

High water creates additional 'tributary' into Lake Tahoe

By Kathryn Reed

Water races from what appears to be another tributary of Lake Tahoe.

This wouldn't be unusual right now based on the amount of snow, rain on snow and snowmelt the Lake Tahoe Basin continues experience. But this area in South Lake Tahoe isn't a normal outflow.

A barrier beach about 45 feet by 45 feet and nearly 3 feet high was breached last week, sending a torrent of water into Lake Tahoe. Because this is all coarse sand, gobs of fine sediment are not likely to have entered the lake.



South Tahoe
stormwater
coordinator
Robert Erlich
talks about
the Pope Marsh
breach.
Photos/Kathryn
Reed

Still, on March 23 a small light brown patch could be seen not far from shore. Robert Erlich, stormwater coordinator for

South Lake Tahoe, said the discoloring is a result of the sand being pushed into the lake.

Pope Marsh, which is owned by the U.S. Forest Service, sits between Pope Beach and the Tahoe Keys on the South Shore. From the private gated Lighthouse Shores it would be hard to tell this flow is not normal. But it is normal and natural in high water years.

“This was a pretty big one this year,” Greg Trischler, water supervisor for the Tahoe Keys Water Department, said of the breach.

A wall of sand about 3-feet high in some sections forms a nearly 50-foot-wide exit route for the water.

Because this area is one of the biggest waterfowl nesting habitats on the South Shore, the breach is a good thing, according to the Forest Service.

“It will improve the nesting habitat for waterfowl,” explained Sarah Muskopf, USFS aquatic biologist.

She said more plants will grow there, which in turn will hold more sediment in the marsh, meaning less will end up in the lake.

For South Lake Tahoe, this is giving officials concerned with urban runoff a chance to gauge where the water is coming from.

On March 19 when Erlich saw the breach he called in a local consultant the city uses to monitor turbidity – the official word for cloudy water. Rath Townsend recorded the turbidity at the marsh outlet at 4.72 ntu. NTU is nephelometric turbidity units.

At the Venice/Pope marsh inlet before the confluence it was 8.16 ntu and 9.64 ntu after the confluence in the Venice/Pope marsh.

This compares to 62.3 ntu at the Y along Lake Tahoe Boulevard, across from Raley's.

What is ideal is for the numbers to decrease as they hit stormwater basins. The lowest turbidity level should be as the water enters Lake Tahoe.

This in large part is what the total maximum daily load is all about – cutting back how much gunk reaches the lake.

Monitoring will go on throughout the spring, during different conditions, to see which stormwater control measures that are in place are working and what might need improving. The goal is no brown stuff would reach the lake.

"We're getting to know a little bit about our watershed," Erlich said. "We have an interest in trying to find out if the urban runoff is coming into the Pope Marsh. We want to look at the connectivity flows into Pope Marsh."

He said two-thirds of the bad stuff reaching the lake is from urban runoff.

Erlich added that this section of South Lake Tahoe accounts for nearly one-quarter of the city's drainage issues. Water is running from Lake Tahoe Boulevard from about South Tahoe High to the Y. Water descends from Gardner Mountain.

Some of it ends up in the private Tallac Lagoon near 15th Street and Venice Drive. That lagoon acts as a filtration system, but also has an overflow system. Eventually water from the lagoon winds up in Pope Marsh.

Because some of that water is coming off South Tahoe streets – and carrying sediment – the city is charged with monitoring it even though it may reach the lake via Forest Service land.

Another concern of the city's and the Tahoe Keys Water District is the rising level of the lagoon can threaten to flood houses in the area.

“We usually monitor the height of the water in Tallac (Lagoon),” Trischler said. Manually breaking the beach barrier was an option to get water in the lagoon to recede.

He said the Dillingham Corp. built the lagoon and dam by the bridge on Venice Drive when the Keys was developed in the 1960s.

“They also planted the tule grass and the trees in Pope Marsh. It was supposed to pull some of the nitrogen and phosphorus out. It was designed to filter itself out so it would be 99.9 percent pure,” Trischler said.

Dillingham also installed the concrete weir at Pope Marsh near Lighthouse shores.

“If this wasn’t here, erosion could move back into Pope Marsh,” Erlich said of that weir.

That barrier beach will form again. It does each year. The waves from the lake bring in sand and it naturally piles up. But it will take another high water year like this one for that temporary tributary into Lake Tahoe to be created.

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