



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
1701 Nimbus Road, Suite A  
(916) 358-2900  
Rancho Cordova, CA 95667  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

**EDMUND G. BROWN JR., Governor**  
**CHARLTON H. BONHAM, Director**



**State of California**  
**Department of Fish and Wildlife**

## **M e m o r a n d u m**

**Date:** June 28, 2017

**To:** Sarah Mussulman  
Sierra District (Fisheries)  
Department of Fish and Wildlife

**From:** Ben Ewing  
District Fisheries Biologist  
Alpine, Amador, Calaveras, and Lake Counties  
Department of Fish and Wildlife

**Cc:** Region 2 Fish Files

**Re:** 2017 Putah Creek Backpack Electrofishing Survey and Demonstration for Lake County Elementary Schools

On May 24, 2017, three California Department of Fish and Wildlife (Department) employees and one volunteer conducted a backpack electrofishing demonstration on Putah Creek (Lake County). The purpose of the demonstration was to inform elementary students as to how the Department uses electrofishing to gather information on fisheries. Multiple electrofishing passes were made on a 75 foot stretch of water at 38° 45' 33.37 N 122 36' 42.67 W situated at 1,083 feet above mean sea level (Figure 1). These passes were in the same location as the 2013 – 2016 surveys.

The shoreline is a mix of grass, rocks, and oak woodland. The creek bottom appears mostly rock. The estimated depth of the creek where the survey was conducted was six inches to one foot. The creek receives water from rain and snowmelt runoff from the Mayacamas Mountain range where it then flows into Lake Berryessa. Rainbow trout (*Oncorhynchus mykiss*) (RT), Sacramento sucker (*Catostomus occidentalis*), riffle sculpin (*Cottus gulosus*), smallmouth bass (*Micropterus dolomieu*), California roach (*Lavinia symmetricus*), green sunfish (*Lepomis cyanellus*), speckled dace (*Rhinichthys osculus*), and Sacramento pikeminnow (*Ptychocheilus grandis*) have been documented in the upper part of Putah Creek before it reaches Lake Berryessa (Ewing 2013, 2014, 2015, 2016).

Table 1 presents the species, number, mean length and weight, and length ranges for species collected from the 2013 - 2017 surveys.

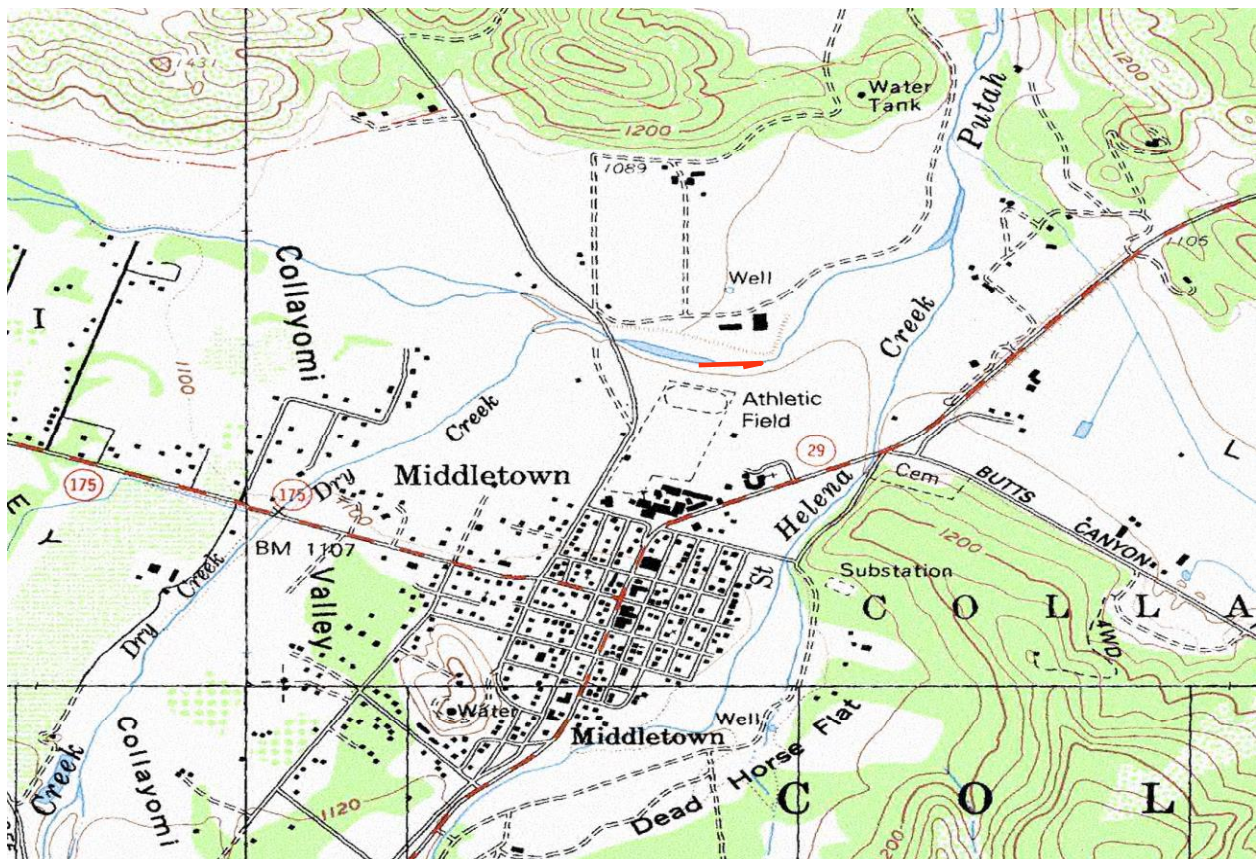


Figure 1. Putah Creek Electrofishing Transect (Lake County, CA).



Species	Length Ranges				
	2017	2016	2015	2014	2013
California roach	38.1 - 63.5	NA	60.0 - 72.0	NA	NA
Rainbow trout	NA	60.0 - 83.0	38.0 - 86.0	50.0 - 84.0	50.0 - 95.0
Riffle sculpin	69.9 - 88.9	NA	35.0 - 51.0	40.0 - 83.0	NA
American bullfrog	NA	NA	NA	NA	35.0 - 115.0
Green sunfish	NA	NA	NA	NA	NA
Sculpin spp.	NA	NA	NA	NA	60.0 - 75.0
Sacramento pikeminnow	NA	NA	NA	NA	NA
Sacramento sucker	25.4 - 120.7	NA	31.0 - 55.0	30.0 - 40.0	NA
Speckled dace	NA	24.0 - 70.0	40.0 - 50.0	NA	NA

	2016	2015	2014	2013
Water Temperature	NA	NA	64° F	66° F
Electrofishing time	NA	19.2 min.	NA	NA
CPUE**	NA	2.24	NA	NA

Weights were only taken on rainbow trout 50 mm and greater, 55 mm and greater for Sacramento sucker, 40 mm and greater for speckled dace, 60 mm and greater for California roach

\*

\*\* More fish were collected but were not identified, measured, or tallied due to time constraints.

\*\*\* No weights were taken in 2017 due to specific reasons.

The 2017 survey yielded more fish than in 2016 and on par with the 24 fish average for the five years the surveys have been conducted. There were no RT for the first time in 5 years. Rainbow trout may have been negatively affected from the large wildfire that impacted the Putah Creek watershed in 2015. The number of Sacramento suckers collected in 2017 was greater than any previous year but species richness was down for a second straight year compared to the first three years' of surveys. It is possible that the September 2015 fire negatively affected not only the RT in the watershed, but other species as well.

## Literature Cited

Ewing, B. 2013. 2013 Putah Creek Backpack Electrofishing Survey and Demonstration for Lake County Elementary Schools. California Fish and Wildlife Region 2 Fish Files. Unpublished.

Ewing, B. 2014. 2014 Putah Creek Backpack Electrofishing Survey and Demonstration for Lake County Elementary Schools. California Fish and Wildlife Region 2 Fish Files. Unpublished.

Ewing, B. 2015. 2015 Putah Creek Backpack Electrofishing Survey and Demonstration for Lake County Elementary Schools. California Fish and Wildlife Region 2 Fish Files. Unpublished.

Ewing, B. 2016. 2016 Putah Creek Backpack Electrofishing Survey and Demonstration for Lake County Elementary Schools. California Fish and Wildlife Region 2 Fish Files. Unpublished.