

## Memorandum

**Date:** 1/6/2015

**To:** Kevin Thomas  
Senior Environmental Scientist (Supervisor)  
North Central Region

**From:** Sarah Mussulman  
Environmental Scientist – High Mountain Lakes  
North Central Region

**Cc:** Region 2 Fish Files

**Subject: Fisheries monitoring in Plumas County – Duck Lake (11565).**

On July 22-23, 2014, California Department of Fish and Wildlife (CDFW) conducted fisheries and amphibian monitoring surveys at Duck Lake (CA Lakes ID 11565, Fig. 1) in northern Plumas County. An overnight gill net was set for 15.3 hours and returned no fish. The majority of the lake is shallow and may not provide overwintering habitat for fingerling trout, therefore CDFW will not resume fish plants at Duck Lake.



Figure 1: Duck Lake looking southeast on July 22, 2014 (CDFW).

### INTRODUCTION

Duck 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. Duck Lake is addressed in this memo: the other lakes in the watershed will be addressed in separate memos.

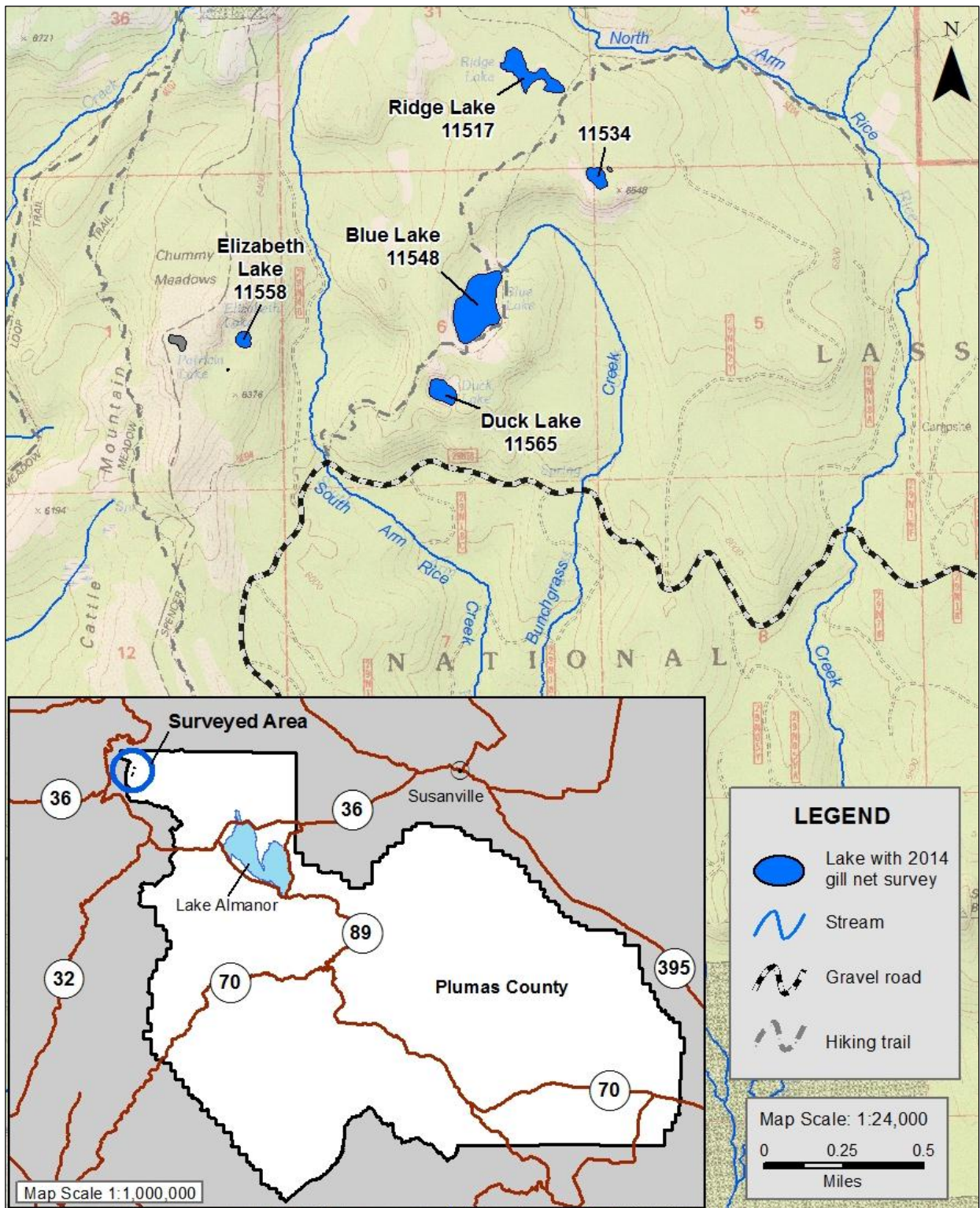


Figure 2: Location of the survey area in northwestern Plumas County. Dark blue lakes had gill net surveys in 2014.

## ENVIRONMENTAL SETTING

Duck Lake has a surface area of 1.26 hectares and a maximum depth of 7 meters, although the majority of the lake is just a few meters deep (CDFW unpublished data, Flint 1986). Aquatic vegetation is present floating around the edges of the lake. Surveyors observed a tributary flowing out of the lake but no inlets. Terrestrial habitat consists of mixed conifer forest and meadows at an elevation of approximately 1900 meters above mean sea level. Access to Duck Lake is via well-maintained gravel roads and a short hike along a trail. Incidentally, crews noted extremely dense forest in this area with large amounts of dead wood on the ground. Additionally, no campsites were observed 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 22, 2014 a CDFW gill net was set for 15.3 hours and returned no fish; due to the gill net survey results, CDFW believes the lake is fishless. Most recently, Duck Lake was planted with brook trout (*Salvelinus fontinalis*) between 1976 and 1983. Rainbow trout (*Onchorynchus mykiss*) plants occurred from 1958 through 1973. No fish were observed during a 2002 visual fish survey, but due to the size and depth of the lake uncertainty remained about the presence of fish. In 1974 5-12" trout were observed at Duck Lake (Flint 1974) but a 1975 gill net survey returned no fish and none were observed that year (Flint 1975) suggesting that fish occasionally do not survive winter at Duck Lake and supporting the 2014 survey results. For these reasons plants will not be resumed at Duck Lake and CDFW will not actively manage the lake.

Incidentally, CDFW conducted amphibian monitoring surveys at Duck Lake on July 22, 2014 and observed 1 adult Pacific tree frog (*Psuedacris regilla*, *Hyla regilla*) and 1 garter snake (*Thamnophis spp*). Water temperature at the surface of the lake was 23° C at the time of survey.

## LITERATURE CITED:

Flint, R. A. Ridge Lake Survey, 1974. California Department of Fish and Game; 3/26/1975. Available from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92710>

Flint, R. A. Ridge Lake File 1975 Management Report. California Department of Fish and Game; 3/10/1976. Available from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92709>

Flint, R. A. Ridge Lakes (Duck, Blue, Ridge) 1986 Management Report. California Department of Fish and Game; 3/24/1986. Available from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92712>



Flint, R. A. Blue Lake, 1987 Survey (Plumas). California Department of Fish and Game; 2/5/1988. Available from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92714>

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

Johnson, R. L. Lake field survey form Blue and Duck Lake 1968. California Department of Fish and Game; 9/19/1968. Available from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92713>