Clarity for Lake Tahoe's near shore being sought

By Kathryn Reed

Lake Tahoe's clarity is stabilizing and improving, but it is hard to tell just by walking along the shore. That's because all of the attention has been placed on what is going on in the middle of the lake and not at the edge of the lake.

But now the focus is expanding to include what is called the near shore. For several years the water people most often come in contact with has been going from pristine to looking at times like any other lake – brown and murky.

Regulating bodies and scientists are trying to figure out why this is happening and what can be done to stop it.

Lahontan Regional Water Quality Control Board on Feb. 13 will take up the issue at a meeting in South Lake Tahoe. A draft of the Lake Tahoe Nearshore Water Quality Protection Plan was unveiled Jan. 30 at a meeting hosted by Lahontan, Tahoe Regional Planning Agency, Nevada Division of Environmental Protection and U.S. Environmental Protection. Those are the four agencies that makeup the Near Shore Agency Working Group.

Dan Sussman with Lahontan on Jan. 30 discusses efforts to understand Lake Tahoe's near

shore. Photo/Kathryn Reed

The near shore for Tahoe is defined as 350 feet from existing lake level or 69 feet deep whichever is greater.

Those who attended the Thursday meeting – which ranged from scientists to water purveyors to environmentalists to marina owners to agency employees to the general public – were asked to rate what they thought the focus of limited manpower and financial resources should be spent on.

With everyone getting two votes, there were 27 votes for trophic status, 15 for clarity, 12 for community structure and nine for human health.

Trophic status deals with the fertility of the lake. Tahoe is an unfertile lake. Something that would be studied is periphyton, which is the algae people see sticking to rocks and boats. Phytoplankton is the floating algae. Chlorophyll would also be something to look at. It is an indicator of lake productivity.

Community structure has to do with plant and animal life.

One of the reasons the near shore has not gotten the same attention as mid-lake is that it is more complex. Aquatic invasive species like certain areas more than others, periphyton is more common in some spots than others, and then there are parts of the lake that don’t seem to have problems.

Fine sediment has long been a known contributor to the overall degradation of lake clarity. That is one of the main focuses to upgrade the mid-lake clarity. It is likely to be something to look at for the near shore, too.

“Small particles have more reflecting power. It means light can’t penetrate as deeply into the water,” Jason Kuchnicki with Nevada Division of Environmental Protection said.

An audience member asked why groundwater and stormwater drains were not being looked at. Besides the time and money constraints, they are not constants and would be harder to measure effects.

It was brought up how the regulating agencies have not partnered with the water purveyors who are always testing the water so it meets drinking water standards. Some of their intake valves are within the definition of the near shore.

Climate change impacts are also going to be considered. The temperature of the lake has been increasing. With the near shore being shallower, it will be even warmer. This then allows for better habitat for non-native warm water fish as well as algae.

Lahontan hopes to have a pilot monitoring plan in place starting this year. The problem is that estimates are that it will cost $450,000 a year to monitor the near shore and only $150,000 has been secured. Officials are trying to find ways to close that gap.