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Cc: Fish File

Three Quarter Lake Fish and Amphibian Survey

On August 7, 2018, California Department of Fish and Wildlife (Department) completed a fish and amphibian survey at Three Quarter Lake (Three Quarter). The purpose of the survey was to determine if there were any trout inhabiting the lake from prior stockings, determine if any Sierra Nevada mountain yellow-legged frog (SNYLF, *Rana sierra*) were present, and to assess if the lake could be added to the Department fish stocking list.

Three Quarter is a five acre lake in Alpine County located at 38.446376 N, 119.977618 W situated at 6,955 feet above mean sea level (Figure 1). The shoreline is a mix of bedrock and conifer forest (Figure 2). The lake bottom appears mostly silt and various sized rock substrate. At the time of the survey Three Quarter looked approximately two feet down from the high water mark. No inlet or outlet was found at Three Quarter. Three Quarter receives water from rain and snowmelt runoff from the immediate area. Three Quarter has historically received fingerling-size stockings of brook trout (*Salvelinus fontinalis*), rainbow trout (*Oncorhynchus mykiss*), and golden trout (*Oncorhynchus mykiss aguabonita*), with the last recorded allotment of brook trout in 2000.

A 120 foot long variable mesh size gillnet was set at 11:02 on August 7, on the southern part of the lake's shoreline extending towards the middle of the lake (Figure 1). The depth of the ending point of the gillnet was 6.1 meters. The gillnet was pulled at 17:02 on August 7, in which the water temperature was 70°F. No fish were collected.



Figure 1. Three Quarter Lake (Circled in Red), with gillnet set location indicated by red line on August 7, 2018 in Alpine County.



Figure 2. Three Quarter Lake shoreline (B. Ewing, 8/7/2018).

Department personnel used the Fellers and Freel 1995 Visual Encounter Survey (VES) Protocol as modified by the Department to conduct the amphibian survey at Three Quarter. The VES for Three Quarter began at 11:30 and ended at 11:43 on August 7, where the entire lake's shoreline was surveyed. No amphibians were observed during the VES. Although no amphibians were observed during the VES at Three Quarter and nearby waters, one Sierran tree frog (*Pseudacris sierra*) was observed swimming prior to the survey in Three Quarter. No SNYLF have been documented at Three Quarter Lake (CNDDB 2018).

Department personnel also conducted a VES at two smaller, pond/lakes that were on both sides of Three Quarter Lake, which had no name. For the purpose of this report, we will call them Three Quarter One Lake and Three Quarter Three Lake. The VES for Three Quarter One Lake (38.446090 N, 119.979047 W) began at 12:34 and ended at 12:37 where the entire lake shoreline was surveyed (Figure 3). Water temperature was 66°F. No amphibians were observed during the VES.

The VES for Three Quarter Three Lake (38.446954 N, 119.976510 W) began at 12:47 and ended at 13:02 where the entire lake shoreline was surveyed (Figure 4).

Water temperature was 70°F. One Sierran tree frog (*Pseudacris sierra*) was observed (Figure 5).

Based on the results of the evaluations completed, a pre-stocking evaluation will be written to add Three Quarter Lake to the Department fish stocking list.



Figure 3. Three Quarter One Lake, Alpine Co. (B. Ewing, 8/7/2018).



Figure 4. Three Quarter Three Lake, Alpine Co. (B. Ewing, 8/7/2018).



Figure 5. Sierran tree frog collected at Three Quarter

Three Lake, Alpine Co. (B. Ewing, 8/7/2018).

Literature Cited:

1. California Natural Diversity Database. 2018.
2. 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).

