

Memorandum

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Cc: Region 2 Fish Files

Subject: Fisheries monitoring in Plumas County – Elizabeth Lake (11558).

On July 24, 2014, California Department of Fish and Wildlife (CDFW) conducted fisheries and amphibian monitoring surveys at Elizabeth Lake (CA Lakes ID 11558, Fig. 1) in northern Plumas County. Two gill nets were set for a combined 7.3 hours and returned no fish. The lake is remotely located, small and off-trail, therefore CDFW will not resume fish plants at Elizabeth Lake.



Figure 1: Elizabeth Lake looking north on July 24, 2014 (CDFW).

INTRODUCTION

Elizabeth Lake is one of four associated lakes formerly planted with fingerling trout by CDFW in a small watershed in northern Plumas County (Fig. 2). Due to lack of recent fish surveys uncertainty existed about the status of fisheries at Duck, Blue, Elizabeth, and Ridge Lakes. 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 is 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. Elizabeth Lake is addressed in this memo: the other lakes in the watershed will be addressed in separate memos.

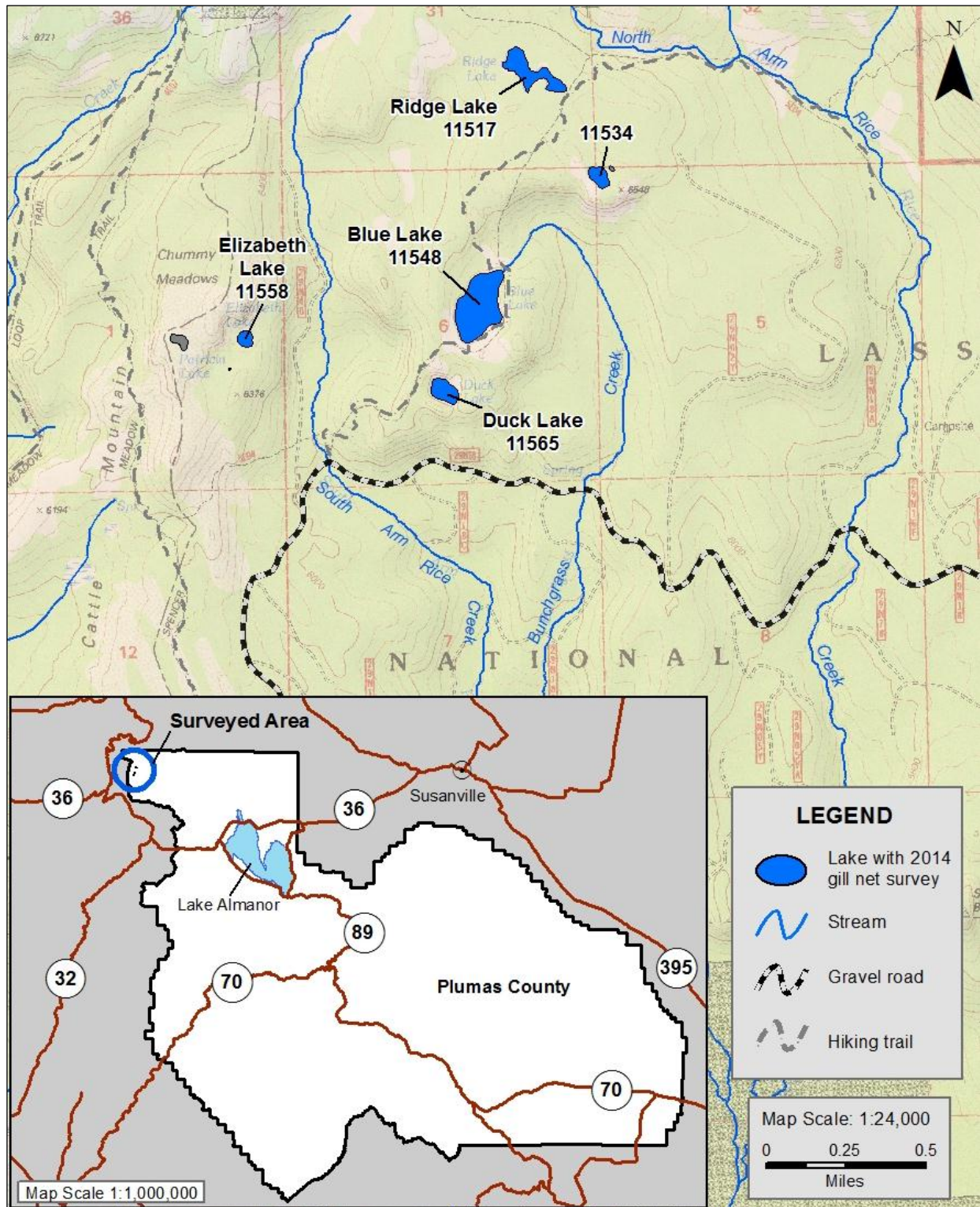


Figure 2: Location of the survey area in northwestern Plumas County. Dark blue lakes had gill net surveys in 2014.

ENVIRONMENTAL SETTING

Elizabeth Lake has a surface area of 0.51 hectares and a maximum depth of 5 meters. Aquatic vegetation is present throughout the lake and littoral zone habitat consists of shallow (0-30cm) water and a mixture of woody debris and silt. Surveyors observed one small outlet stream and no inlet streams. Terrestrial habitat consists of mixed conifer forest and meadows at an elevation of approximately 1920 meters above mean sea level. Access to Elizabeth Lake is via well-maintained gravel roads and a steep cross country hike. Incidentally, crews noted extremely dense forest in this area with large amounts of dead wood on the ground. Additionally, no campsites were seen around the lake. The watershed drains into Rice Creek and eventually into the Feather River. Lassen National Forest manages the land in the watershed.

HISTORY

CDFW conducted regular fishery surveys in this area between 1968 and 1987. Five reports summarize survey results and provide justifications for changes in fish planting (Johnson 1968; Flint 1974; Flint 1975; Flint 1986; Flint 1987). Comments in 1974 suggest much greater public use, noting that 10 people were camped at Blue Lake at the time of the surveys (Flint).

RESULTS

On July 24, 2014 two scientific aides set two standard 36 meter long x 1.8 meter high 6 panel variable mesh gill nets for a combined total of 7.3 hours and captured no fish; due to the size and depth of the lake as well as the gill net survey results, CDFW believes the lake is fishless. Elizabeth Lake is one of four lakes in the watershed formerly planted with trout by CDFW which have not had a fisheries survey since 2002. A 2002 CDFW visual fisheries survey observed no fish but due to the size and depth of the lake the status of the fishery remained uncertain. Elizabeth Lake was planted with rainbow trout (*Onchorynchus mykiss*) from 1958 through 1973.

CDFW conducted amphibian monitoring surveys at Elizabeth Lake on July 24, 2014 and observed 1 long-toed salamander (*Ambystoma macrodactylum*, AMMA) larva. AMMA are listed as a "Species of special concern" by the state of California (Jennings and Hayes, 1994). Due to the presence of AMMA and the likelihood that it is fishless, as well as its remote location and small size, Elizabeth Lake will no longer receive fish plants and will be managed as an amphibian resource.

LITERATURE CITED:

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