State of California
Department of Fish and Wildlife

M e m o r a n d u m

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To: Sarah Mussulman
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Subject: Devils Lake (14908) Fish and Amphibian Surveys

On July 22 and 23, 2020, California Department of Fish and Wildlife (Department) personnel completed an amphibian and fish survey at Devils Lake. The purpose of the surveys was to determine if any Sierra Nevada yellow-legged frog (SNYLF) (*Rana sierra*) and fish were present, and to assess if the lake could be added to the Department fish stocking list.

Devils Lake is located in Amador County (38.582166 N, 120.185695 W), situated at 7,193 feet above mean sea level (**Figure 1**). The majority of shoreline is a mix of rock, grasses, and conifers (**Figures 2 and 3**). The lake bottom appears mostly made up of various sized rock substrate including bedrock (**Figure 4**). On July 22, both the inlet and outlet to Devils Lake were dry, including thick vegetation at the outlet (**Figure 5**). Devils Lake receives water from rain and snowmelt runoff from the immediate area. Devils Lake has historically received fingerling-size stockings of Brook Trout (*Salvelinus fontinalis*), Rainbow Trout (*Oncorhynchus mykiss*), Brown Trout (*Salmo trutta*) and Arctic Grayling *(Thymallus arcticus)*, with the last recorded allotment of Brook Trout in 1999. A Department gill net survey and visual encounter survey in 2002 captured two Brook Trout with Mountain Gartersnake (*Thamnophis elegans elegans*) and Sierra Gartersnake (*Thamnophis couchii*) observed (High Mountain Lakes (HML) Database). A Department gill net survey and visual encounter survey in 2014 captured no trout with Sierran Treefrog (*Pseudacris sierra*) and Sierra Gartersnake observed (HML Database).

On the morning of July 22, Department personnel set a 100 foot-long variable mesh size gillnet at 10:33, on the northwestern part of the lake's shoreline extending towards the middle of the lake. Water temperature at 10:51 on July 22 was 75.6°F. Personnel pulled the gillnet at 12:00 on July 23 (**Figure 6**). No fish were collected.

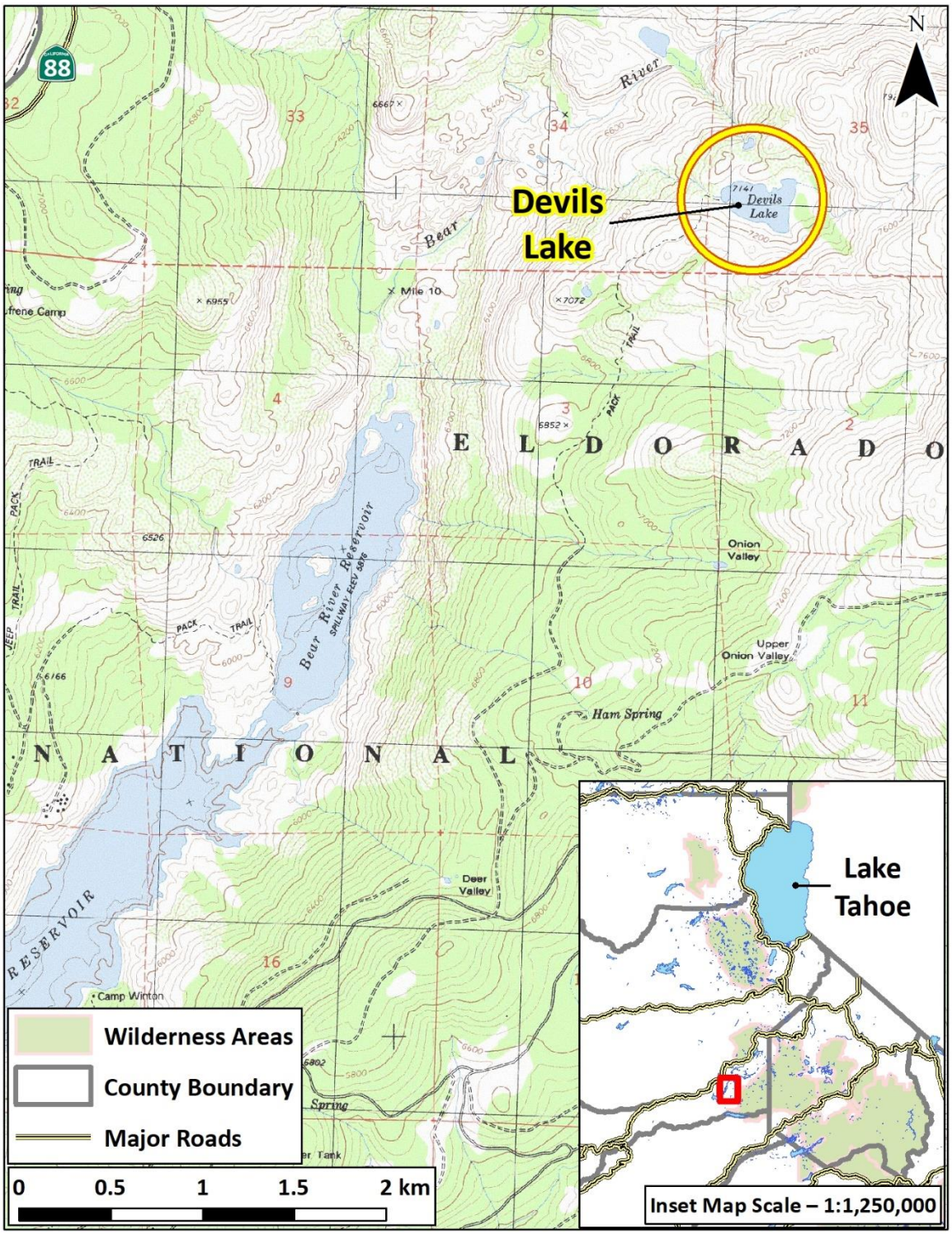

Figure 1. Devils Lake, Amador County. The area encompassed by the topographic map is highlighted in red in the smaller scale map of the greater Lake Tahoe area.

Figure 2. Devils Lake, Amador County, CA (7/22/2020) (Department photo).

Figure 3. Devils Lake, Amador County, CA (7/22/2020) (Department photo).

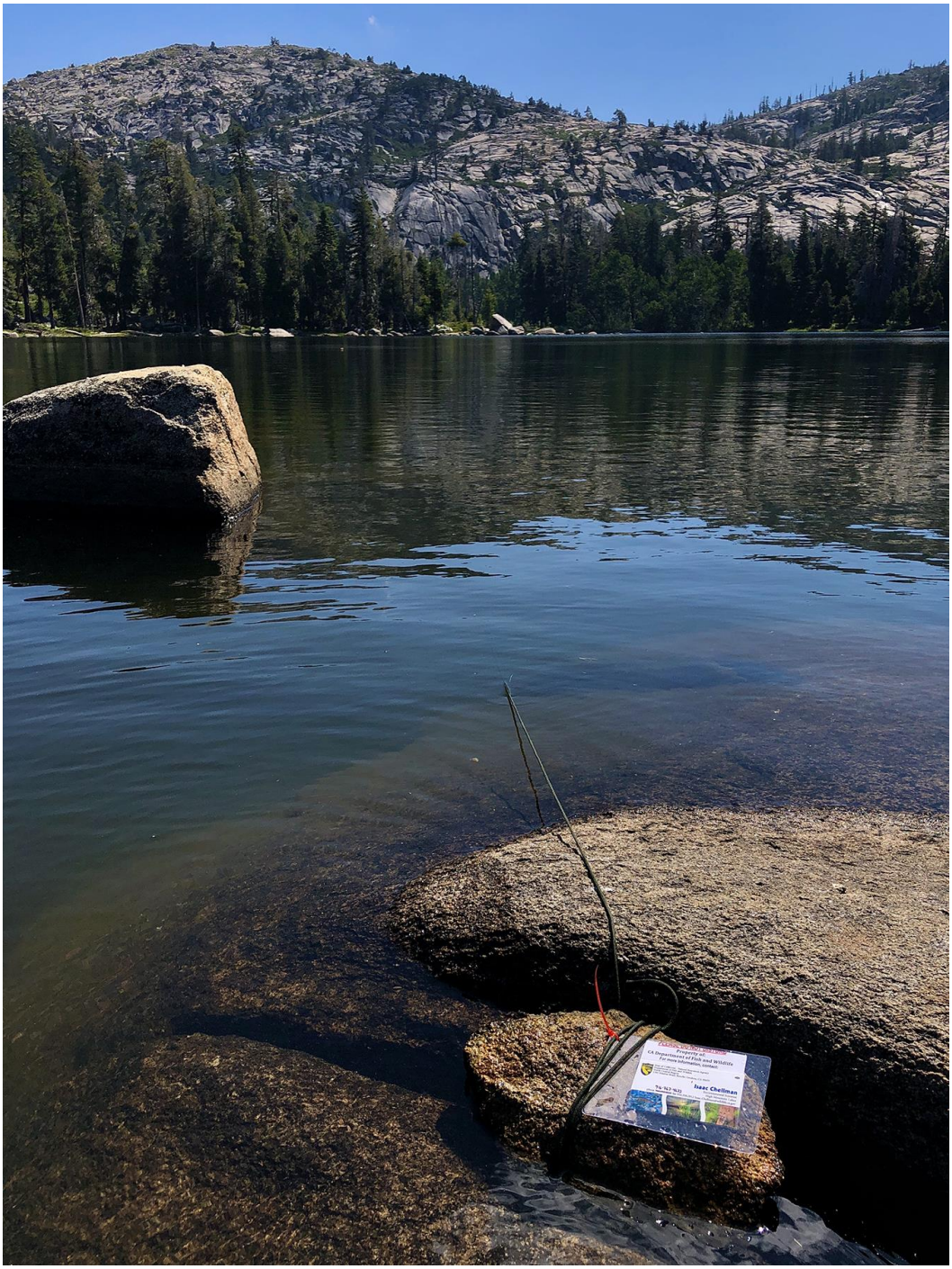

Figure 4. Devils Lake, Amador County, CA (7/22/2020) (Department photo).

Figure 5. Upstream end of the Devils Lake outlet stream (7/22/2020). During the survey, the outlet was dry and completely covered in thick vegetation, which made effective surveying impossible (Department photo).

Figure 6. Department environmental scientist, Isaac Chellman, retrieving a gillnet (7/23/2020) (Photo by B. Ewing).

To conduct the amphibian survey at Devils Lake, Department personnel used the Fellers and Freel 1995 Visual Encounter Survey (VES) Protocol, as modified by the Department. The VES for Devils Lake began at 10:55 and ended at 12:00 on July 22, during which personnel surveyed the entire shoreline. Personnel observed one adult Sierra Gartersnake and one adult Mountain Gartersnake. In total, during three separate VES in 2002, 2014, and 2020, the Department has not documented any SNYLF at Devils Lake (CNDDB 2020).

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

Literature Cited:

1. California Department of Fish and Wildlife, High Mountain Lakes Database, November 23, 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).