

Memorandum

Date: 7/3/2020

To: Sarah Mussulman
Senior Environmental Scientist, Supervisor
Department of Fish and Wildlife

From: Ben Ewing
District Fishery Biologist (Alpine, Amador, Calaveras, and Lake Counties)

Subject: **Wolf Creek Lake (14848) and East Carson River Survey**

On June 16, 2020, California Department of Fish and Wildlife (CDFW) fish biologists completed a visual encounter survey (VES) and fish habitat assessment survey at Wolf Creek Lake as well as a recreational fishery survey on the East Carson River, Alpine County. The purpose of the Wolf Creek Lake surveys was to determine if any trout or Sierra Nevada Yellow-Legged Frog (*Rana sierrae*) (SNYLF) inhabited Wolf Creek Lake. The purpose of the East Carson River survey was to gather information on the recreational fishery in the Designated Wild Trout section above the Wolf Creek confluence. There is no record of any trout stockings by CDFW into Wolf Creek Lake. The East Carson River has historically received stockings of Brook Trout (*Salvelinus fontinalis*), Rainbow Trout (*Oncorhynchus mykiss*), Brown Trout (*Salmo trutta*), and Lahontan Cutthroat Trout (*Oncorhynchus clarkia henshawi*), with the last recorded allotment of Rainbow Trout and Lahontan Cutthroat Trout in 2020. The stockings on the East Fork Carson River occur in between Hangman's Bridge and the Silver Creek confluence.

At the time of the survey, Wolf Creek Lake was below capacity and appeared to be very shallow (**Figures 1 and 2**). Weather was sunny and warm during the survey. No species of fish were observed in the lake. During the survey, biologists walked above Wolf Creek Lake and were able to get an aerial view of the lake. It appeared that a large part of the lake was surrounded by *Myriophyllum* sp (**Figures 3 and 4**) (J. Hanson, Personal Communication).

CDFW biologists used the Fellers and Freel (1995) VES Protocol as modified by CDFW to conduct the amphibian survey at Wolf Creek Lake. The VES for Wolf Creek Lake began at 14:41 and ended at 14:56 on June 16. Biologists surveyed the entire lake's shoreline. No amphibians were observed during the VES. CDFW staff conducted a VES and visual fish survey on July 26, 2005 at Wolf Creek Lake in which Sierran Tree Frog (*Pseudacris sierra*), Mountain Garter Snake (*Thamnophis elegans elegans*), and Sierra Garter Snake (*Thamnophis couchii*) were observed (CDFW High Mountain Lakes Database). No SNYLF have been documented at Wolf Creek Lake (California Natural Diversity Database 2020).



Figure 1. Wolf Creek Lake facing east on 6/16/2020 (Photo by B.Ewing).



Figure 2. Wolf Creek Lake facing south on 6/16/2020 (Photo by J. Hanson).



Figure 3. Wolf Creek Lake facing southwest on 6/16/2020 (Photo by J. Hanson).



Figure 4. *Myriophyllum* sp. found at Wolf Creek Lake on 6/16/2020 (Photo by B. Ewing).

Based on the presence of *Myriophyllum sp*, shallow depth, and small surface area, CDFW will not stock Wolf Creek Lake.

From 15:50 to 16:30 on June 16, 2020, three CDFW fish biologists conducted a recreational angling survey on the East Carson River in between the Wolf Creek confluence and the Gray's Crossing vicinity. One Rainbow Trout was caught, measuring 6 – 7 inches in total length. Catch per unit effort was 0.5 fish per hour. The Rainbow Trout appeared to be a wild fish based on size and lack of fin erosion. Although only one fish was caught, multiple fish were hooked during the survey. It is likely the fish hooked or caught in the section surveyed were wild trout due to large distance upstream from the nearest stocking site.

Literature Cited

1. California Department of Fish and Wildlife, High Mountain Lakes Database, June, 2020
Accessed by B. Ewing, CDFW.
2. California Natural Diversity Database. 2020.
3. Fellers, G. M. and K. L. Freel. 1995. A standardized protocol for surveying aquatic amphibians. National Biological Service Cooperative Park Studies Unit, University of California Division of Environmental Studies, Davis, CA. Technical Report No. NPS/WRUC/NRTR95-01 (UC CPSU TR # 58).