



State of California
Department of Fish and Wildlife

M e m o r a n d u m

Date: December 28, 2017

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

Cc: Region 2 Fish Files

Re: 2017 Kirkwood Creek Backpack Electrofishing Survey

On October 20, 2017, California Department of Fish and Wildlife (Department) staff conducted a backpack electrofishing survey on Kirkwood Creek (El Dorado, Amador, and Alpine Counties). The purpose of the survey was to gather population data on the brook trout (*Salvelinus fontinalis*) fishery due to an earlier petroleum-based pollution incident that happened previously. 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 three-pass electrofishing depletion effort was made on an approximately 1,721 foot stretch of water beginning at 38.70379 N 120.071 W and ending at 38.70184 N 120.074 W (Figure 1). The survey initiated at 10:05 and concluded at 15:35. The location of the survey was at 7,695 feet above mean sea level.

The shoreline of Kirkwood Creek, in the survey area consists of a mix of willows, rocks, and montane hardwood-conifers in a meadow setting. The creek bottom is 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 and brown trout (*Salmo trutta*) have been documented in Kirkwood Creek in the same area where this survey took place (Hausler 1974).

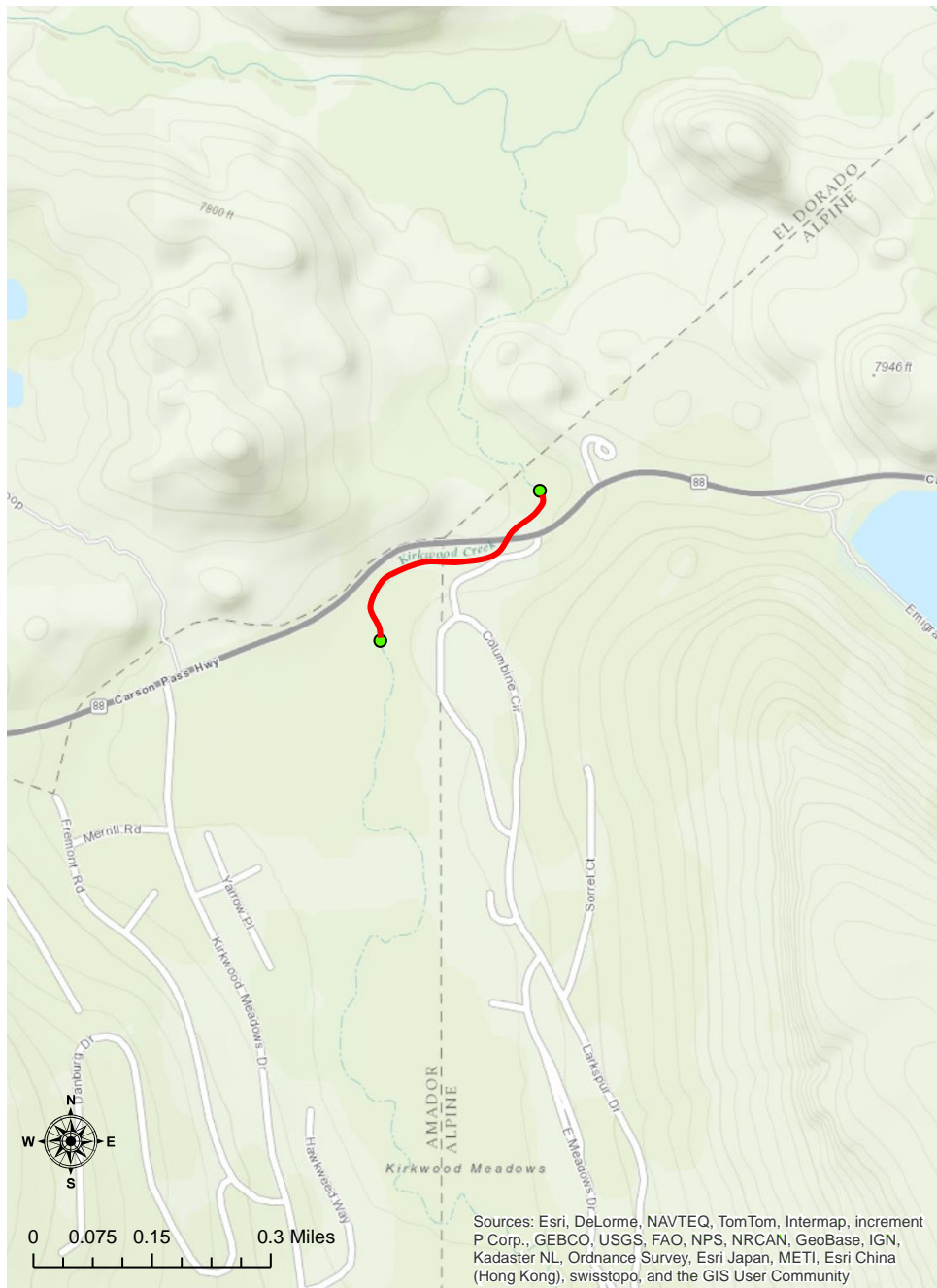


Figure 1. Kirkwood Creek Backpack Electrofishing Transect (10/22/2017).

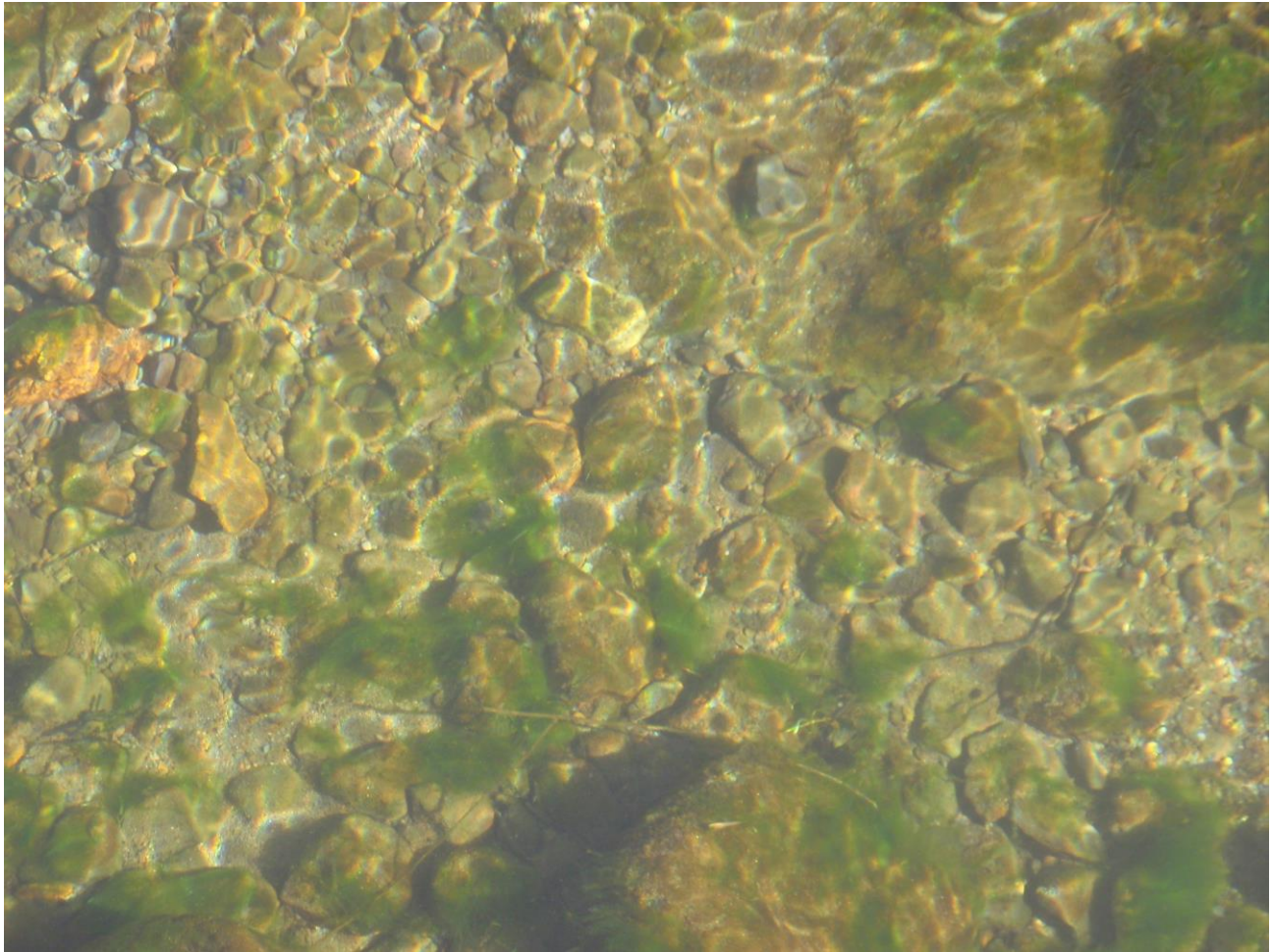


Figure 2. Kirkwood Creek (J. Hanson, 11/18/2016).

The survey yielded a total of 283 brook trout on the first pass, 179 on the second, and 78 on the third pass, for a total of 540 brook trout with no other fish species collected. Using MicroFish 3.0, the population of the brook trout in the sections surveyed was 643 ± 47 using 95% confidence intervals. Average total length of the 101 brook trout measured was 125.4 mm (4.9 in.). Lengths of brook trout measured ranged from 58 – 209 mm (2.3 – 8.2 in.).

Literature Cited:

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

