



NEWS RELEASE

LAKE TAHOE CLARITY HELD STEADY IN 2009

For Release Immediately

August 16, 2010

Lake Tahoe, CA/NV—Lake Tahoe clarity held steady in 2009 for the ninth year in a row, but remains significantly poorer than in previous decades, according to UC Davis scientists who have monitored the lake for more than 40 years.

The lake was clear to an average depth of 68.1 feet in 2009, the researchers found.

That's down from 102.4 feet in 1968, when UC Davis researchers first measured the lake's clarity.

Geoff Schladow, director of the UC Davis Tahoe Environmental Research Center, said the latest test results may be cause for some optimism.

Even though precipitation was much higher in 2009 than in 2008 or 2007, the annual average clarity remained relatively stable, Schladow noted. Rainfall and snowmelt wash water-clouding particles into the lake.

Another hopeful finding: 2009 summer clarity readings were much better than 2008 summer readings. Overall, clarity during the summer months of 2009 was 10 feet better than in summer of 2008.

Schladow, a professor in the Department of Civil and Environmental Engineering, said the improvements were in part due to the realization that fine particles are so important. "For the last eight or nine years, the science has shown that fine particles are the major cause of clarity decline. Today we have many projects in the basin that are being designed to better retain these fine particles and keep them out of the lake."

UC Davis and many other academic institutions and public agencies are working together with the private sector to restore and preserve the Tahoe Basin ecosystem. Led by the Tahoe Regional Planning Agency, the collaborative Environmental Improvement Program is among the nation's most ambitious public-private restoration initiatives.

"Holding steady on lake clarity is a tremendous accomplishment, considering the increased precipitation and runoff we experienced," said Joanne S. Marchetta, executive director of the Tahoe Regional Planning Agency. "We believe the environmental restoration work we've been engaged in over the last decade is taking hold and making a positive difference."

UC Davis researchers measure the lake's clarity throughout the year by lowering a white

Secchi disk, named after its inventor, Italian scientist Angelo Secchi, at two fixed locations. The depth at which the disk, the size of a dinner plate, disappears from sight is referred to as the Secchi depth, a measurement of clarity.

The more than four decades of data collected so far strongly indicate that Lake Tahoe's long-term clarity loss is caused by increased fine particles and nutrients in the lake. The particles and nutrients enter the lake through erosion, runoff and atmospheric deposition. Once in the lake, they affect clarity by scattering light and fueling the growth of algae, which absorb light.

Funding for the clarity analyses comes from the Tahoe Regional Planning Agency.

CLARITY READINGS SINCE 2000

Lake Tahoe's average annual Secchi clarity measurements since 2000:

- * 2009 -- 68.1 feet (20.8 meters)
- * 2008 — 69.6 feet (21.2 meters)
- * 2007 — 70.1 feet (21.4 meters)
- * 2006 — 67.7 feet (20.6 meters)

- * 2005 — 72.4 feet (22.1 meters)
- * 2004 — 73.6 feet (22.4 meters)
- * 2003 — 71 feet (21.6 meters)
- * 2002 — 78 feet (23.8 meters)
- * 2001 — 73.6 feet (22.4 meters)
- * 2000 — 67.3 feet (20.5 meters)

About the Tahoe Environmental Research Center

The Tahoe Environmental Research Center is dedicated to research, education and public outreach on lakes and their surrounding watersheds and airsheds. It is committed to providing objective scientific information for restoration and sustainable use of the Lake Tahoe Basin. The center is part of the UC Davis John Muir Institute of the Environment.

Media contact(s):

- Geoff Schladow, UC Davis Tahoe Environmental Research Center, (530) 902-2272, gschladow@ucdavis.edu
- Dennis Oliver, Tahoe Regional Planning Agency, (775) 589-5235, doliver@trpa.org
- Sylvia Wright, UC Davis News Service, (530) 752-7704, swright@ucdavis.edu