

# Volunteers helping Tahoe water quality

By Kathryn Reed

A lot of gunk flows into Lake Tahoe, causing the clarity to decline and algae to grow. Most of it comes in the winter and spring via storm runoff. But the lasting effect is making the water near the beaches less inviting, especially in the summer.

None of this is news.

What is new is the concerted effort that is under way to study all of that water that is flowing to the lake. Instead of just having the states mandate that the jurisdictions reduce the amount of fine sediment reaching the lake, there is actual monitoring going on to know what is mixed in with the water and which corrective measures are or are not working.

The jurisdictions around the lake are mandated to reduce their pollutant loads. That is what all the “erosion control” projects are about. The Lahontan Regional Quality Control Board’s total maximum daily load mandate is a 65-year program with the goal of returning the lake clarity to 100 feet – the depth a white dinner plate-like disc could be seen in the 1960s.

Tahoe Resource Conservation District is the lead agency of the Regional Stormwater Management Program. TRCD is seen as a neutral third party between those dictating what must be done and those who must carry out the orders. All sides are part of the program.

“We are providing consistent data collection, management, analysis and reporting methods,” Sarah Bauwens of TRCD told a group of nearly 50 people on Dec. 10 at Lake Tahoe Community

College.

A dozen urban catchments are being monitored. Data is being collected from 10 to 12 precipitation events a year, including rain, snow, rain on snow and thunderstorms.

Turbidity, or the cloudiness of the water, is being measured. Data is showing sediment doesn't just come down with the first rush of water.

"We've only done one full year of monitoring. Over time we want to see if there is a downward trend in pollutant load," Bauwens said.

She said it would take five years' of data to detect a trend.



Water flows from the pipe below the old Alta Mira building in South Lake Tahoe. Photo/LTN file

In addition to fine sediment, nitrogen and phosphorous are other pollutants that are cause for concern.

The volume of water is measured.

Water samples are sent to labs.

Some of the monitoring occurs at the end of the pipes that carry runoff to the lake, some involves seeing if erosion control measures (best management practices) are working, and then there is the rapid assessment method that tests if things

are working based on what the models said would happen.

This program will ideally help the stakeholders be able to make changes sooner if need be.

All of the information is being put in to a dedicated database. There is a scientific advisory group assisting with the program as well as a technical advisory committee to keep everyone up-to-date.

Also assisting with data collection are the pipe keepers, a group of volunteers working for the League to Save Lake Tahoe.

Nephelometric turbidity units, or NTU, are how turbidity is measured. The pipe at Timber Cove measured 150 NTU on Aug. 11. Before this week's storm no water had come out of that pipe since then. South Lake Tahoe's multi-million dollar Bijou erosion control project is being credited with the turnaround, according to Aaron Hussmann with the League.

At the end of Wednesday's gathering there was a panel discussion with representatives from the League, Lahontan, South Lake Tahoe, TRCD and Tahoe Regional Planning Agency.

They said:

- Regular maintenance of erosion projects is having better benefits than expected.
- As technology improves, more improvements can be made.
- The first 20-years of the TMDL will shed a lot of light on what is working.
- Looking at how nature worked before all the development came is critical.
- Controlling sediment at the source is ideal.
- Requiring infiltration systems be part of development or redevelopment projects will help.

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Notes:

- More info about Tahoe Resource Conservation District is online.
- More pipe keepers are needed. Info is online.