

Climate change to bring rain, floods to Tahoe



Scientists are adamant climate change is already affecting Lake Tahoe. Photos/LTN

By Kathryn Reed

Tahoe's isn't likely to be barren anytime soon, but the type of moisture it receives in the future will be in the form of rain instead of snow, according to scientists.

That's one outcome of climate change.

This in turn has consequences such as storage issues, flooding, more dry days than wet, and the increased threat of fire.

All of this was outlined during a climate change workshop

hosted by the Lahontan Regional Water Quality Control Board at Lake Tahoe Community College on Jan. 15.

By 2050 the average snowpack for the Sierra is expected to be half of what it is now, according to Mike Dettinger, with the U.S. Geological Society and Scripps Institution of Oceanography at UC San Diego.

“With more rain, less snow, and larger storms it all comes together that the flood risk goes up in the Sierra,” Dettinger told the crowd of more than 60 people.

The meeting was one day before NOAA said 2014 was the 38th straight year with global annual temperatures above average.

Dettinger pointed out the last time California had colder than average years was from 1975-79.

Most models point to a trend of temperatures rising. This means the snow level will rise as well. That is why those living at lake level, and even many ski slopes in the Tahoe area, will see rain instead of white stuff.

Arlan Nickel with the U.S. Bureau of Reclamation said it may be time for agencies to look at when they release water so it better coincides with runoff and need. Peak runoff today is in May, but that date keeps moving up and is eventually expected to be in April.

With Lake Tahoe accounting for half of the Truckee basin's water storage, he would like evaporation to be studied more.

While he didn't mention it at this week's talk, his agency along with scientists from the Desert Research Institute in Reno, and officials from the California Department of Water Resources this month placed a floating weather station at Folsom Lake with the intention of gathering data about evaporation.

DWR officials admit evaporation is a missing piece of

information in the bigger water picture.

Geoff Schladow, director of the UC Davis Tahoe Environmental Research Center, is worried that dead zones are being created in Tahoe because the lake is not mixing like is used to. At 100 meters in 2014, that was the shallowest Lake Tahoe had mixed since records have been kept.

The mixing of water from the bottom of the lake to the top brings oxygen to all levels.

Without the mixing, ecosystems can be affected, heavy metals in the sediment become soluble, which can affect human health, fish die and other issues arise.

Lake Tahoe is not unique to these dead zones. Schladow said it is occurring throughout the world.

Schladow believes the models scientists have been using need to be updated because conditions are changing, and the data and assumptions from 10 years ago are outdated.

After the scientists spoke those attending were broken into groups to further discuss climate change and Lake Tahoe.

Lahontan is going to take the information from the workshop, compile a report and make recommendations to the regional board about potential policy changes or new policy.