



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
Senior Environmental Scientist, Supervisor
California 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: Clear Lake hitch fish rescue from Cole Creek, Lake County

On May 9, 2018, California Department of Fish and Wildlife (Department) personnel, along with members from the Robinson Rancheria at Clear Lake, conducted a fish rescue on Cole Creek (Lake County). The purpose of the rescue was to capture and relocate Clear Lake hitch (*Lavinia exilicauda chi*) (HCH-C), a threatened species under the California Endangered Species Act (CESA). All HCH-C that were rescued were released at Clear Lake State Park where Cole Creek enters Clear Lake.

Prior to May 9, 2018, a section of Cole Creek occupied by numerous young of the year HCH-C was identified by a member of the Robinson Rancheria at Clear Lake who continued to closely monitor the area. By early May, the creek level was dropping daily, and it appeared that the area containing the HCH-C was likely to dry completely in the near future. Additionally, Cole Creek was no longer had a continuous flow, but rather was broken up into isolated pools (Figure 2). On May 9, 2018, a member of the Department and three members of the Robinson Rancheria, assessed and conducted a fish rescue on a small pool that was drying up in Cole Creek, downstream of the Clark Road Crossing (Figure 1). Approximately 3,114 HCH-C were collected using various sized dip nets and placed into a cooler with an operating aerator (Figures 2 and 3). The fish were then transported downstream to better habitat near the confluence with Clear Lake.

Due to the large number of HCH-C collected and the added stress of measuring HCH-C, the Department chose to exclude that from the rescue. Approximately 500 mortalities were documented at the release site. It is likely the high air and water temperature (no official temperatures were taken), combined with the fragile nature of HCH-C at this early life stage contributed to the high mortality rate. Although there were more mortalities than the Department and the tribe would have preferred, there would have been 100% mortality if the Department and tribe had not worked together on this rescue.



Figure 1. Cole Creek rescue site and release site at Clear Lake State Park, Lake County on May 9, 2018.



Figure 2. Fish rescue site on Cole Creek, Kelseyville, Lake County (5/9/2018).



Figure 3. Robinson Rancheria tribal member moving hitch from Cole Creek pool to aerated cooler, Kelseyville, Lake County (5/9/2018).

