

Memorandum

Date: 8/26/2016

To: Kevin Thomas
Environmental Program Manager, Region 2 Fisheries
Department of Fish and Wildlife

From: Ben Ewing
District Fishery Biologist (Alpine, Amador, Calaveras, and Lake Counties)

Subject: Lost Lake (Stanislaus Drainage) Fish and Amphibian Surveys

On September 9, 2015, California Department of Fish and Wildlife (Department) personnel completed an amphibian survey at Lost Lake (Stanislaus Drainage). On August 23 and 24, 2016, Department personnel and volunteers completed a fish survey at Lost Lake. The purpose of the surveys was to determine if any Sierra Nevada yellow-legged frog (*Rana sierra*) and fish were present, and to assess if the lake could be added to the Department fish stocking list.

Lost Lake is a small nine acre lake in Alpine County located at 38° 24' 29.70 N 119 56' 13.61 W situated at 6,925 feet above mean sea level (Figure 1). The majority of shoreline is a mix of bedrock with a few conifers (*Pinopsida* class) (Figure 2). The lake bottom appears mostly made up of various sized rock substrate. A depth of 13.0 meters (42 ft) was taken at one area of the lake on September 9, 2015. When Lost Lake spills, water drains into nearby New Spicer Meadow Reservoir. Lost Lake receives water from rain and snowmelt runoff from the immediate area and possibly an underground spring. The lake historically has received fingerling stockings of brook trout (*Salvelinus fontinalis*) and rainbow trout (*Oncorhynchus mykiss*), with the last allotment being brook trout in 2000.



Figure 1. Lost Lake (Alpine County, CA)



Figure 2. Lost Lake looking east (B.Ewing, 9/9/2015).

Department personnel utilized the Fellers and Freel (1995) visual encounter survey (VES) protocol as modified by the Department to conduct the amphibian survey at Lost Lake. The VES began at 11:30 and ended at 12:08 on 9/9/2015 where the entire lake shoreline was surveyed. One Sierra garter snake (*Thamnophis couchii*) was seen during the survey.

For the gillnet survey, a 120 foot long variable mesh size monofilament gillnet was set on the western part of the lake's shoreline extending towards the middle of the lake at 14:45 on 8/23/2016 and pulled at 10:20 on 8/24/2016 (Figures 3 and 4). No fish were recovered in the net. A depth of 8.5 feet was taken at the end of the gillnet furthest from shore.



Figure 3. Lost Lake gill net set looking south (B.Ewing, 8/26/2016).

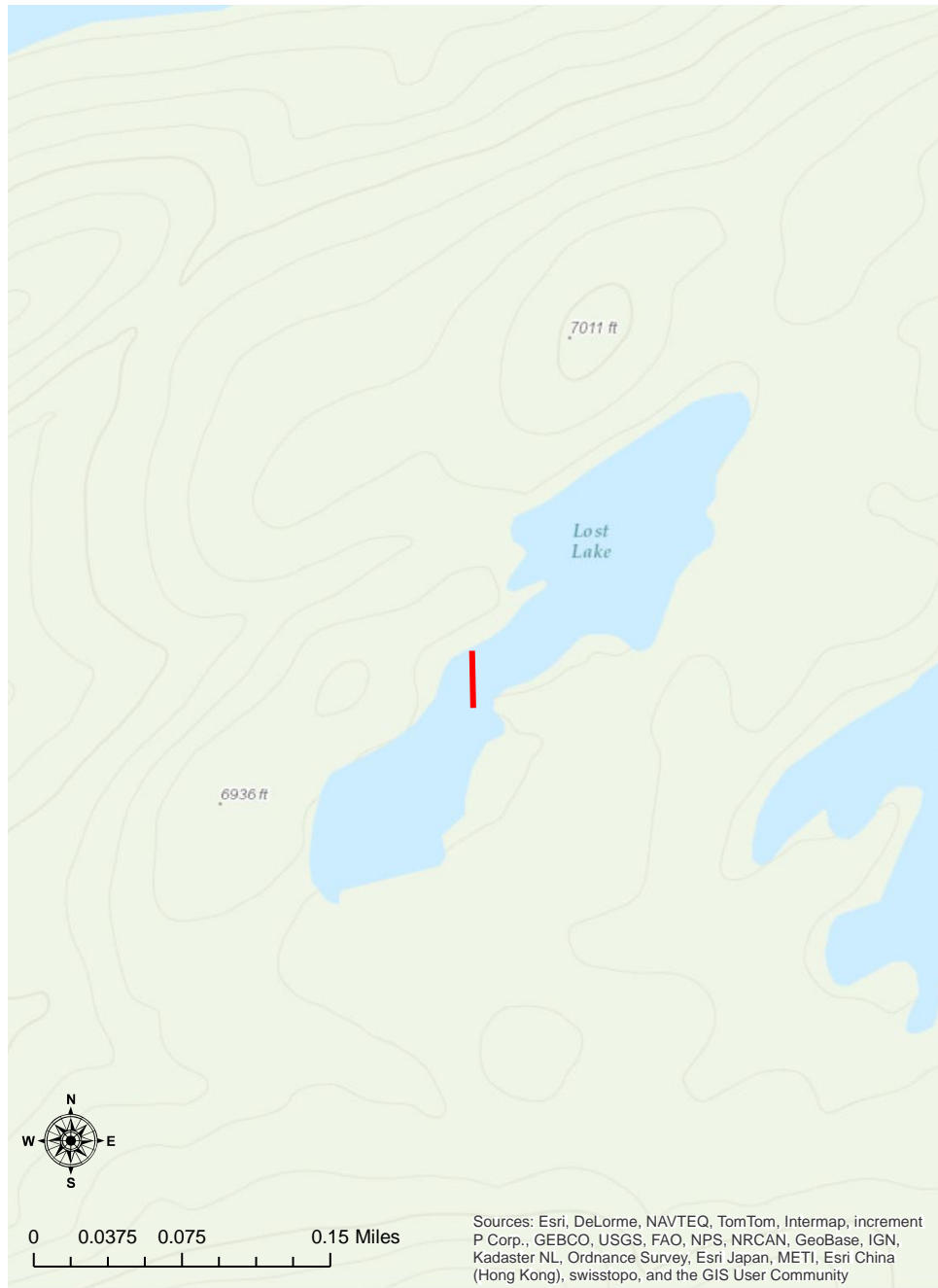


Figure 4. Location of gillnet set at Lost Lake.

Based on the results of the evaluations completed, a pre-stocking evaluation will be completed to add Lost Lake to the Department fish stocking list.

Literature Cited:

Fellers, G. M., and K. L. Freel. 1995. A standardized protocol for surveying aquatic amphibians. Technical Report NPS/WRUC/NRTR-95-001. National Biological Service, Cooperative Park Studies Unit, University of California, Davis, CA. 123 pp.