

**OFFICIAL MEMO of COORDINATION (MOC) FOR NON-ROUTINE  
OPERATIONS & MAINTENANCE**

**COORDINATION TITLE-** 21 LGS 14 Commissioning of T2-C Transformer

**COORDINATION DATE-** September 15, 2021

**PROJECT-** Little Goose

**RESPONSE DATE-** September 24, 2021

- 1. Description of problem.** A series of complete line outages along with one day of running outside of unit priority is necessary to commission Transformer T2-C.

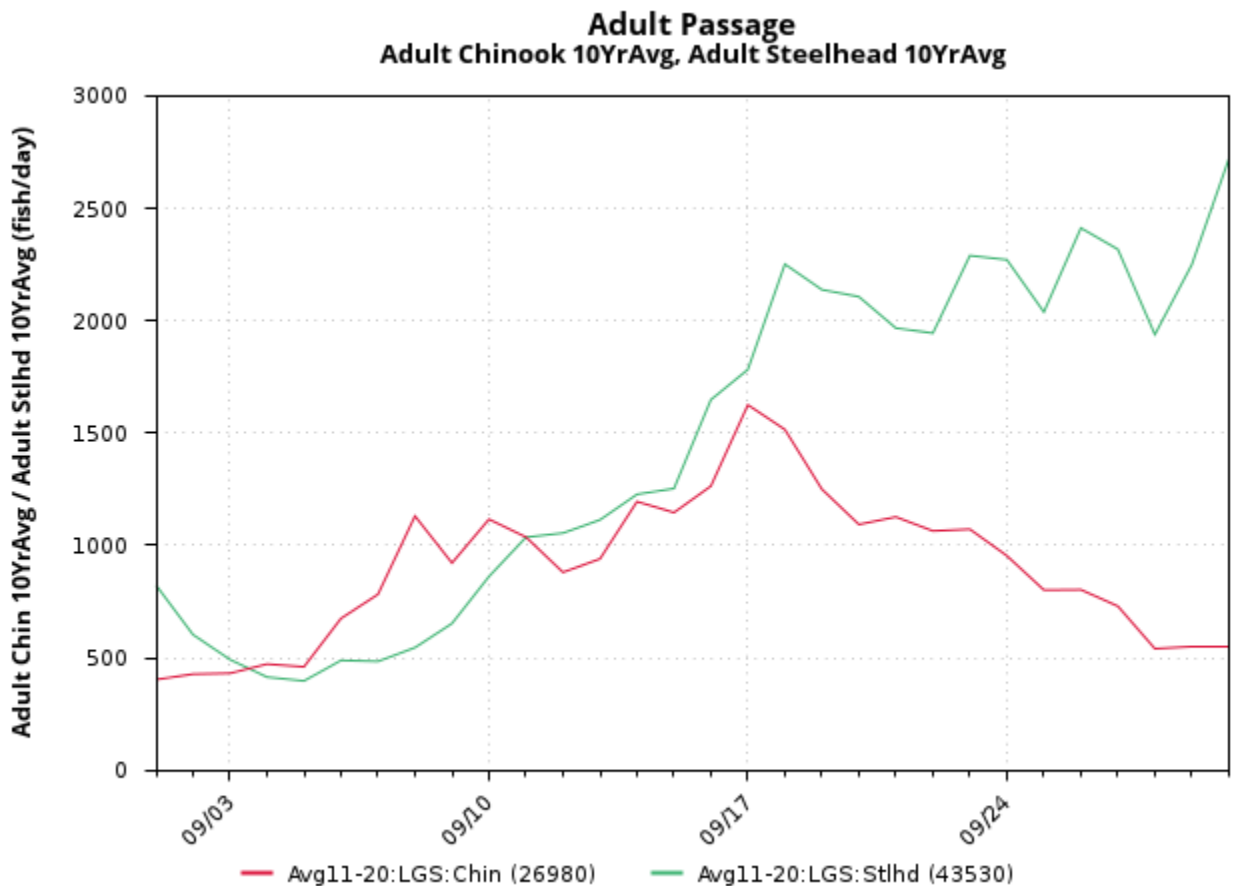
The commissioning process for T2-C will require a line outage and removing all turbines from operation on 27 & 28 September 2021 from approximately 1000 to 1600 hours on both days for relay testing. Unit 4 is scheduled to come out of service 20 September for a 3-week annual so the project will be operating on Emergency Diesel Generator (EDG) during these aforementioned line outages.

After relay testing is completed, a short line outage with no turbines operating is necessary on 29 September 2021 from approximately 0700 to 0900 to close T2 disconnects and commence an 8-hour warm-up period unloaded.

50% loaded testing will commence 30 September 2021. To achieve 50% load, Unit 6 will be operated out of priority at full load and Unit 1 will be secured from approximately 0700-1600.

- 2. Type of outage required.** This work requires a complete line outage to provide worker and equipment safety from approximately 1000 to 1600 hours 27-28 September and a brief 2 hour line outage on 29 September to close the T2 disconnects. During these two outages, no turbines will be operating and all flow will be spilled. Additionally, Unit 6 will need to be operated out of unit priority on 30 September for load testing of T2.
- 3. Dates of impacts/repairs.** During the timeframe of 1000-1600 hours on 27-28 September, and 0700-0900 hours on 30 September, the project will be operating on EDG. The project will be operated outside of unit priority for one day on 30 September. Fish pumps will be in operation during the outage except during beginning and end for switching.
- 4. Length of time for repairs.** The outage will begin 1000 hours each day to facilitate switching and clearance procedures. The line will be restored and normal operation will commence at 1600 hours each evening.
- 5. Impact on fish facility operation.** The JFF will be operating on EDG for the entirety of the work which will have little to no impact on operation.
- 6. Impact on project operations.** Little Goose will be disconnected from the 500 kV line, all units out of service and spilling all river inflow for 8 hours each day on 27-28 September and 2 hours on 29 September.

7. **Analysis of potential impacts to fish.** The 10-year average adult fish counts for September 27-30 include: 9,224 adult steelhead and 2,378 adult Chinook salmon. The graph below shows adult passage 10-year averages for the month of September. Upriver migrants including fall Chinook salmon and steelhead may be delayed due to the lack of attraction water from Unit 1.



Little impact is expected to downstream juvenile migrants, as collection numbers are very low during this period. During the 2020 season at Little Goose, 309 juvenile salmonids were collected and trucked from September 27-30. The juvenile fish facility will continue collecting and transporting fish during this work.

- 8. **Comments from agencies.**
- 9. **Final coordination results.**
- 10. **After Action update.**

Please email or call with questions or concerns.

Thank you,

Chuck Barnes

Little Goose Lock and Dam

Supervisory Fish Biologist

[Charles.A.Barnes@usace.army.mil](mailto:Charles.A.Barnes@usace.army.mil)