Lake Tahoe part of study on Rim Fire's smoke impacts

By Heather Segale

On Aug. 17, the largest recorded wildfire in the Sierra Nevada and the third largest in California history started in Stanislaus National Forest. This devastating fire burned more than 250,000 acres and took two months to contain.

The effects of the fire on the terrestrial ecosystem will certainly last for years. Here at TERC, the question is to what extent were Sierra lakes impacted?

Smoke was a constant in Tahoe for much of August 2013. Photo/LTN file

In October TERC researchers received a National Science Foundation – Rapid Response Grant to assess the effects of the Rim Fire on lakes in Northern California. It is a one-year study to look at water quality and ecological changes in lakes affected by the wildfire.

TERC is studying two lakes, Cherry Lake and Lake Eleanor, within the heart of the burn area and several lakes to the north that were impacted by smoke during the fire event, including Lake Tahoe, Emerald Bay, and Cascade Lake. Rock

Creek Lake just south of Mammoth will serve as the control lake since it was not impacted by the fire or smoke.

UC Davis is collaborating in the study with Miami University, Ohio; Stony Brook University, New York; UNR; and UC Santa Barbara.

Initial assessment of the water quality and zooplankton community was completed in late October, prior to the first snow. The science team will return following a weather event that causes dramatic runoff, or during the spring snowmelt.

The research is focused on how the lakes respond to the organic compounds contained in the smoke from wildfires. The results will have importance to the entire west, with expectations for increases in wildfires due to climate change.

Heather Segale is the education and outreach director for the UC Davis Tahoe Environmental Research Center in Incline Village.