

State of California  
Department of Fish and Wildlife

## Memorandum

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Region 2 Fish Files

Subject: **Butte County fisheries monitoring – Sly Creek Reservoir (Lake ID: 12347)**

On July 9-10, 2016, California Department of Fish and Wildlife (CDFW) personnel conducted a fisheries monitoring survey at Sly Creek Reservoir (CA Lakes ID 12347, Fig. 1) near Strawberry Valley (Yuba County), in Butte County. The reservoir was boat electrofished for 1.19 hours which resulted in the capture of 40 spotted bass (SPB) (*Micropterus punctulatus*), 19 green sunfish (GSF) (*Lepomis cyanellus*), three brown trout (BN) (*Salmo trutta*), and one rainbow trout (RT) (*Oncorhynchus mykiss*). Due to species and quantity of fish captured, CDFW will manage the lake as a stocked trout fishery.



Figure 1. Sly Creek Reservoir from the dam, looking northeast on July 10, 2016 (CDFW).

## INTRODUCTION

Sly Creek Reservoir (Fig. 2) was last stocked by CDFW in 1999 with Eagle Lake strain rainbow trout. Local rumors state that “people got tired of not catching fish” and stocked the reservoir with bass a few years back (Sly Creek Campground host). Rainbow trout stocking is scheduled to resume in 2017. Sly Creek Reservoir is a popular roadside recreation area and no fishery surveys have been conducted there in many years. 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 trout management in the North Central Region.



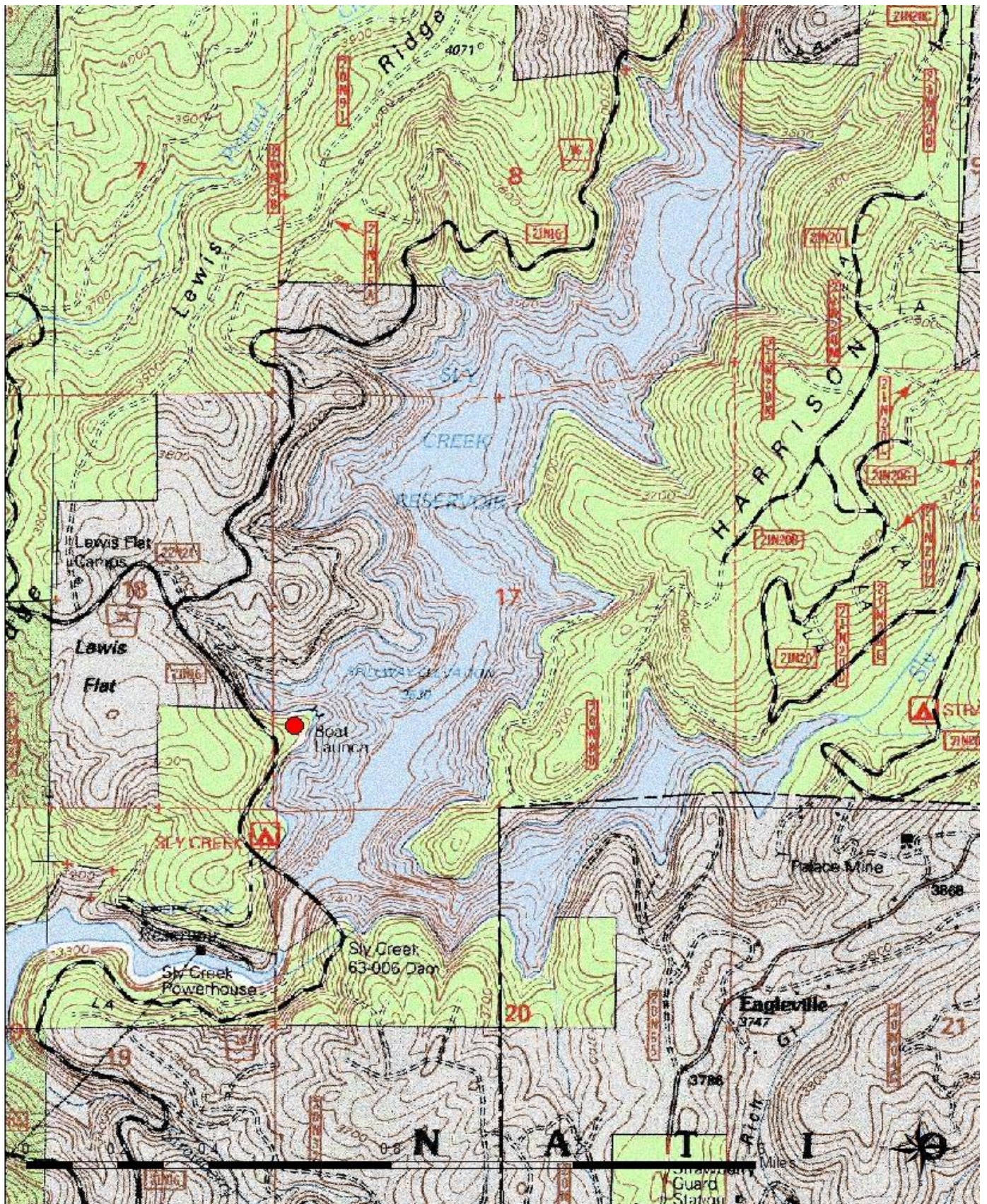


Figure 2. Location of the survey area in eastern Butte County. Portions of the reservoir cross into both Plumas and Yuba Co.



## ENVIRONMENTAL SETTING

Sly Creek Reservoir sits at an elevation of 3,550 feet above mean sea level and has a surface area of 562 acres (USDA Forest Service). The dam is owned and operated by the South Feather Water and Power Agency (SFWPA). The dam was completed in 1961 on Lost Creek, thus impounding water for agricultural purposes, a domestic water supply, and a hydropower generator (SFWPA website). The reservoir drains to the southwest to form Lost Creek Reservoir, which drains to Lost Creek, and ultimately to the South Fork Feather River. Sly Creek Reservoir is situated in the Plumas National Forest on both public and private land approximately 1.25 miles northwest of Strawberry Valley, CA. The lake offers tent camping, RV camping, and a free boat launch (USDA Forest Service). It has heavy recreational use and is one the closest recreational waters to the town of Strawberry Valley at approximately 4.5 miles by paved road, by means of La Porte Road to Lewis Ridge Road.

## HISTORY

Stocking records for Sly Creek Reservoir indicate that the reservoir was formerly planted with rainbow trout, Lahontan cutthroat trout, brown trout, and kokanee from the years 1961 to 1999 (HML Database). Allegedly, the reservoir has suffered from severe draw downs in the past that made it difficult to maintain an adequate coldwater fishery (Schaffer 2005). United States Geological Survey water-year summary reports' surface water records show that the minimum water content observed since the reservoir was first filled was 860 acre-feet in 1976. Maximum water content was 65,600 acre-feet in 1978. The reservoir was completely drained to construct the power plant in 1981 (USGS NWIS). SFWPA general manager stated that "Pacific Gas and Electric Company (PG&E) has operated Sly Creek Reservoir to lower minimum levels in the past, but in the last season they have maintained a higher level to generate more power at Sly Creek Powerhouse" and that they believe PG&E will continue to maintain a higher level in the future to optimize generation output (SFWPA general manager).

## RESULTS

Sly Creek Reservoir was sampled using an SR18 boat electrofisher on July 9-10, 2016, with a total of two sampling events in 2016. Surface water temperature was 72°F during the second sampling event. A total of 1.19 hours of electrofishing occurred during these sampling events, resulting in the capture of a total of 63 fish, of which all were measured. The effort resulted in a CPUE of 52.9 fish per hour. Four species of fish were captured: 40 SPB ranging from 31-413mm total length (TL), 19 GSF ranging from 92-164mm TL, three brown trout ranging from 144-442mm TL, and one rainbow trout at 412mm TL (Table 1). Length frequency for fish measured during the electrofishing events is displayed in a length frequency histogram in Figure 3. Species composition is displayed in Figure 4. The Fulton Condition Factor (K factor) of the BN sampled ranged from 0.90 to 1.50, with an average of 1.24. The K factor of the RT was 1.06.

Table 1. 2016 summary of fish captured in Sly Creek Reservoir using boat electrofishing.

Species	Number Captured	TL Range	TL Mean	Percent of Capture	CPUE
Spotted bass	40	31-413	163	63.5%	33.6
Green sunfish	19	92-164	113	30.2%	16.0
Brown trout	3	144-442	265	4.8%	2.5
Rainbow trout	1	412	412	1.6%	0.8
Total	63	-	-	-	52.9

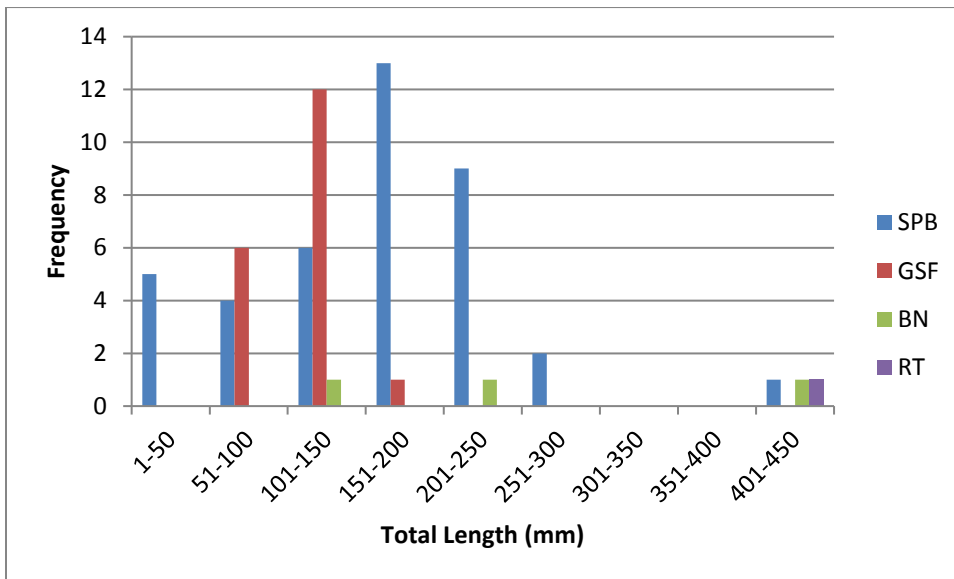


Figure 3. 2016 length-frequency histogram of Sly Creek Reservoir fish species captured using boat electrofishing.

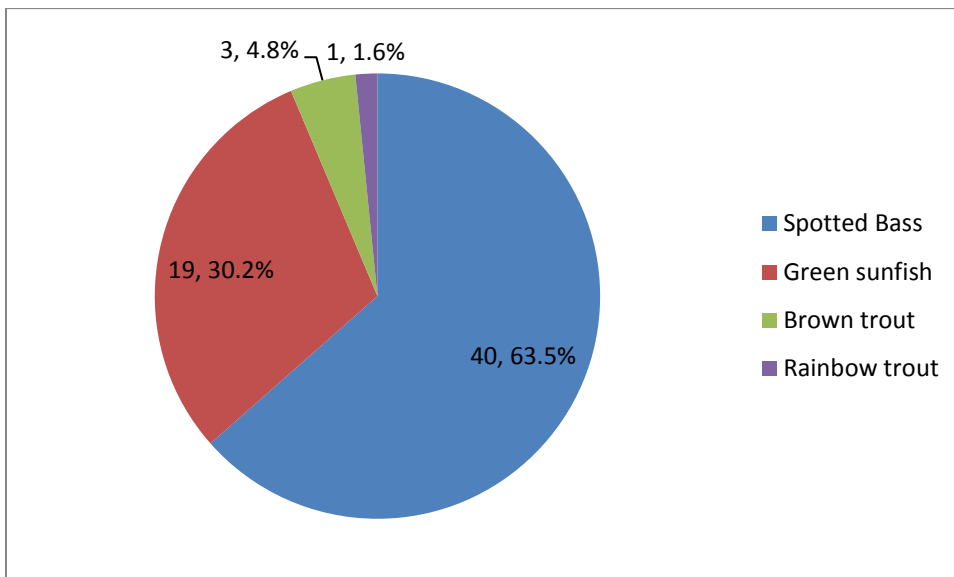


Figure 4. Sly Creek Reservoir species composition.

## CONCLUSION

Sly Creek Reservoir has an abundance of self-sustaining centrarchids (Fig. 5 & 6) and a wild trout fishery (Fig. 7). Based on the 2016 fisheries survey results, the reservoir will be managed as a “put and take” stocked fishery. Stocking Sly Creek Reservoir would provide the closest, year round fishing opportunity for nearby small towns such as Strawberry Valley and will provide additional fishing opportunities for the angling public of larger cities within an hour’s drive such as Quincy, Grass Valley, Marysville, and Oroville which is only 41 miles away. With the relatively easy access, a free boat launch, and recreation facilities provided by the SFWPA, the lake is highly accessible to the public (USDA Forest Service). Augmenting the recreational fishery with catchable sized rainbow trout could significantly enhance the appeal of this waterbody.



Figure 5. Sly Creek Reservoir spotted bass (CDFW July 9, 2016).





Figure 6, Sly Creek Reservoir green sunfish (CDFW July 9, 2016).



Figure 7. Sly Creek Reservoir brown trout (CDFW July 10, 2016).

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