

## Memorandum

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To: Kevin Thomas  
Senior Environmental Scientist, Supervisor  
Department of Fish and Wildlife

From: Ben Ewing  
District Fishery Biologist (Alpine, Amador, Calaveras, and Lake Counties)

### **Subject: Ice House Reservoir Gillnet Survey June 5 and 6, 2014**

Ice House Reservoir, located in El Dorado County, is a 678 surface acre, 45,960 acre foot reservoir located at 5450 above mean sea level in the Eldorado National Forest north of Highway 50 (Figure 1). Ice House Dam impounds the South Fork of Silver Creek which is part of the South Fork American River drainage. This tributary provides the primary spawning habitat for salmonid species in the reservoir.

From 1960 to 2014, The California Department of Fish and Wildlife (Department) has stocked Ice House Reservoir with rainbow trout (*Oncorhynchus mykiss*), kokanee salmon (*Oncorhynchus nerka*), brown trout (*Salmo trutta*), and brook trout (*Salvelinus fontinalis*) to provide recreational angling opportunities and supplement natural production. Currently, the Department employs a put-and-take rainbow trout fishery. Few brown trout and rainbow trout were captured during the survey. The Department was not expecting a high number to be collected due to their pelagic nature during this time of year. Other methods such as spawning and angler surveys are more utilitarian for evaluating these two species' population status and angler harvest rates.

On June 5 and 6, scientific aides Kevin Langham, Ben Onanian, Nick Hood, and Kassie Hickey conducted a first phase general fish survey via gillnet. The purpose of this first phase sampling effort is to gather basic fisheries information at low cost, an effort which will guide fisheries managers in making management decisions or guide further research and assessment efforts if necessary. Two variable mesh gillnets were set in the southeast and south ends of the lake in 2014 in order to conduct a general fish survey (Figure 1). The net sets were perpendicular to the shoreline for a distance of approximately 100 feet. Set time for gillnet one was 19:10 on June 5, 2014 and pull time was 08:30 on June 6, 2014. Water temperature was 66°F. Set time for gillnet two was 19:25 on June 5, 2014 and pull time was 08:15 on June 6, 2014. Water temperature was 67°F. Fish captured were identified to species and measured to the nearest millimeter total length.

Two species of fish, brown trout and rainbow trout were collected during the survey with only seven fish total. Gillnet #1 contained three brown trout, measuring 520 mm (20.5 in.), 415 mm (16.3 in.), and 450 mm (17.7 in.) and one rainbow trout measuring 365 mm (14.4 in.). Gillnet #2 contained two rainbow trout measuring 357 mm (14.1 in.) and 331 mm (13.0 in.) and one brown trout measuring 570 mm (22.4 in.). The low number of fish captured prevents robust statistical analysis.

Overall, the results of this general fish survey do not give the Department a lot of information on the fisheries. Conducting this survey in the early spring and/or fall when water temperatures are generally cooler, and fish tend to be up shallower where gillnets can sample them could help if this survey is repeated.

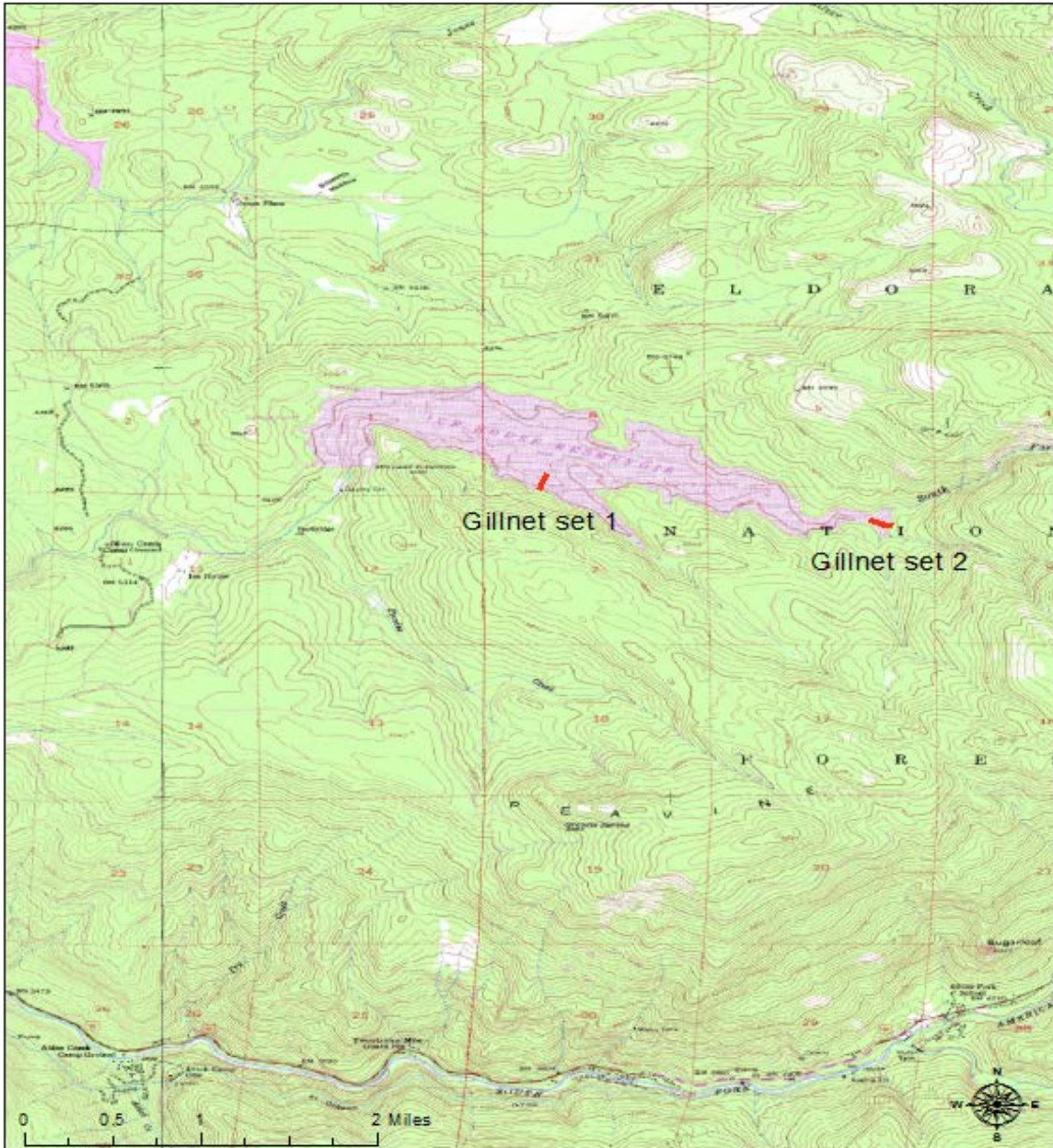


Figure 1. Ice House Reservoir and location of gillnet sets June 5 and 6, 2014.