

Memorandum

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To: Sarah Mussulman
Senior Environmental Scientist (Supervisor)
North Central Region

From: Isaac Chellman
Environmental Scientist – High Mountain Lakes
North Central Region

Cc: Region 2 Fish Files

Subject: Fisheries monitoring in Nevada County – Secret Lake (12505).

On July 28-29, 2016, California Department of Fish and Wildlife (CDFW) conducted fisheries monitoring surveys at Secret Lake (CA Lakes ID 12505, Figure 1) in Nevada County. One gill net was set overnight for 12.5 hours and returned 13 rainbow trout (*Oncorhynchus mykiss ssp.*). Due to the number of rainbow trout captured, CDFW will not resume plants at the lake and will manage Secret Lake as a self-sustaining rainbow trout fishery.



Figure 1: Secret Lake, looking south, on 7/29/2016 (CDFW).

INTRODUCTION

Secret Lake is a small lake located near Meadow Lakes Road in northern Nevada County (Figure 2). CDFW planted Secret Lake with fingerling rainbow trout between 1971 and 1999. In 1992, CDFW planted fingerling Eagle Lake rainbow trout (*Oncorhynchus mykiss*

aquilarum). CDFW detected trout in the lake during a visual fishery survey in 2004, but because trout planting occurred until 1999, an additional survey was necessary to determine the status of the fishery.

As directed by the Hatchery Operations EIS/EIR (Jones and Stokes 2010), CDFW is currently evaluating the location and status of stocked and formerly stocked backcountry fisheries. All data gathered as part of this study will be incorporated into the High Mountain Lakes database and made available to both federal and state agencies. Data from this memorandum will benefit CDFW in future efforts for fish stocking and wild trout management in the North Central Region.

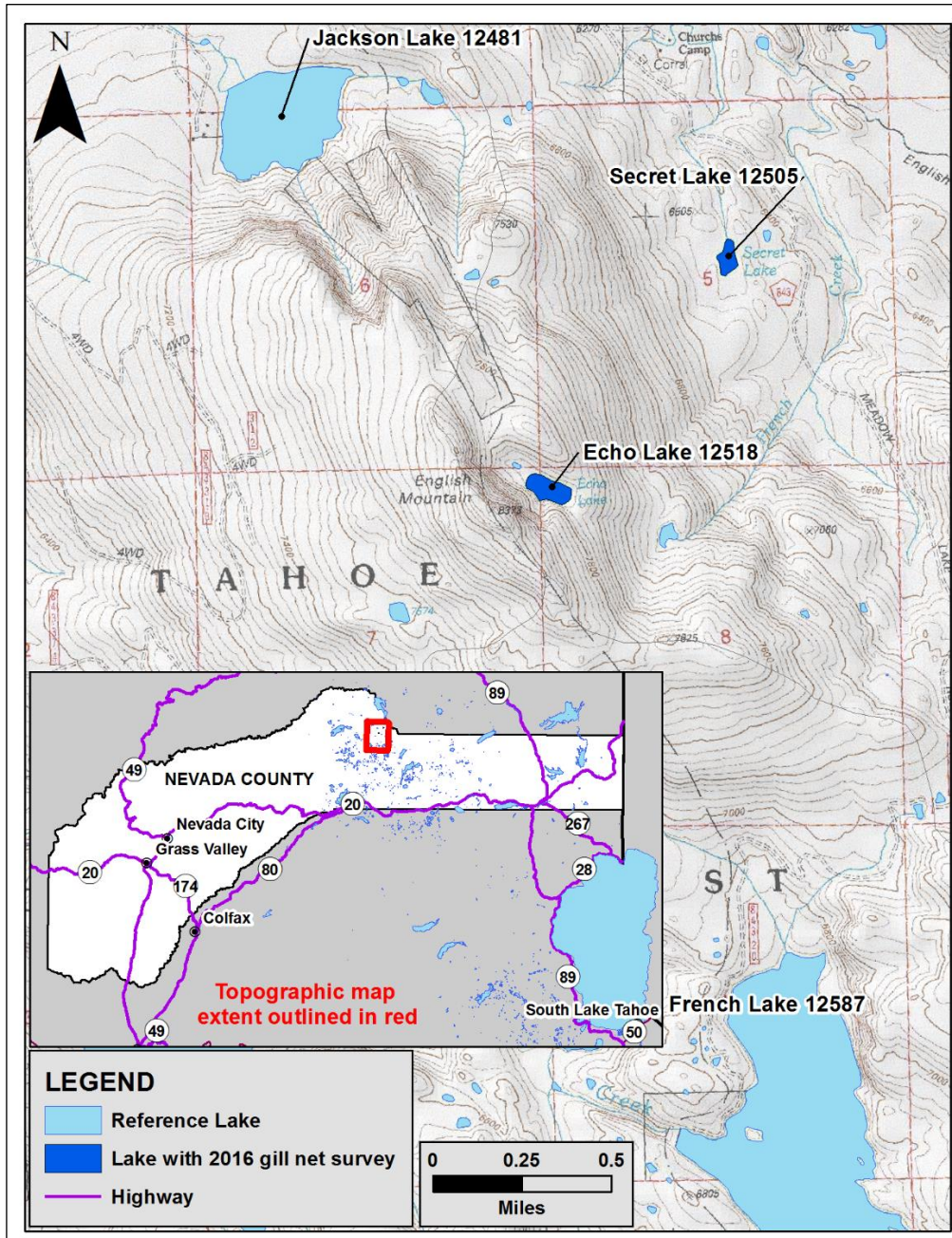


Figure 2: Location of the survey area in north-central Nevada County, CA. Secret Lake was surveyed on July 28–29, 2016.

ENVIRONMENTAL SETTING

Secret Lake has a surface area of 0.9 hectares and a maximum recorded depth of 4.1 meters. Littoral zone habitat consists primarily of silt and woody debris. Terrestrial habitat consists of mixed conifer forest and meadows at an elevation of approximately 2000 meters above mean sea level.

Access to Secret Lake is via a short cross-country hike from Meadow Lake Road near Highway 89. Secret Lake drains into Jackson Meadows Reservoir and eventually into the Middle Yuba River. Tahoe National Forest manages the land in the watershed.

RESULTS

On July 28–29, 2016, one standard, variable mesh sinking gill net was set overnight for a total of 12.5 hours and returned 13 rainbow trout. Based on the number and size classes of rainbow trout captured during the 2016 survey (Figure 3), CDFW expects that rainbow trout will persist in the lake; therefore, fish plants at Secret Lake will not resume, and CDFW will manage the lake as a self-sustaining rainbow trout fishery.

Incidentally, CDFW conducted amphibian surveys on July 29, 2016 and did not observe any Sierra Nevada Yellow-legged Frogs (*Rana sierrae*). However, surveyors did observe Sierran Treefrogs (*Hyla sierra*; formerly *Pseudacris regilla*, Pacific Chorus Frog).

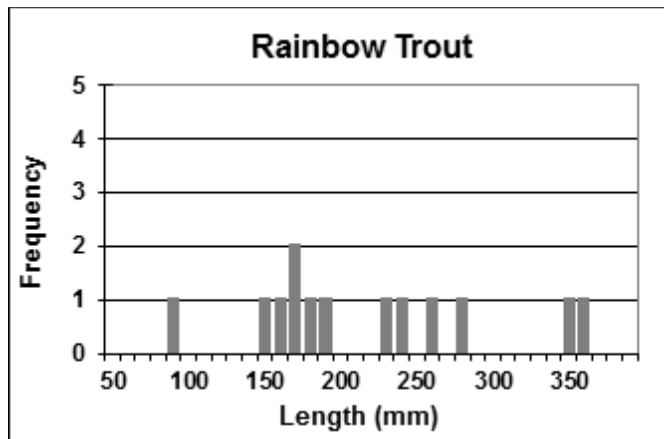


Figure 3: Rainbow trout histogram from July 28–29, 2016, gill net survey at Secret Lake.

LITERATURE CITED:

Jones & Stokes. 2010. Hatchery and Stocking Program Environmental Impact Report/Environmental Impact Statement. State clearinghouse #2008082025.