

# Memorandum

**Date:** 12/17/2015

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**Cc:** Region 2 Fish Files

**Subject: Plumas County fisheries monitoring- Star Lake (LakeID: 11513)**

On September 9, 2015, California Department of Fish and Wildlife (CDFW) personnel conducted fisheries and amphibian monitoring surveys at Star Lake (CA Lakes ID 11513 Fig. 1) near Chester, in Plumas County. One gill net was set for a total of 17 hours. The net captured zero fish or amphibians. One garter snake was observed on the shoreline. Due to the lack of fish captured CDFW believes fish are not present in the lake and Star Lake should be returned to the stocking program.



Figure 1. Star Lake looking Northeast on September 9, 2015 (CDFW).

## INTRODUCTION

Star Lake was formerly planted with fingerling trout by CDFW between 1970 and 2000 (Fig. 2). Due to a lack of recent fish surveys uncertainty existed about the status of the fishery at Star Lake. 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.



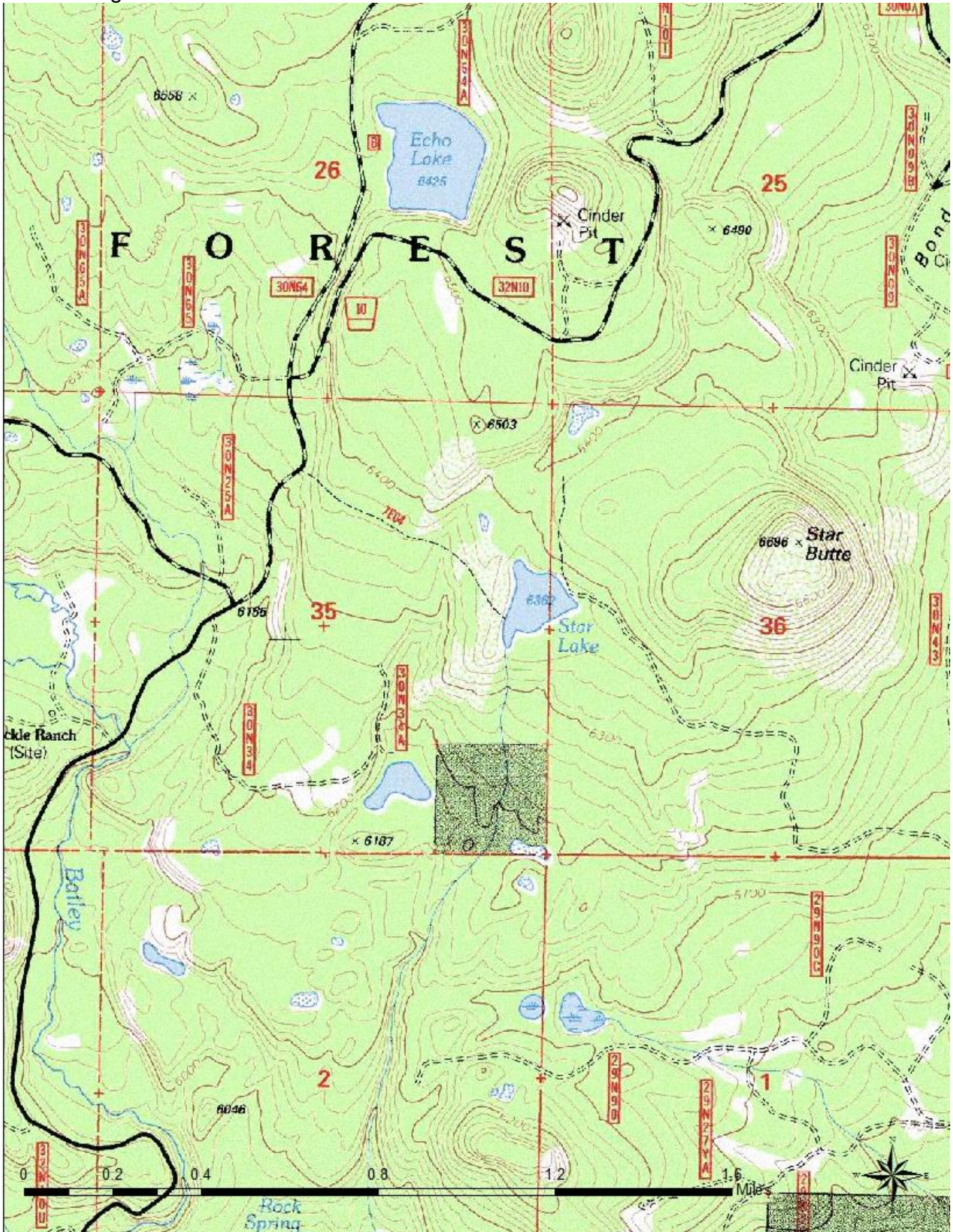


Figure 2. Location of the survey area in northwestern Plumas County.



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## ENVIRONMENTAL SETTING

Star Lake sits at an elevation of 6,365 feet above mean sea level and has a surface area of 10.2 acres. It is a natural lake that is set in a cinder basin. The lake is approximately 6.1 meters deep with a flat, barren bottom and no aquatic plant growth. The littoral zone habitat consists primarily of mud and log debris. An intermittent stream channel comes off of a seasonal outlet on the southernmost portion of the lake and drains to Rock Creek, which ultimately drains to the Feather River. The terrestrial habitat consists of mixed conifer forest. The lake is located in the Lassen National Forest approximately nine air miles northeast of Chester. It can be accessed by a paved road (Forest Route 10) from the west via the Star Lake trailhead or by dirt road via private property from the east.

## HISTORY

Star Lake was planted with brook trout (*Salvelinus fontinalis*) between 1970 and 1973, in 1975, and from 1995 through 2000. Brown trout (*Salmo trutta*) were planted in 1974 and Rainbow trout (*Onchorynchus mykiss*) were planted in 1975. Stocking was discontinued after the year 2000 as part of a project to assess native amphibian and fish distributions throughout the Sierra Nevada (North Central Region Fish Files). The lake was surveyed by gill net in 2002. No fish were captured or observed during this survey. Historic records indicated that the lake once had a spring run of rainbow trout that migrated up from Lake Almanor. The records also documented heavy fishing use and low survival rate. Fish surveys were conducted through the 1950's, 1970's, and 1980's (North Central Region Fish Files).

## RESULTS

On September 9, 2015, one standard 36 meter long x 1.8 meter high 6 panel variable mesh gill net was checked after an overnight set for 17 hours. This effort did not capture any fish. However, one garter snake (*Thamnophis spp.*) was observed on the shoreline during the amphibian survey. Also, several brook trout were observed in the downstream pool of Forest Route 10 Bailey Creek road crossing.

## CONCLUSION

Star Lake was formerly planted with brook, brown, and rainbow trout by CDFW and had not had a fisheries survey since 2002, thus the status of its fishery was uncertain. Most recently, Star Lake was stocked with fingerling brook trout through the year 2000. No evidence of reproduction was observed in 2015 when the gill netting effort resulted in no fish. Based on the historic records and the most recent fish survey, Star Lake should not be managed as a self-sustaining fishery. CDFW should resume fish stocking and collect data in subsequent years in order to determine future management direction.

## LITERATURE CITED

North Central Region Fish Files. Star Lake, Plumas County. California Department of Fish and Wildlife.