OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE- 19 IHR 02 AWS Pump Outages for Feeder Line Testing COORDINATION DATE- Feb. 28, 2019

PROJECT- Ice Harbor Dam

RESPONSE DATE- March 8, 2019

Description of the problem

The project needs to test the 5 kv Dam Feeder #1 for LSP-1 and FSP-2 switch gear. The Dam Feeder #1 lines (and FSP-2 switch gear) would be taken out of service one at a time, which will turn off power to two of the three north shore auxiliary water supply (AWS) pumps. This would occur in conjunction with scheduled preventative maintenance on LSP switchgear, which will take out power to the rest of the north shore of the dam (coinciding with the navigation lock outage in March). The partial AWS pump outage will impact meeting criteria at the north fish ladder entrance.

Type of outage required

Impact on facility operation (FPP deviations)

Depth at entrance NEW-1 will be reduced below 8' criteria for one day, March 15 or 16, 2019. To maintain criteria of 1' to 2' channel/tailwater head at the entrance to the north fish ladder with a single AWS pump operating, NEW-1 weir gate will be raised as needed to no less than a 6' depth (per FPP Ice Harbor Section 3.3.2.3.b.).

Impact on unit priority

None.

Impact on forebay/tailwater operation

None.

Impact on spill

None.

Dates of impacts/repairs

March 15 or 16, 2019

Length of time for repairs

One full day (0630-1700) is being requested for the testing of Dam Feeder #1, just in case the testing takes longer than expected. Power will be restored for normal two-pump operation as soon as testing is completed.

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;
 - The 10-year average (counts only done in March in 2013 and 2018) number of adult steelhead counted at Ice Harbor on March 15 and 16 is 34 and 44, respectively. No other adult ESA-listed fish or adult lamprey were observed.
- 2. Statement about the current year's run (e.g., higher or lower than 10-year average);
 - From February 3 to February 25, the 2019 fish counts have been the same or lower than the average of the previous 10 years (counts only done in 2014).
- 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 percent of the 10-year average of the yearly total of adult steelhead counted at the dam is 0.02% and 0.03% for March 15 and 16, respectively.
- 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 volume of attraction flow coming out of NEW-1 entrance will be reduced with only one AWS pump running and the entrance weir gate raised up by as much as 2' to compensate. However, the entrance head should still be in criteria, so the water velocity coming out of the entrance will be maintained. There may be a small increase in search time for adult salmonids to find the NEW-1 entrance.

A fishway inspection will be done while the one-pump operation is occurring to monitor the NEW-1 entrance head and weir gate depth.

Summary statement - expected impacts on:

Downstream migrants

There should be no impacts on juvenile or adult salmonids going down the ladder.

Upstream migrants (including Bull Trout)

Based upon the low numbers of upstream migrants expected in mid-March, the impact should be minimal.

Lamprey

There are normally very few adult lamprey migrating upstream in March, so the impact should be minimal. Juvenile or adult lamprey going down the ladder should not be affected.

Comments from agencies

Final coordination results

After Action update (After action statement stating what the effect of the action was on listed species. This statement could simply state that the MOC analysis was correct and the action went as expected, or it could explain how the actual action changed the expected effect (e.g., you didn't need to close that AWS valve after all, so there was no impact of the action). List any actual mortality noted as a result of the action)

Please email or call with questions or concerns. Thank you,

Ken Fone Project Fishery Biologist Ice Harbor Dam

kenneth.r.fone@usace.army.mil