



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2003NV39B

Title: A Study of Ancient Trees Rooted 120 Feet Below the Surface Level of Fallen Leaf Lake

Project Type: Research

Focus Categories: Climatological Processes, Drought, Management and Planning

Keywords: climate, drought, submerged trees

Start Date: 03/01/2003

End Date: 02/28/2004

Federal Funds: \$14369.00

Matching Funds: \$33118.00

Congressional District: 02

Principal Investigators: Kleppe, John A.

Abstract: The author of the proposal, Professor Kleppe, has discovered large trees rooted at a depth of 120 feet below the existing surface level of Fallen Leaf Lake. Fallen Leaf Lake is one of the major watershed areas for Lake Tahoe. Some of these trees measure over 80 feet tall with a circumference of 15 feet, which is an indication that they were over two hundred years in age when they died. Carbon dating has shown that the trees died simultaneously in 1215 A.D. The significance of this discovery is the fact that for these trees to be rooted 120 feet below the surface of the lake, the lake must have been down at least 120 feet for over two hundred years. This would indicate that a "mega drought" had occurred. It is critical that these trees be studied and that tree ring data be gathered to determine whether or not there were wet or relief periods during these drought periods. It may be possible to learn more about the cyclic nature of these "mega droughts". If another such drought were to occur in modern times, it would devastate the affected regions.

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