

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

**COORDINATION TITLE** – 19 LWG 04 AWS Pump 1 Return to Service

**COORDINATION DATE** - 17 April 2019

**PROJECT** - Lower Granite Dam

**RESPONSE DATE** - 1 May 2019

**Description of the problem-** Lower Granite normally operates the fish ladder with two auxiliary water supply (AWS) pumps in service and one in standby mode. Currently pumps 2 and 3 are in operation and AWS pump 1 is out of service for completion of lower guide bearing repairs. Pump 1 needs to be brought on line for operational reliability testing.

**Type of outage required-** AWS pumps will be taken out of service to swap discharge bulkheads from pump 2 to pump 1. If the test of pump 1 is successful, AWS pumps 1 and 3 will remain in operation.

**Impact on facility operation (FPP deviations)-** Adult fish ladder collection channel and entrance attraction flows will be impacted with channel/tailwater head differentials and depth over the entrance weirs out of criteria during the two hour AWS pump outage.

**Impact on unit priority-** N/A

**Impact on forebay/tailwater operation-** N/A

**Impact on spill-** N/A

**Dates of impacts/repairs-** 7 May 2019 from 1400-1600 hrs. If testing AWS pump 1 is not successful during this time period, it will allow time in the afternoon to exchange bulkheads back for AWS 2 pump operation.

**Length of time for repairs-** The bulkhead swap and test is estimated to be completed in two hours or less.

**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 adult passage for May 7 is 1,513 adult Chinook, 32 Jack Chinook, and 16 steelhead. Work is expected to take less than 2 hours and the estimated proportion of fish is based on the total day counts. Based on the 16 hour count day about 190 adult Chinook, 4 jack Chinook, and 2 steelhead may be impacted during the stoplog swap.

2. Statement about the current year's run (e.g., higher or lower than 10-year average);  
2019 adult salmon and steelhead runs are projected to be below the 10-year averages.
3. Estimated exposure to impact by species and age class (i.e., number or percentage of run exposed to an impact by the action);  
Based on the 16 hour count day and the 10 year average fish passage for the two hour work window for May 7, the AWS pump outage can potentially impact about 0.17% adult Chinook, 0.01% jack Chinook, and 0.001% steelhead may be impacted during the stoplog swap.
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.);  
Repairs are scheduled after 1400 hours to reduce the potential for increased adult delays during the adult morning peak migration hours. No impacts to juvenile passage are expected.

**Summary statement - expected impacts on:**

**Downstream migrants:** N/A

**Upstream migrants (including Bull Trout):** Potential minor delay in adult fish passage due to reduction in attraction flow.

**Lamprey:** N/A

**Comments from agencies:**

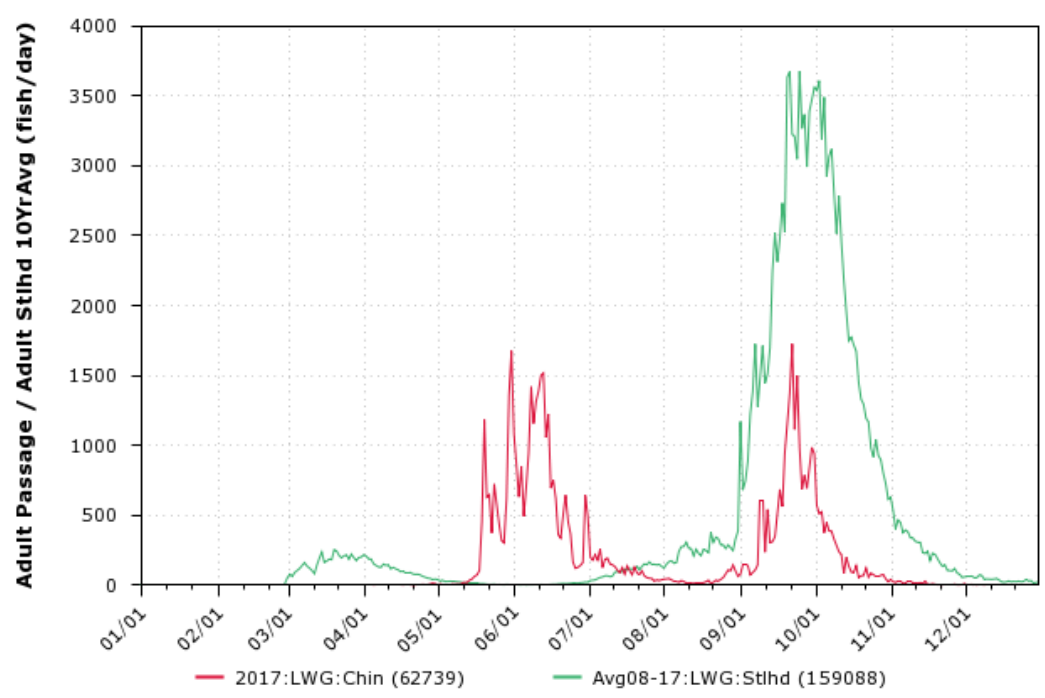
**Final coordination results:**

**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)

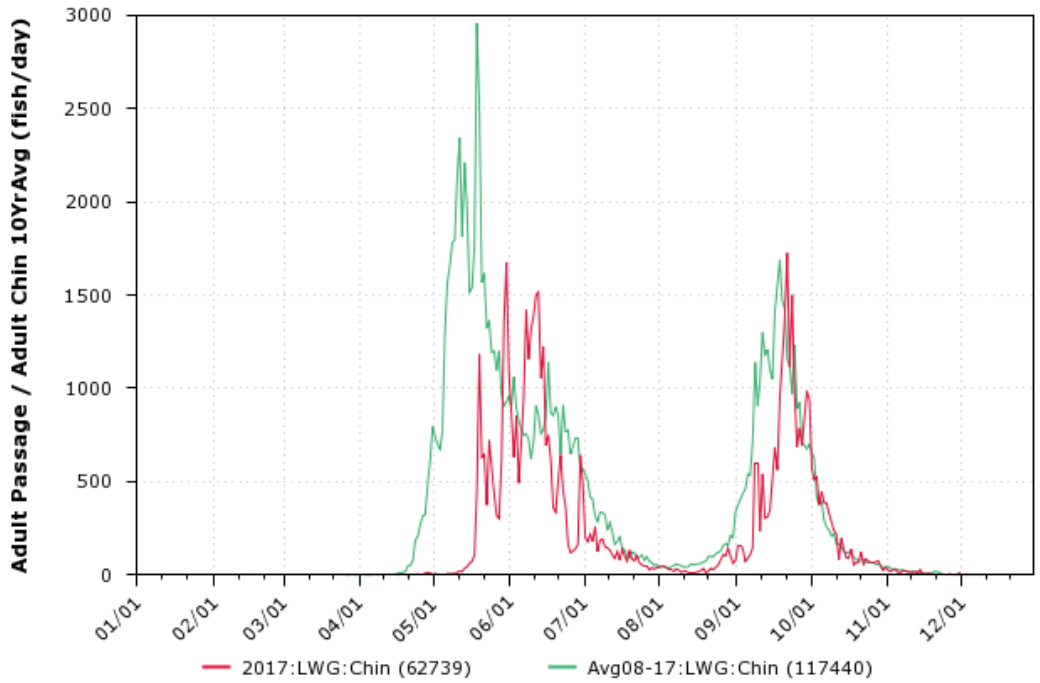
Please email or call with questions or concerns.

Thank you,  
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Lower Granite Lock and Dam  
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### Adult Passage Adult Steelhead 10YrAvg



### Adult Passage Adult Chinook 10YrAvg

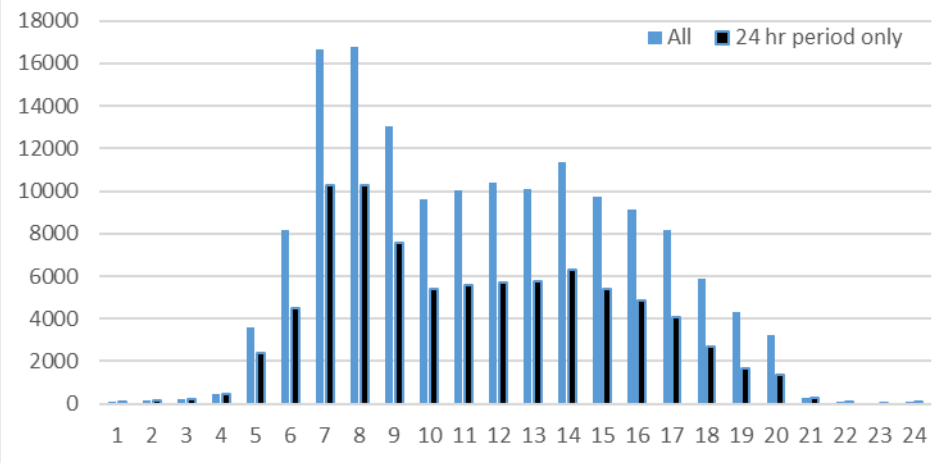


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17 May 2018 15:56:44 PDT

### Lower Granite Chinok salmon 10-Yr Averages by Hour

2008-2017



Lower Granite Dam Steelhead 10-Yr Means by Hour  
2008-2017

