

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

**COORDINATION TITLE-** 21LWG03 - 2021 Floating Orifice Gate Operation

**COORDINATION DATE-** 4 March 21

**PROJECT-** Lower Granite Dam

**RESPONSE DATE-** 18 March 2021

**Description of the problem-** LWG previously coordinated to operate the adult fish ladder collection channel with FOGs 4 and 7 closed, keeping FOG's 1 and 10 open. Channel/tailwater head differentials readings improved during this operation however channel velocity seemed to be negatively impacted. Working with District hydraulic design it was recommended that FOGs 4 and 7 be reopened to achieve north powerhouse channel velocities of 1.5-4 fps. In addition, NSE2 entrance weir, which had failed in 2011, and NSE1 were replaced during the 2020-2021 winter outage. This provides an opportunity to operate the fish ladder collection channel in the historical configuration.

The ladder was returned to operation with both NSEs open and all four FOGs (1, 4, 7, 10) in operation as a starting point to trouble shoot ongoing challenges maintaining channel/tailrace head differentials, depth, channel velocity, and ladder control system programming challenges. Results we observe through the 2021 passage season will be shared with FPOM with recommendations for future operation configurations for the fishway.

**Type of outage required-** None

**Impact on facility operation (FPP deviations)-** Operate fishway with FOG's 4 and 7 open.

**Impact on unit priority-** None

**Impact on forebay/tailwater operation-** None.

**Impact on spill-** None.

**Dates of impacts/repairs-** 1 March – December 30.

**Length of time for repairs-** NA.

**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.

2. Statement about the current year's run (e.g., higher or lower than 10-year average); Runs are expected to be lower than 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); Change in operations will potentially occur for duration of the passage season, (e.g. 100% exposure)
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.); Opening two FOG's may have a negative impact to entrance differentials, fishway velocities may improve. We will respond to any significant deviations from operations criteria that occur.

**Summary statement - expected impacts on:**

**Downstream migrants:** N/A

**Upstream migrants (including Bull Trout):** Potential passage delay if fishway operates out of criteria.

**Lamprey:** Potential passage delay if fishway operates out of criteria

**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,  
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