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Cc: Region 2 Fish Files

### Frog Lake Fish and Amphibian Survey

On June 12, 2018, California Department of Fish and Wildlife (Department) completed a fish and amphibian survey at Frog Lake. The purpose of the survey was to determine if there were any trout inhabiting the lake from prior stockings, determine if any Sierra Nevada mountain yellow-legged frog (*Rana sierra*) were present, and to assess if the pre-stocking evaluation could be re-approved.

Frog Lake is a small six acre lake in Alpine County located at 38° 41' 16.06 N 119 59' 10.03 W situated at 8,865 feet above mean sea level. The shoreline is a mix of rocks, sand, and conifer forest. The lake bottom appears mostly mud and various sized rock substrate. At the time of the survey the lake level appeared to be approximately four feet below the high water mark. When Frog Lake spills, water drains into nearby Red Lake. The lake receives water from rain and snowmelt runoff from the immediate area. The lake historically has received fingerling stockings of brook trout (*Salvelinus fontinalis*), rainbow trout (*Oncorhynchus mykiss*), and Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*) with the last recorded plant of rainbow trout in 2017.

A 120 foot long variable mesh size gillnet was set at 10:20 on June 12, on the southern part of the lake's shoreline extending towards the middle of the lake (Figure 1). The gillnet was pulled at 16:38 on June 12. No fish were recovered in the net.



Figure 1. Frog Lake with gillnet placement transect on June 12, 2018.

From 10:00 – 16:00 Department staff and one volunteer conducted a hook and line survey to determine if there were any trout still inhabiting Frog Lake. Three rainbow trout were caught, measuring 9.5, 9.5, and 9.75 inches in total length.

Department personnel conducted the Fellers Freel 1995 Visual Encounter Survey (VES) Protocol as modified by the Department to conduct the amphibian survey at Frog Lake. The VES began at 10:00 and ended at 13:36 on June 12 where the entire lake shoreline was surveyed. No amphibians were observed. One Pacific tree frog (*Pseudacris regilla*) was observed during the 2014 survey (Ewing 2014). In 2001 during a High Mountain Lakes survey at the lake, no amphibians were observed (CDFW HML Database 2014). Based on the results of the evaluations completed, a pre-stocking evaluation will be written to keep Frog Lake to the Department fish stocking list.

#### Literature Cited:

1. California Department of Fish and Wildlife, High Mountain Lakes Database, North Central Region.
2. Ewing, B. Frog Lake Fish and Frog Evaluation Survey. California Department of Fish and Game; 7/18/2014. [Cited 2018 June 22]. Available from: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87503>
3. Fellers, G. M. and K. L. Freel. 1995. A standardized protocol for surveying aquatic amphibians. National Biological Service Cooperative Park Studies Unit, University of California Division of Environmental Studies, Davis, CA. Technical Report No. NPS/WRUC/NRTR95-01 (UC CPSU TR # 58).





