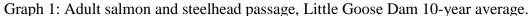
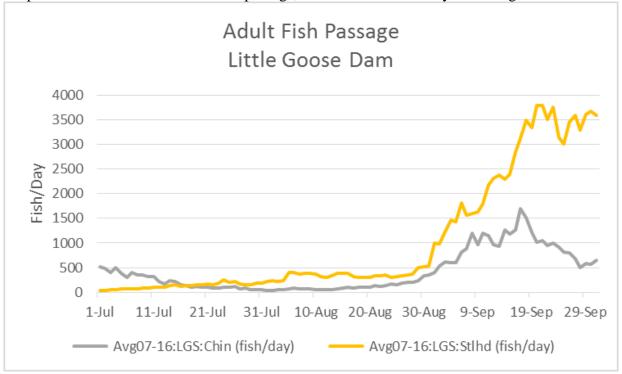
OFFICIAL MEMO of COORDINATION (MOC) FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE- 17 LGS 16 Unit 1 Governor Oil Pump Switch COORDINATION DATE- August 1, 2017 PROJECT- Little Goose Lock and Dam RESPONSE DATE- August 10, 2017

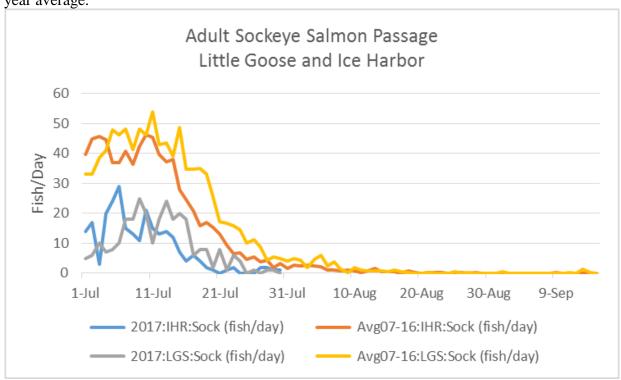
- **1. Description of problem:** Unit 1 has become unreliable due to continued failures of the selector switch for the governor oil pumps. The unit has been forced out of service recently due to this issue. To prevent imminent failure, Little Goose would like to rewire the governor oil pump selector switch prior to the peak fall salmon and steelhead migration.
- **2. Type of outage required:** Unit 1 will be out of service, impacting unit priority from August 15 through August 17 (FPP LGS 4. Table LGS 5).
- **3. Dates of impacts/repairs:** August 15 August 17
- **4. Length of time for repairs:** Three full working days, August 15 through August 17.
- **5. Impact on fish facility operation:** Juvenile fish facility will operate as normal.
- **6. Impact on project operations:** Unit priority will be impacted for the entire length of the repairs.
- 7. Analysis of potential impacts to fish: Impact to adult fish passage should be minimal during this time of the year. The peak adult fall chinook and adult steelhead passage occur in September and October (FPP Chapter 8, Table LGS-4) and the peak of adult sockeye salmon have already migrated upriver, past Little Goose Dam (Graph 1 and Graph 2). The estimated adult passage at Little Goose during this outage include 91 chinook, 364 steelhead and 1 sockeye passing each day from August 15 through August 17. However, the current run of adult steelhead is much smaller than previous years and daily passage during this time is expected to be much lower (Graph 3). Juvenile fish passage will also have minimal impact. The peak of subyearling chinook salmon, which make up the largest proportion of fish migrating downriver during the month of August, will have already past Little Goose Dam (Graph 4).
- **8. Final judgement on scale of expected impacts (negligible, minor, significant) on:** Minimal impact on both adult and juvenile salmon and steelhead. There is potential for adult salmon and steelhead delay as unit priority will be impacted, however numbers will be very low. Juvenile salmon and steelhead will continue to have multiple passage routes including spill and the juvenile bypass system.
- 9. Comments from agencies.
- 10. Final coordination results.

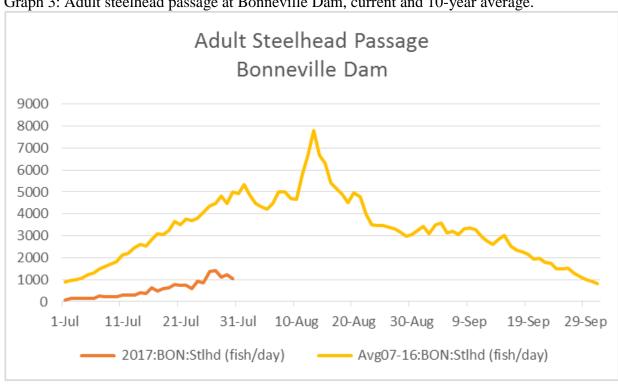
11. After Action update.





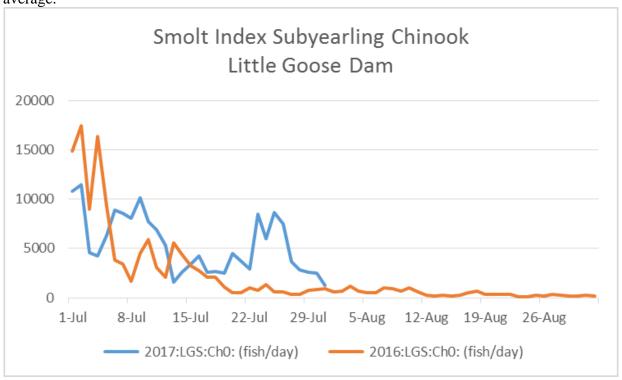
Graph 2: Adult sockeye salmon passage at Little Goose and Ice Harbor Dam, current and 10-year average.





Graph 3: Adult steelhead passage at Bonneville Dam, current and 10-year average.

Graph 4: Subyearling chinook salmon smolt index at Little Goose Dam, current and 10-year average.



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

Scott St. John Little Goose Dam Project Fish Biologist Scott.St.John@usace.army.mil