

UC DAVIS

TAHOE ENVIRONMENTAL RESEARCH CENTER

THE TAHOE ENVIRONMENTAL RESEARCH CENTER (TERC) IS DEDICATED TO RESEARCH, EDUCATION AND PUBLIC OUTREACH ON LAKES AND THEIR SURROUNDING WATERSHEDS AND AIRSHEDS. LAKE ECOSYSTEMS INCLUDE THE PHYSICAL, BIOGEOCHEMICAL AND HUMAN ENVIRONMENTS, AND THE INTERACTIONS AMONG THEM. THE CENTER IS COMMITTED TO PROVIDING OBJECTIVE SCIENTIFIC INFORMATION FOR RESTORATION AND SUSTAINABLE USE OF THE LAKE TAHOE BASIN.

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TAHOE STATUS REPORT RELEASED

Tahoe: State of the Lake Report 2007

UC Davis recently released the first in a new series of annual reports designed to give the non-scientific community an unprecedented compendium of information that documents changing water quality and meteorological conditions in the Lake

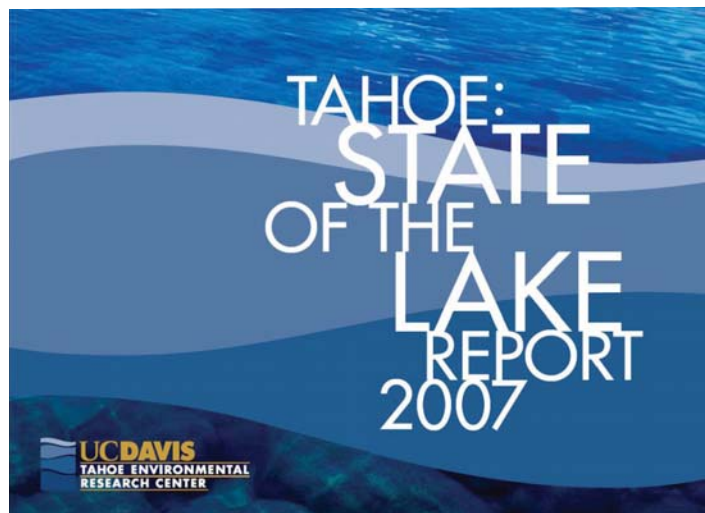
weather, water conditions, and aquatic life made since the late 1960s by UC Davis scientists. Some data on weather conditions go as far back as 1911. It includes the widely anticipated annual UC Davis Lake Tahoe clarity report (also called the Secchi depth measurement).

features that make Tahoe a popular international vacation destination: snowfall in winter and the beautiful cobalt-blue lake year-round.

The report includes these troubling signs of a warming climate:

- **Nights are warmer:** Night low temperatures have risen more than 4 degrees Fahrenheit since 1911.
- **Cold days are fewer:** The number of days with average air temperatures below freezing has dropped from 79 days to 52 days since 1911.
- **Less precipitation falls as snow:** The percentage of snow in the total precipitation has decreased from 52 percent to 34 percent since 1911.
- **Lake waters are warmer:** The average July surface water temperature has increased almost five degrees, from 62.9 degrees F. to 67.8 degrees F., since

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Tahoe status report shows warming trend & includes 2006 clarity results

Tahoe Basin.

This "Tahoe: State of the Lake Report 2007" presents, in easy-to-read charts, a summary of tens of thousands of scientific observations of lake

Overall, the most striking data in the inaugural report are those showing that the Tahoe climate is warming up. This trend could have profound implications for the natural

GIVING TO FRIENDS OF TAHOE

The Friends of Tahoe group provides funding to supplement research, education and engagement activities of the Tahoe Environmental Research

Center and promote understanding and conservation of the natural resources of the Lake Tahoe Basin and other lake systems.

- ☐ YES, I wish to support the Tahoe Environmental Research Center with the gift amount shown below.
- ☐ Please contact me about how I can make a deferred or estate gift to UC Davis.
- ☐ I wish this gift to remain anonymous.

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Watershed Sciences Building
One Shields Avenue
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The University is grateful for the support it receives from alumni and friends. One of the ways our thanks is expressed is through listing the names of donors in various

publications. Should you wish that your name not appear as a donor, please notify us if you have not already done so.

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TERCGFT/06501

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FEATURED STAFF

Scott Hackley Celebrates 25 Years with UC Davis

Scott H. Hackley has been an integral part of the UC Davis Tahoe Environmental Research Center for twenty-five years. His research has helped create awareness of the environmental issues facing Lake Tahoe and shape policies to ensure its future.

During his career Scott has been involved in various ongoing research projects throughout the Tahoe Basin, including atmospheric deposition monitoring, algal

bioassays, attached algae (periphyton) monitoring, and stream monitoring.

By collecting and analyzing precipitation samples, Scott has monitored the rate at which nitrogen and phosphorus have been deposited in the Lake Tahoe Basin. The atmospheric deposition monitoring program provides ongoing information on nutrient loading.

The collection and monitoring of attached algae (periphyton) that grows

along Tahoe's shoreline has led to the conclusion that there is a greater amount of growth in lakeshore areas where the upland is more developed.

In collaboration with the USGS, Scott monitors three streams along the west shore of Lake Tahoe. This particular project requires him to venture out into rain and snow storms, when the nutrient and sediment loading is high. Adverse weather conditions do not slow Scott down.



Scott Hackley taking water samples at Ward Creek along the west shore of Lake Tahoe

Scott enjoys his work and continues to make a valuable contribution to the TERC team.

FACILITIES UPDATE

TCES Building Receives Platinum Honor from U.S. Green Building Council

Together, UC Davis and Sierra Nevada College recently announced that the U.S. Green Building Council (USGBC) has awarded a Leadership in Energy and Environmental Design (LEED) Platinum certification for the Tahoe Center for Environmental Sciences building. The building is the first in Nevada to earn this recognition; one of only five laboratories and one of only 26 facilities that have earned the highest tier of recognition possible for energy and environmental design excellence under the LEED

program for New Construction (LEED-NC).

In order to achieve this recognition, the project design needed to earn over 52 credits in 6 areas that include Sustainable Sites, Energy & Atmosphere, Water Efficiency, Materials & Resources, Indoor Environmental Quality and Innovation & Design Process.

Located in Incline Village, Nevada, the Tahoe Center is a 45,000 square foot facility that houses UC Davis Tahoe Environmental Research Center (TERC)

research laboratories and the Thomas J. Long Foundation education center. All of these functions are focused on understanding and preserving the unique ecology of the Lake Tahoe watershed. Achieving

Platinum certification not only shows congruence with that focus but proves that sustainable, energy efficient design is possible even for complex, critical use buildings such as laboratories.



LETTER FROM THE DIRECTOR

Summer 2007 was a bittersweet experience for all of us at Tahoe. The Angora Fire, which destroyed over 250 homes, was a tragic beginning to the summer. Wildfires are, however, a persistent threat to the basin, and we endeavored to use the opportunity to learn about the fire's impacts. Within 24 hours, TERC staff had air samplers in place on the lake and around the basin. Streams in the watershed were monitored for water quality changes, and the R/V John LeConte sampled lake water at the southern end of the lake. Results of this research are on display at the

TERC Education Center in Incline Village. With support from State and Federal agencies, we are continuing this monitoring for the next two years.

The summer also had its high points. On July 6, a ground-breaking ceremony at our Field Station in Tahoe City celebrated the start of renovations to this historic property. Seventy-three people, from the general public, community partners, TERC staff, and members of the design and construction teams attended the event. Built in the 1920s, the former fish hatchery was used as the base of operations for TERC until the recent

move to the new Tahoe Center for Environmental Sciences building in Incline Village. The historical character of the building will be restored, but the interior and the surroundings will be fully renovated to meet current standards. A grand re-opening is being planned for August 2008.

Finally, on August 17 the 10th Anniversary Tahoe Federal Summit was held within yards of TERC. It was gratifying to hear both California and Nevada elected officials using the results from TERC's 2007 State of the Lake Report to describe both past successes and future



Geoffrey Schladow, Ph.D., Director
Tahoe Environmental Research Center

challenges that must be met in restoring Lake Tahoe. The event truly symbolized TERC's mission at Lake Tahoe.

A stylized, handwritten signature in black ink that reads "Geoff".

TAHOE STATUS REPORT, CONT.

(continued from Page 1)

1999. The lake's surface waters were the warmest on record on July 26, 2006: 78 degrees F.

"The persistent increase in water temperature that we have observed since 1978 is beginning to have noticeable impacts on the entire Lake Tahoe ecosystem," said Geoff Schladow, an expert on lake health and director of the UC Davis Tahoe Environmental

Research Center.

"The types of algae we see in the lake are changing, and they are starting to be present earlier in the year. The lake is becoming more hospitable to invasive plants and fish, with warm-water species like bass and carp increasingly common."

The entire report is free and available online at <http://terc.ucdavis.edu>.



The UC Davis Tahoe City Field Lab ("Historic Fish Hatchery") is currently being renovated at 2400 Lake Forest Road in Tahoe City, California.