

Memorandum

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To: Kevin Thomas
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From: Sarah Mussulman
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Cc: Region 2 Fish Files

Subject: Fisheries monitoring in Sierra County – Squaw Lake (12295).

On October 7-8, 2015, California Department of Fish and Wildlife (CDFW) conducted a fisheries monitoring survey at Squaw Lake (CA Lakes ID 12295, Fig. 1) in northern Sierra County. An overnight gill net was set for 17.9 hours and returned no fish. The lake is situated on a bench above Gold Lake in an area with multiple fishery options and a nearby population of native amphibians, therefore CDFW will not resume fish plants at Squaw Lake.



Figure 1: Squaw Lake looking southwest on October 7, 2015 (CDFW).

INTRODUCTION

Squaw Lake is one of two lakes that drain into Gold Lake in Sierra County that were formerly planted with fingerling trout by CDFW (Fig. 2). Little Gold Lake is known to have a persistent population of brook trout, but due to lack of recent fish surveys uncertainty existed about the status of the fishery at Squaw Lake. As directed by the Hatchery Operations EIS/EIR (Jones and Stokes 2010) CDFW is currently evaluating the status of stocked and formerly stocked backcountry fisheries. All data gathered as part of this study are incorporated into the High Mountain Lakes database and made available to both

federal and state agencies. Data from this memorandum will benefit the Department in future efforts for fish stocking and wild trout management in the North Central Region.

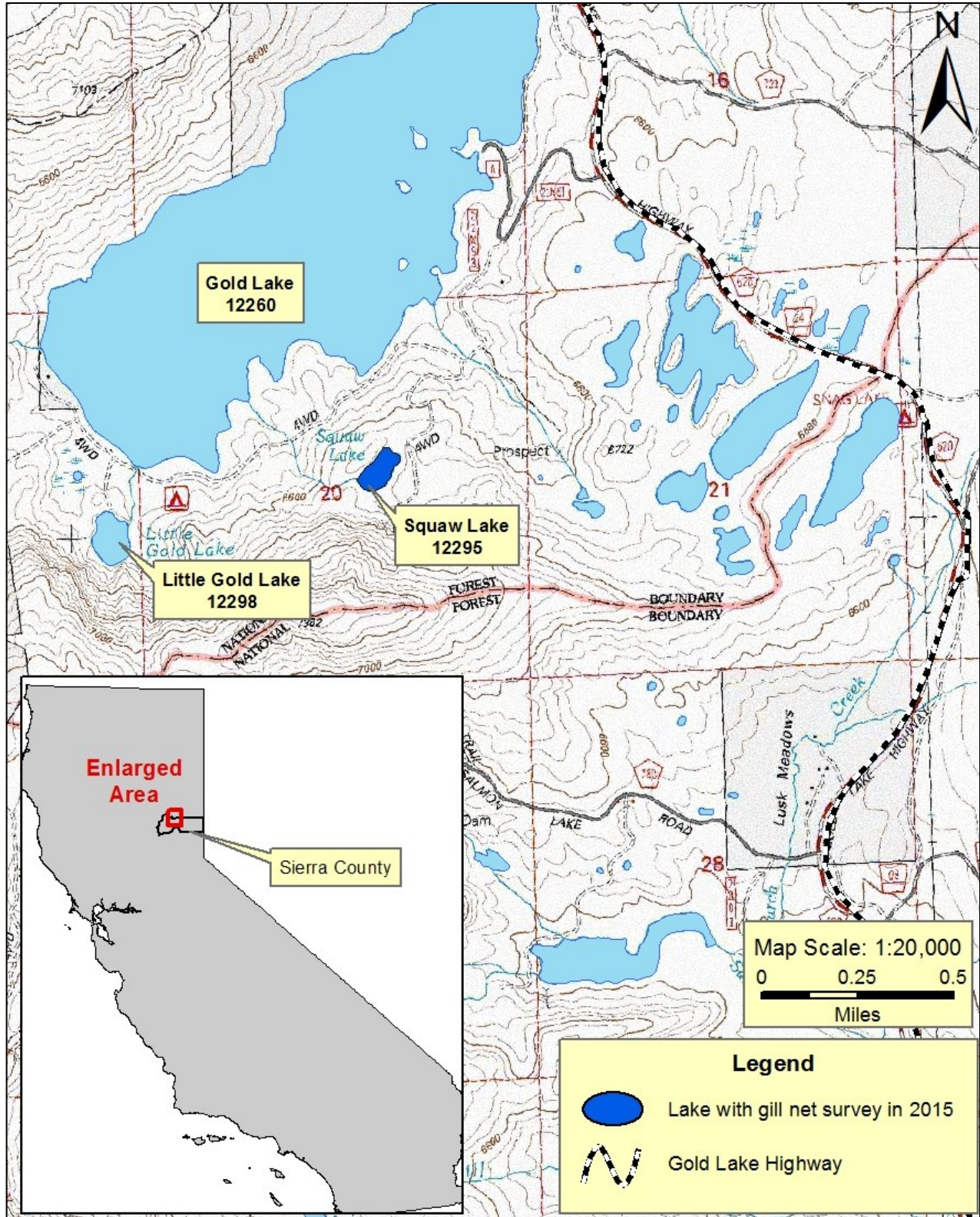


Figure 2: Location of the survey area in northern Sierra County. Dark blue lakes had gill net surveys in 2015.

ENVIRONMENTAL SETTING

Squaw Lake has a surface area of 1.8 hectares and a maximum recorded depth of 7.5 meters. The outlet stream drains into Gold Lake and surveyors did not observe any channelized inlets. Terrestrial habitat consists of mixed conifer forest and meadows at an elevation of approximately 2020 meters above mean sea level. Squaw Lake is easily accessed from a rough 4WD road along the southern shore of Gold Lake. The watershed drains into the Middle Fork Feather River near Grayeagle via Gray Eagle Creek. Plumas National Forest manages the land in the watershed.

RESULTS

On October 7, 2015 a 6-panel, variable mesh gill net was set overnight for 17.9 hours and returned no fish; due to the gill net survey results, CDFW believes the lake is fishless. Most recently, Squaw Lake was planted with brook trout (*Salvelinus fontinalis*) between 1971 and 2000; brook trout were also planted in 1950-1953. Rainbow trout (*Onchorynchus mykiss*) plants occurred between 1953 and 1969. A 2001 CDFW gill net survey captured 4 medium-sized brook trout, suggesting trout might not persist at Squaw Lake in the absence of fish plants. Due to the presence of a nearby population of Sierra Nevada yellow-legged frogs (*Rana sierrae*), CDFW will not resume fish plants at Squaw Lake and the lake will not be actively managed.

LITERATURE CITED:

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