
Lahontan Regional Water Quality Control Board

News Release

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Key Study Launched to Understand Increased Algae Growth in Lake Tahoe

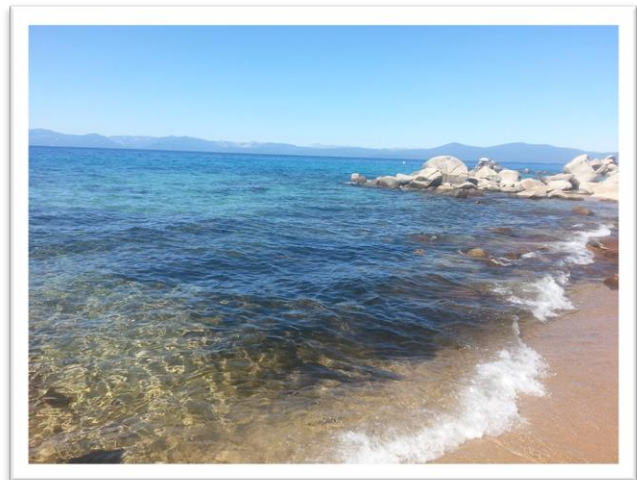
LAKE TAHOE, Nev. – The U.S. Geological Survey and the University of Nevada, Reno, will study the cause of eutrophication, or increased algae growth, along the nearshore of Lake Tahoe. Supported by California’s Lahontan Regional Water Quality Control Board, the investigation is in response to widespread concerns with water quality and ecological degradation of the lake’s nearshore environment.

“This study will provide important information on the most influential variables controlling the growth of algae in Lake Tahoe,” said USGS Scientist Rich Niswonger. “It could ultimately provide the context for managing activities that degrade water quality in the Tahoe Basin.”

Over the last decade, nearshore periphyton growth, a form of algae, has increased dramatically in Lake Tahoe. The lake’s fragile environment continues to be threatened by a changing climate and introductions of invasive species. The study will investigate the relationship between algae growth and sources of nutrients on the west shore of Lake Tahoe, north of Ward Creek.

“Periphyton is a water quality problem and a public health risk to those who recreate near and in Lake Tahoe,” said Patty Kouyoumdjian, executive officer for the Lahontan Regional Water Board. “Once the investigation is done, we can develop regulatory and management tools to reduce periphyton growth in the nearshore of Lake Tahoe.”

The investigation is a key component of the Lahontan Water Board’s [Lake Tahoe Nearshore Water Quality Protection Plan](#). The plan was released in 2014 to help guide management of Lake Tahoe and



Algae is seen here along the nearshore at Chimney Beach, Lake Tahoe. Photo by Ramon Naranjo/USGS NV Water Science Center.

establish nearshore water quality protection policies. The 10-month algae study will sample nutrient concentrations and other important chemical and physical parameters at five sections of the lake. The findings will be used to distinguish whether elevated nutrient concentrations, a cause of increased algae growth, are from Ward Creek spring runoff, other on-shore locations, groundwater or from lake upwelling.

“This is a unique study,” said Sudeep Chandra, biologist and director of the Aquatics Ecosystems Analysis Laboratory at the University of Nevada, Reno. “We’re not just monitoring the lake, but looking at the mechanisms that are causing the algae to increase, using automated oxygen sensors provided by USGS.”

This effort to help protect the Lake Tahoe nearshore environment is being funded with \$200,000 from the Lahontan Water Board and \$200,000 from the USGS in matching federal funds. The USGS and the University of Nevada, Reno, will produce a final report of the findings in the summer of 2017.

The mission of the USGS Nevada Water Science Center is to provide sound, technical, and unbiased research and monitoring of water resources in the State of Nevada. Additional information can be found on the [Nevada Water Science Center website](#).

The [Lahontan Regional Water Quality Control Board’s](#) mission is to preserve, protect, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.

The University of Nevada, Reno’s [Aquatic Ecosystems Analysis Laboratory](#) conducts limnological studies related to the restoration or conservation of aquatic ecosystems, recognizing that science is critical in developing long-term and sustainable public policy. The lab works closely with local, state, federal, tribal and non-profit organizations to assist them in creating management strategies for their projects.

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