## Tahoe's clarity — a billion dollar scientific experiment

## By Kathryn Reed

Stabilized is the word being used to describe what is going on with the clarity of Lake Tahoe. It took \$1.5 billion to get to that point.

That is the amount of money spent, according to the Tahoe Regional Planning Agency, on environmental improvement projects between the inception of the program in 1997 and 2010. In 1997, the depth the Secchi dish, which looks like a white dinner plate, could be seen was 64.1 feet. In 2010 the depth was 64.4 feet.

On Feb. 29 the 2011 clarity data was released, showing a clarity depth of 68.9 feet — or an improvement of 4.5 feet in one year. 2010, though, was the second worst reading since records began to be kept in the late 1960s, having decreased by 3.7 feet from 2009.



It has taken \$1.5 billion to stabilize Lake Tahoe's clarity. Photo/LTN file

The back-and-forth nature of the readings amounts to little

change in the last decade. In 2000, the disk could be seen at a depth of 67.3 inches.

"We feel it's positive news because we're at the point of stabilizing," Kristi Boosman, TRPA spokeswoman, told *Lake Tahoe News*. "It would have been a whole lot worse had we not made the investment we did."

But there is no proof that statement is true.

That money — mostly from the feds through the Southern Nevada Public Lands Management Act — is about to run out. That means another funding source needs to be found. Public-private partnerships are touted as the answer, but what exactly that looks like and who will be in either category remains to be seen.

Lake Tahoe clarity **readings: 2011:** 68.9 feet (21 meters) **2010**: 64.4 feet (19.6 meters) 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 meters (22.4 meters) **2000:** 67.3 feet (20.5 meters) Source: TRPA

"We always have to ask ourselves if we are getting results from the dollars because they are public dollars," Harold Singer, executive director of Lahontan Regional Water Quality Control Board said. His agency is tasked with managing water issues on the California side of the basin, though Lahontan's jurisdiction is much greater than Tahoe.

"You can't tie year-to-year clarity readings to the landscape. You have to look at long-term trends," Singer told *Lake Tahoe News*. Otherwise it's just looking at what was going on that one year instead of at the big picture, he said.

The surprise with the year-over-year improvement was 2011 was a heavy snow year, which in turn created a ton of runoff. This usually means more sediment reaches the lake to cloud the water, with an expected outcome of diminished clarity.

Geoffrey Schladow, director of the UC Davis Tahoe Environmental Research Center, in a statement said, "The factors that contribute to lake clarity are complex, and are not necessarily linked to factors occurring in the current year. Understanding what controls the long-term trends is at the heart of what we are attempting to do."

TERC along with TRPA released the report.

But one of the problems is no one is sure what is working and what isn't. For years nutrients like nitrogen and phosphorous were seen as the big bugaboos. Now it's fine sediment.

While TRPA has come up with a top 10 list of what individuals can do to help with lake clarity, there is no overall top 10 list of projects that could or should be implemented.

No one has identified the top areas contributing to the degradation of lake clarity. The mantra is "urban upland" — or the old developed areas in the basin.

This means that instead of taking a concerted approach to fixing the biggest polluters, the powers that be have cast a broad net to fix the problem. So, the next billion dollars that is spent on lake clarity may not be spent in the most efficient manner because after all of these years no one has prioritized what needs to be fixed to get the best return on

investment.

Goals from 2008-18 are outlined on Page 14 of this document. But they are neither specific nor detailed.

TRPA also supplied this information with accomplishments through 2006. It says how the money was spent, not whether it did any good in terms of lake clarity.

Even though the goal of TRPA and the states is to have Lake Tahoe's clarity be 97 feet by 2076, no detailed plan to reach that goal has been put in place by now. TRPA was created more than 40 years ago with the main emphasis to protect the waters of Lake Tahoe.