

# Opinion: LT Restoration Act must be approved to help Tahoe

By Dianne Feinstein

Anyone doubting that climate change poses a severe threat to Lake Tahoe should read an alarming new report by the UC Davis Tahoe Environmental Research Center.

It was written for the U.S. Forest Service by scientists who have devoted their professional careers to studying Lake Tahoe. And it paints a distinctly bleak picture of the future for the Jewel of the Sierra.

Among its findings: The Tahoe basin's regional snowpack could decline by as much as 60 percent in the next century, with increased floods likely by 2050 and prolonged droughts by 2100.



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Even “under the most optimistic projections,” average snowpack in the Sierra Nevada around Tahoe will decline by 40 to 60 percent by 2100, according to the report.

This would likely bankrupt Tahoe's ski industry, threaten the water supply of Reno and other communities and degrade the lake's fabled water clarity. It is devastating.

That's why it's vital for the U.S. Senate to pass the Lake Tahoe Restoration Act of 2010, which I co-sponsored with Sens. Harry Reid, D-Nev.; Barbara Boxer, D-Calif. and John Ensign, R-Nev.

This legislation would authorize a broad array of programs to mount an aggressive attack on the many threats facing Lake Tahoe and the Tahoe basin, including invasive species, wildfires and pollution and sedimentation.

According to the UC Davis report, an all-out attack on pollution and sedimentation may be the lake's last best hope.

Geoff Schladow, director of the UC Davis Tahoe Environmental Research Center and one of the report's authors, noted the need to restore short-term water quality in Lake Tahoe – while there's still time to do it.

“Reducing the load of external nutrients entering the lake in the coming decades may be the only possible mitigation measure to reduce the impact of climate change on lake clarity,” the report said.

Without such an effort, the “internal loading of nutrients” could fundamentally change the lake and fuel algal growth, creating a downward spiral in water quality and clarity.

Water clarity is one of the central problems the legislation would address.

Pollution and sedimentation have threatened Lake Tahoe's water clarity for years. In 1968, the first year UC Davis scientists made measurements using a device called a Secchi disk, clarity was measured at an average depth of 102.4 feet. Clarity declined over the next three decades, hitting a low of 64 feet in 1997.

There has been some improvement in this decade. This year scientists recorded average clarity at 69.6 feet – roughly

within the range of the past eight years. But it is a fragile gain.

Climate change has already made itself apparent at Lake Tahoe. It makes the basin dry and tinder-hot, raising the risks of catastrophic wildfire. Daily air temperatures have increased 4 degrees since 1911. Snow has declined as a fraction of total precipitation, from an average of 52 percent in 1910 to just 34 percent in recent years.

And climate change has caused Lake Tahoe's water temperature to rise 1.5 degrees in 38 years. That means the cyclical deep-water mixing of the lake's waters will occur less frequently, and this could significantly disrupt Lake Tahoe's ecosystem.

Specifically, the legislation would authorize the highest-priority restoration projects. These would include stormwater management and watershed restoration projects scientifically determined to be the most effective ways to improve water clarity.

It also would authorize projects to reduce the threat of wildfire at Lake Tahoe. Wildfires not only destroy the forest and threaten lives, they send ash into the streams that feed into Lake Tahoe, further degrading water clarity.

It would also authorize programs to attack invasive species such as quagga mussels and Asian clams. Just one quagga mussel can lay 1 million eggs, and an infestation could destroy the lake's biology and the local economy.

This legislation would build upon the gains established under the Lake Tahoe Restoration Act of 2000. This earlier law set in motion a partnership among the federal government, the states of California and Nevada, local governments and organizations, and the private sector.

It financed more than 300 projects under the Environmental Improvement Program, with another 183 projects under way.

These programs led to reversals in the slide in water clarity and a reduction in hazardous fuels. The dead, dying and downed trees that fuel wildfires have been treated on 33,549 acres, including 12,256 acres since 2006.

A lot of good work has been done. But this newest report from UC Davis makes it plain as day: There's a lot more work to do, and time is running out.

*Dianne Feinstein is the senior U.S. senator from California.*