



State of California
Department of Fish and Wildlife

M e m o r a n d u m

Date: November 28, 2016

To: Sarah Mussulman
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Department of Fish and Wildlife

From: Ben Ewing
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Alpine, Amador, Calaveras, and Lake Counties
Department of Fish and Wildlife

Cc: Region 2 Fish Files

Re: 2016 Kirkwood Creek Backpack Electrofishing Survey

On November 18, 2016, two California Department of Fish and Wildlife (Department) fish biologists conducted a backpack electrofishing survey on Kirkwood Creek (El Dorado, Amador, and Alpine Counties). The purpose of the survey was to gather information on the fishery. Information collected will be available for uses such as Department habitat conservation planning, evaluation of potential resource impacts from pollution, and recommendations for Kirkwood Resort's future creek restoration work and environmental stewardship efforts. A single electrofishing pass was made on an approximately 1800 foot stretch of water beginning at 38.70373 N 120.07115 W at 10:22 and ending at 38.70191 N 120.07389 W at 13:08 (Figure 1). The location of the survey was at 7,695 feet above mean sea level.

The shoreline of Kirkwood Creek, in the survey area, was a mix of willows, rocks, and montane hardwood-conifers in a meadow setting. The creek bottom was mostly cobble, gravel, and sand (Figure 2). The estimated depth of the majority of the creek where the survey was conducted ranged from approximately two to eight inches with a few deeper holes. The creek receives water from snowmelt and rain runoff from the local area where it then flows into the Caples Creek. Brook trout (*Salvelinus fontinalis*) and brown trout (*Salmo trutta*) have been documented in Kirkwood Creek in the same area where this survey took place (Hausler 1974).

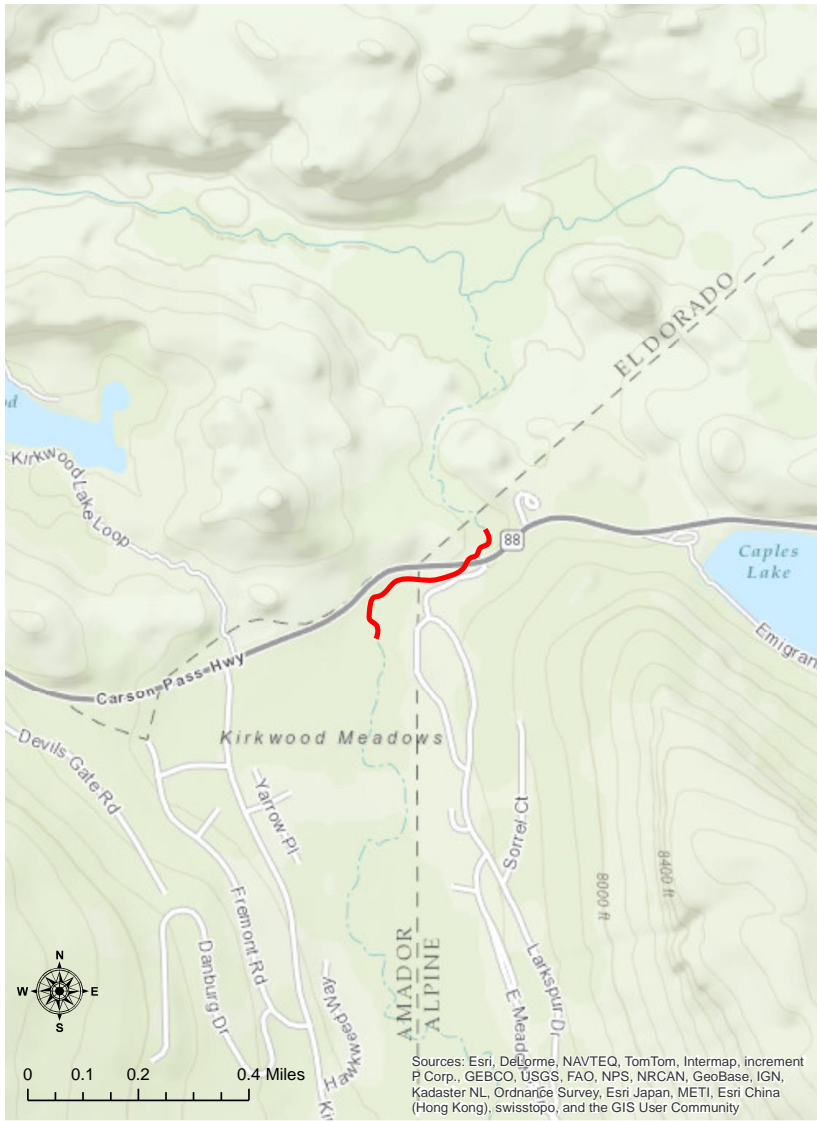


Figure 1. Kirkwood Creek Backpack Electrofishing Transect (11/18/2016).

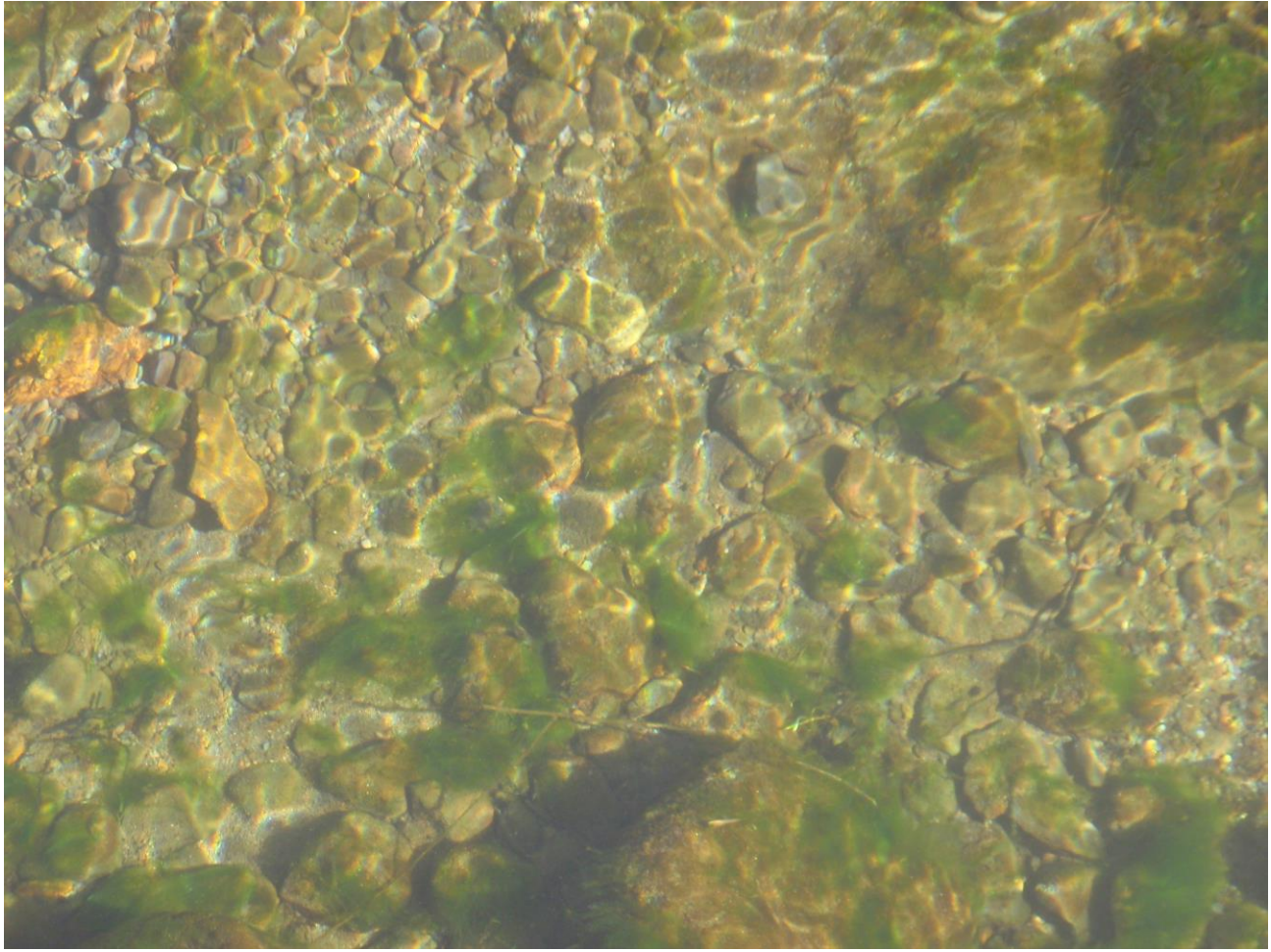


Figure 2. Kirkwood Creek (J. Hanson, 11/18/2016)

The survey yielded a total of 219 brook trout with no other fish species collected (Figure 3). Average total length of the 125 brook trout measured was 106.3 mm (4.2 in.). Lengths of brook trout measured ranged from 59 – 231 mm (2.3 – 9.1 in.) with the greatest number being collected in the 100 mm (3.9 in.) length class (Figure 4). A total of 3591 backpack shocking seconds (59.9 minutes) were conducted, resulting in a catch per unit effort of 3.7 fish/minute.



Figure 3. Brook trout collected from Kirkwood Creek (B. Ewing, 11/18/16).

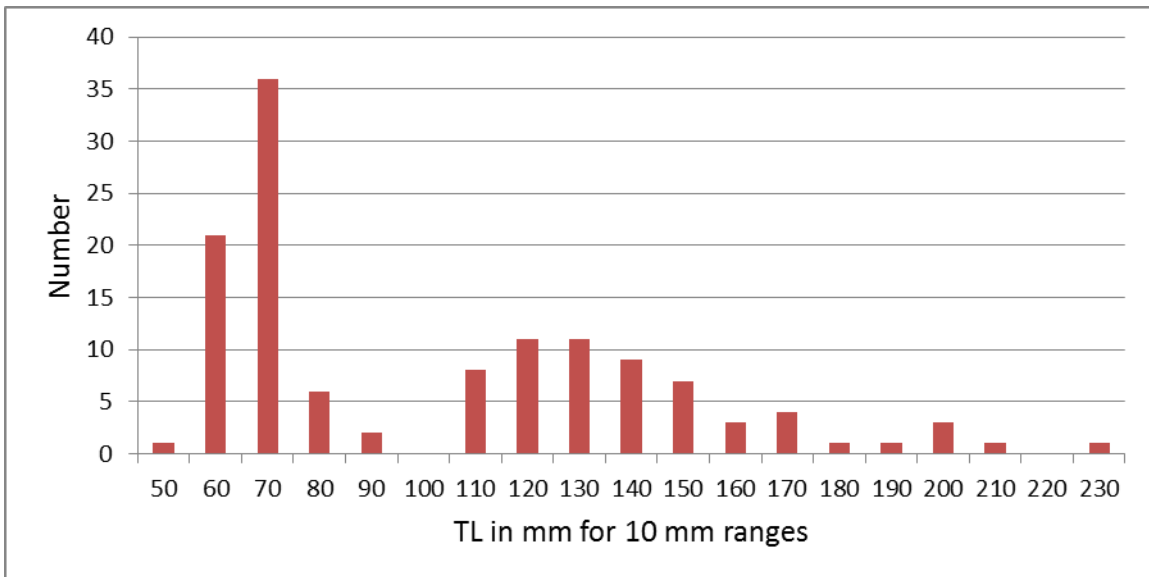


Figure 4. Length-frequency distribution for brook trout collected by electrofishing on Kirkwood Creek, November 18, 2016.

Literature Cited:

Hausler, R. B. Kirkwood Creek Electrofishing. 1974. Unpublished. California Fish and Wildlife Fish Files.