

**MEMORANDUM FOR THE RECORD****SUBJECT: 24BON031 MFR CI LPS Temporary Shutdown**

On the afternoon of Tuesday, 16 July, the Cascades Island Lamprey Passage Structure (CI LPS) Pump 1 overload trip alarm came in at 1430 hours. Electricians and Project Biologists arrived at the CI LPS to investigate the pump and check water levels and confirm safety of fish. It was determined that the Pump 1 overload heater element had failed and needed to be replaced.

This repair was estimated to take less than an hour. During repairs, the remaining three pumps of the CI LPS continued to run, and Project Biologists continued to check rest boxes and remained on standby with equipment to salvage if repairs could not be completed successfully. Pump 1 was returned to service and the system was fully functional by 1530.

At 1617, the Pump 1 overload tripped again, and the Pump 1 was reset and returned to service but was discovered to be drawing higher amperage than normal. At 1629, Pump 1 overload tripped again and could not be reset. Due to the reduced flow performance of the CI LPS, concerns with pump reliability, and the lack of fisheries staff onsite after normal working hours (after 1700) it was determined that the safest option for life and health safety of fish was to perform an emergency fish salvage and turn off the LPS temporarily until repairs could be completed. The CI LPS was fully shutdown and salvaged by 1730. A total of 13 Pacific Lamprey were salvaged from the structure and released upstream to the forebay as close to the CI LPS exit as possible. No mortalities were found.

Bonneville Project is working diligently to come up with a reliable repair to restore the CI LPS, but it is not known at this time when the LPS will be returned to service.

- A. Species – Pacific Lamprey (*Entosphenus tridentatus*)
- B. Origin – NA
- C. Length – NA
- D. Marks and tags – NA
- E. Marks and Injuries found on carcass – NA
- F. Cause and Time of Death – No mortalities.
- G. Future and Preventative Measures – Bonneville Personnel are working diligently to come up with a reliable repair for the remainder of the lamprey passage season.

Sincerely,  
Bonneville Project Fisheries

**After Action Update:** The Cascades Island LPS was returned to service on July 23 at 1145. The overload heater elements parts were replaced for Pump 1. There are concerns that the pump(s) may trip in the future because they are still drawing higher amps. This risk increases when the ambient air temperatures are warmer.