrained. This work should be conducted outside of the passage season.

Blane

Final coordination results – The PUD is withdrawing this MOC from consideration.

After Action update

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

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