

# Equipment failures to cost STPUD \$3 mil.



The aeration basin at South Tahoe Public Utility District. Photos/Ross Johnson

## By Kathryn Reed

South Tahoe Public Utility District is facing unexpected multimillion-dollar equipment expenses. Two of the three aeration units at the sewer plant need to be replaced.

When the PVC pipe started to require multiple repairs the material was sent out to be investigated to see why it was failing. The plastic and couplers were falling apart.

Normal PVC pipe that is put in the ground is expected to last 50 to 100 years. These aeration pipes at the plant are 27 years old. Only a handful of companies make this specific pipe for aeration systems and they can make them to the standards they want. The manufacturer told South Tahoe PUD these specific pipes only have a life expectancy of 20 years.

“One would think with manufacturing processes it could be longer,” Paul Sciuto, deputy general manager, told *Lake Tahoe News*.

It will cost about \$3 million to replace the two aerators. The board this summer approved a contract for the design of the first aerator. It’s anticipated it will be operational next spring, with the second one coming on board in 2016.

During the design phase the district will look at what options exist beyond the material and design that is in place now.

Until that time the maintenance team for the district will be extra vigilant to make sure things get fixed when they do breakdown. Epoxy and steel metal bands are two of the methods to do so.



Activated sludge at the sewer plant.

“We have a 4 million gallon river coming at us every day so can’t shut the plant down,” Sciuto said.

That is why there are redundancies built into the system and backups to the backup.

The district has met its treated water quality requirements since 1995 and does not want to mar that record. It’s not like the aeration process can be skipped.

“The aeration basins are a critical part of the biological process at the treatment plant,” Sciuto said. “It’s almost like you see bubbling chocolate milk. It’s pretty uniform when you look at the surface of the water. If there is an area with less bubbles, there is probably a failure in the air pipe.”

The air is helping breakdown the organic material. Air is being blown 24/7. Each basin is about 20 feet by 100 feet.

Usually only one is in operation at a time. However, two were required over Fourth of July.

While the district knew the aerators would eventually need to be replaced, it was not on the capital improvement list for the near future. To deal with the unexpected expense money will be used from the sewer enterprise fund that had been earmarked for other projects. Some work in Diamond Valley and a couple collection system projects will be pushed out a few years. There could be other projects that will be delayed.