

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

COORDINATION TITLE – 23 LMN 01 PNNL Autonomous Receiver Install

COORDINATION DATE – 13 February 2023

PROJECT - Lower Monumental Dam

RESPONSE DATE – 17 February 2023

Description of the problem- The investigation described here to address management questions about the potential effects of Federal Columbia River Power System (FCRPS) operations and configurations on behavior and survival of juvenile Pacific lamprey, is scheduled at LMN during the 2023 migration season.

Detections in the juvenile bypass collection channel and the juvenile transport raceways at LMN requires installation of an autonomous receiver into channel flow at the upstream end of the primary dewaterer. The casing is designed to direct flow around the receiver with a low profile to minimize impacts to fish passage (Figure 1). This receiver design and placement is similar to that used at Lower Granite Dam JFF in 2022. Because LMN has agreed to have the JFF in operation by March 1 (early start), this installation needs to be made by February 23.

Type of outage required- No outages are required.

Impact on facility operation (FPP deviations)- No deviations from FPP.

Impact on unit priority- N/A

Impact on forebay/tailwater operation- N/A

Impact on spill- N/A

Dates of impacts/repairs- March 1- October 1.

Length of time for repairs- N/A

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;
Adult fish passage facilities will not be impacted. LMN juvenile salmonid passage April 01- October 1 are summarized by species in Figure 2. There is not enough sampling data to have a ten year average for March 1 to March 31. The 10-year average number of fallbacks at LMN by species summarized in Figure 3.

2. Statement about the current year's run (e.g., higher or lower than 10-year average);
No data available on the current year's run.
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 receiver will be installed in the PDW and JFF transport raceways through the peak outmigration period for all juvenile species. Fallbacks through the juvenile bypass system will be passing the receiver as they enter the PDW. The receiver housing will be smooth without rough edges to reduce potential impacts to fish.
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.);
Fish in the juvenile bypass flow will be channeled around the receiver housing as they come into the PDW.

Summary statement - expected impacts: No impact to operations. Low flow velocities in this section of the channel and housing around receiver should minimize impacts to fish.

Downstream migrants: Minimal

Upstream migrants (including Bull Trout): Minimal

Lamprey: Minimal

Comments from agencies:

Final coordination results:

After Action update:

Please email or call with questions or concerns.

Thank you,
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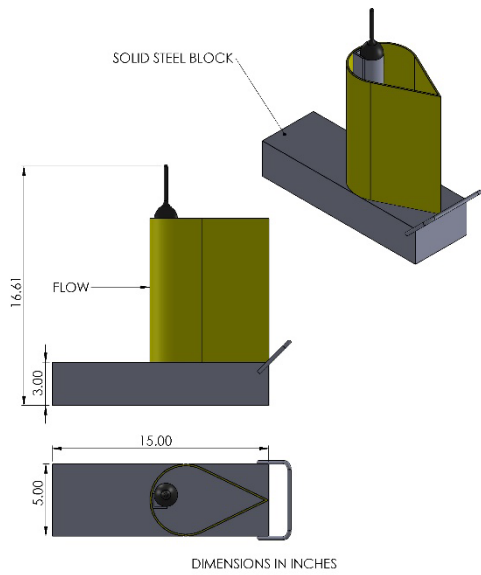


Figure 1. Autonomous receiver design.

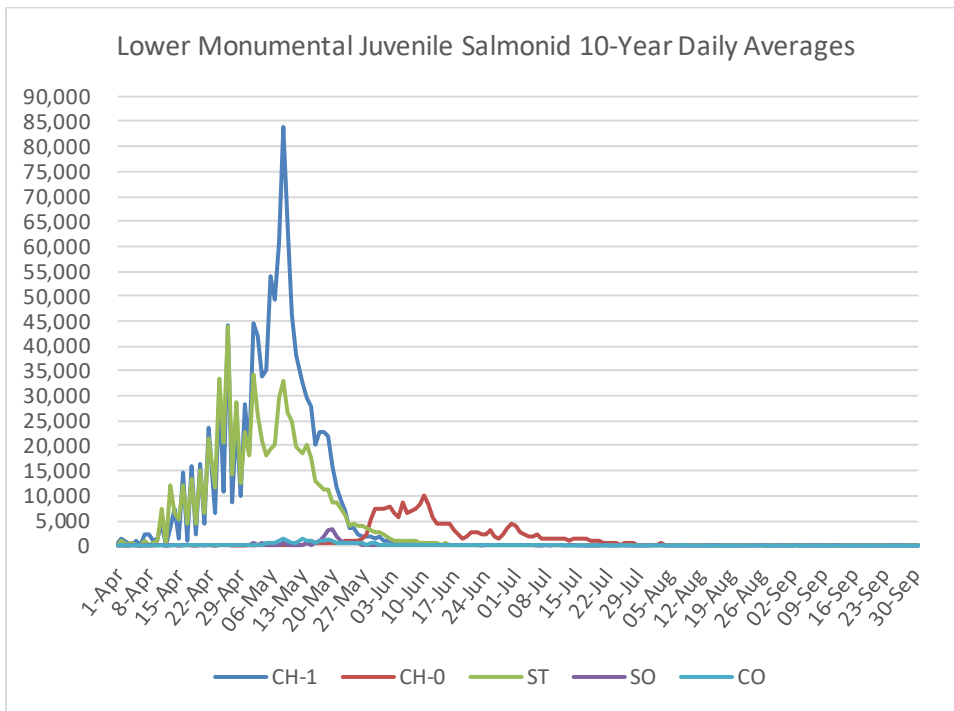


Figure 2. Lower Monumental Juvenile Salmonid 10-Year Daily Average Passage by species.

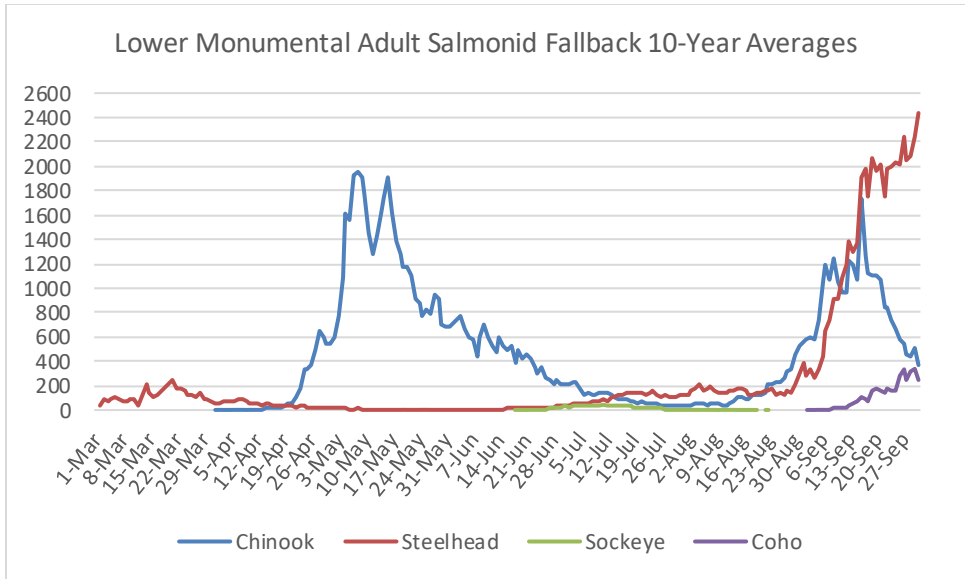


Figure 3. Lower Monumental Adult Fallbacks 10-Year Daily Average by species