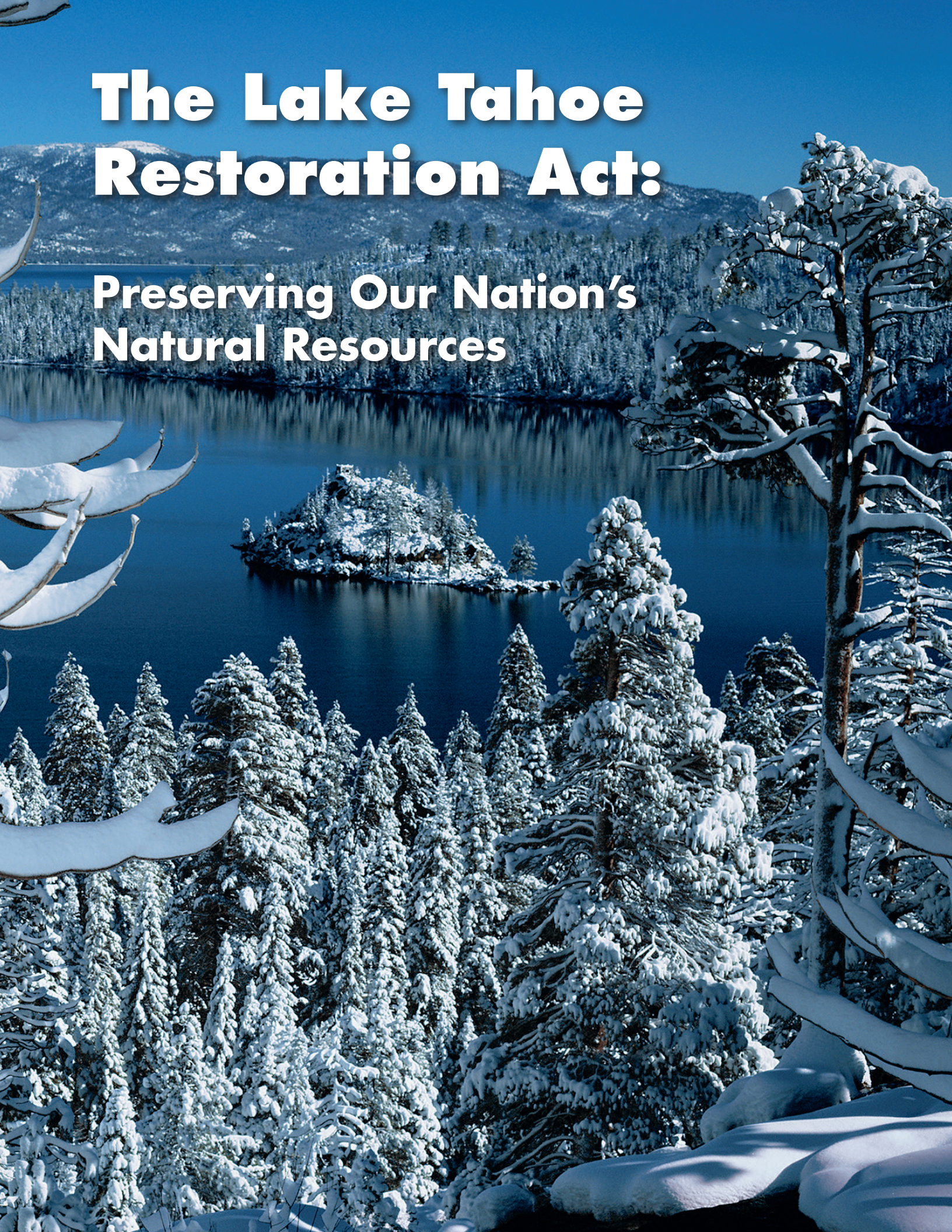
The Lake Tahoe Restoration Act:

Preserving Our Nation's Natural Resources



Dear Californian:

Lake Tahoe is a national treasure. Her alpine beauty has drawn and inspired people for centuries, from poets and artists like John Muir and Mark Twain to countless millions of people the world over.

But the "Jewel of the Sierra" is in trouble, threatened by invasive species – such as the quagga mussel, which could devastate the lake's biology and the regional economy – as well as pollution and drought. If we don't take robust action, we could lose Lake Tahoe and the Tahoe Basin to any number of serious threats. In 1997, former President Bill Clinton and Vice President Al Gore held a Presidential Forum at Lake Tahoe. The Forum signaled a renewed federal commitment to the restoration of the Lake Tahoe Basin, in partnership with the States of California and Nevada, as well as the Tahoe community.

In 2000, I cosponsored the Lake Tahoe Restoration Act, which began a 10-year, $900 million clean-up effort. The bill authorized $300 million in federal funds to be spent on efforts to restore Lake Tahoe. This partnership launched more than 600 environmental projects and restoration activities all around the lake.

But that funding expired, so in December 2016 I worked with Senators Dean Heller (R-Nev.), Harry Reid (D-Nev.) and Barbara Boxer (D-Calif.) to extend the Lake Tahoe Restoration Act by another 10 years. The legislation authorizes an additional $415 million to combat invasive species, improve water clarity, reduce the threat of catastrophic wildfire and restore the environment.

We must continue the job begun a decade ago. But we cannot do this alone. We need your help and support. Together we can preserve this precious natural resource.

Sincerely,

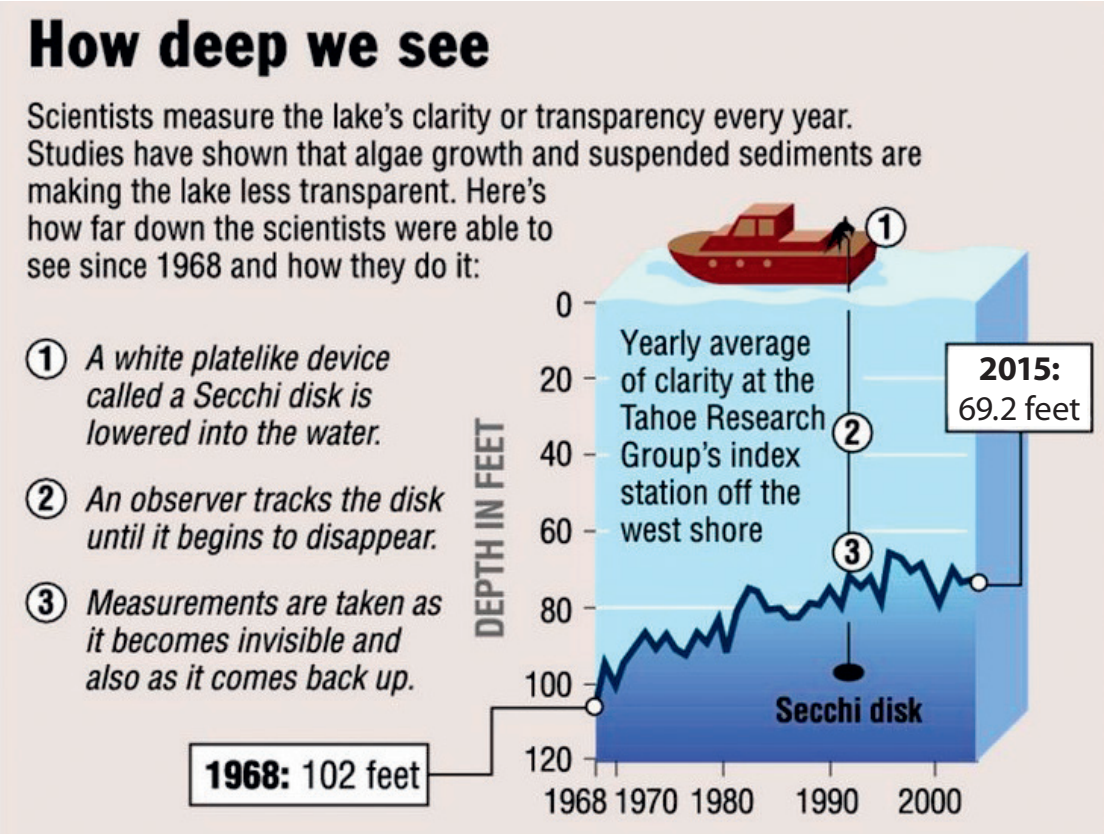
Dianne Feinstein

U.S. Senator

Lake Tahoe is in a state of environmental emergency. In 1968, it was possible to see 102 feet down on a clear, calm day. But since then, the Lake's famed crystal-clear water has been muddied by pollution and sedimentation.

From 1968 to 2000, there was near-continuous decline in lake clarity. However, according to a recent study, since 2001 there have been several years in which the clarity has consistently been better than the long-term trend would have predicted. New modeling results show that fine particle runoff from urbanized areas and roadways around the lake are the primary factors that influence clarity levels.

This suggests that years of investment in reducing runoff may now be paying off. It's vital that we continue all efforts to improve Tahoe's clarity – including hazardous fuels reduction, erosion control and curbing pollution. We cannot cut back on these efforts, because if we do the clarity will become worse. Efforts must continue to ensure that Lake Tahoe retains its world-renowned clarity for future generations to enjoy.



The Lake's famed crystal-clear water has been muddied over the years by pollution and sedimentation.

Tahoe is about more than water. The majestic Sierra Nevada Forests, which include the Lake Tahoe Basin, represent some of the highest fire-risk areas in the country. The Angora Fire of 2007, for example, underscored the high risk – it burned more than 3,000 acres, and destroyed 242 homes and 67 commercial structures.

The Sierra Nevada Forests, including those around Lake Tahoe, represent some of the highest fire-risk areas in the country.

Insect infestation and drought have killed more than one-third of the trees in the Lake Tahoe Forest. According to the U.S. Forest Service, the likelihood of a severe fire only continues to grow each year.

This could destroy the habitat of several already endangered species, including the red fox, the willow flycatcher, the Lahontan Cutthroat Trout and the yellow-legged frog. And it would most certainly increase sedimentation into the Lake, further reducing its clarity.

The Healthy Forests Restoration Act

In the wake of the deadly October 2003 fires, Congress was spurred into action and passed the Healthy Forests Restoration Act. The bill established guidelines to protect our national forests from catastrophic fire by expediting the thinning of hazardous fuels, such as dead and dying trees and brush.

But steps have been taken at the local level too – all fire districts and the City of South Lake Tahoe have Community Wildfire Protection Plans. These plans prioritize fuels reduction activities. These preventative measures will help save lives, protect homes at risk for catastrophic forest fires and save millions of dollars in potential damage.

To continue efforts that began more than a decade ago to restore Lake Tahoe and the Tahoe Basin, I joined with Senators Dean Heller (R-Nev.), Harry Reid (D-Nev.) and Barbara Boxer (D-Calif.) to pass the Lake Tahoe Restoration Act of 2016.

Building on the broad-based effort that began under the Lake Tahoe Restoration Act of 2000, the new bill authorizes $415 million over 10 years to combat invasive species, improve water clarity, reduce the threat of catastrophic wildfire and restore the environment.

Key components include:

- Protecting Lake Tahoe from the threat of quagga and zebra mussels, asian clams and other invasive species. The quagga in particular is a highly dangerous threat that has already infested Lake Mead. Just one quagga mussel can lay 1 million eggs; these mussels attach themselves to underwater structures and clog water intake pipes,

The Lake Tahoe Restoration Act of 2015 will authorize $415

image by J.T. Ravizé

million over ten years to protect Lake Tahoe and the Tahoe Basin.

canals, aqueducts and dams. An infestation could destroy Lake Tahoe's biology and devastate the regional economy. The bill authorizes a robust fight against this threat, including $45 million for lake-wide aquatic invasive species control and a watercraft inspection program.

- The bill authorizes $113 million for storm water management and watershed restoration projects critical to improve water clarity and $80 million for environmental restoration projects such as creek restoration.

- The bill authorizes $150 million for fire risk reduction and forest management, including fuel reduction projects in high risk areas.

The Lake Tahoe Restoration Act of 2016 continues broad efforts to protect Lake Tahoe that were launched under similar legislation introduced in 2000. The original legislation set in motion more than 600 projects to restore Lake Tahoe, and a partnership between the federal government, the states of California and Nevada, local governments and organizations and the private sector.

Much has been accomplished with these funds, including:

- Improving more than 17,325 acres of wildlife habitat;
- Restoring 1,706 acres of Stream Environment Zones;
- Fighting to improve water clarity by projects to contain pollution and sedimentation, including improvements to 762 miles of roadways;
- Constructing more than 153 miles of new trails;
- Reducing fuels on about 69,711 acres of forest land;
- Upgrading 39 transit facilities which has increased the use of public transportation;
- Adding 3,195 linear feet of shoreline for public access.

image by J.T. Ravizé

A Federal - State - Local Partnership

The responsibility for maintaining the health of the Lake's environment is shared by federal, state, and local authorities. In fact, more than 78% of the land in the Lake Tahoe Basin is managed by the federal government – lying in two states, California and Nevada and five counties.

The Tahoe Regional Planning Agency, which helps track the progress at Lake Tahoe, reports that:

Federal Government: The federal government has invested $655.2 million designing and completing environmental improvement projects since 1997.

California – Nevada partnership: California has invested $813 million and Nevada has invested $131 million on efforts to save Lake Tahoe.

Local Government: Local governments have invested $108.5 million on a range of projects, including erosion control.

Private Sector: The private sector has invested $353.9 million on water-quality and restoration projects since 1997.

image by J.T. Ravizé

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Future Challenges

We have made great strides since the 1997 Summit. But there are also a number of challenges that remain:

- **Reducing the impact of climate change** – The temperature of Lake Tahoe has increased by approximately one degree Celsius since 1969, threatening to disrupt the delicate ecosystem of the Lake. Additionally, the changing climate is altering precipitation patterns causing more rain to fall rather than snow. If this continues, more erosion control measures will be needed to collect sediment from flowing directing into the Lake.

- **Reducing the threat of wildfire** – Fires are a direct threat to the Lake and Basin. Global warming is real, and has led to longer summers. As a result, the Tahoe Basin becomes hot and tinder-dry. In the next 10 years, thousands of acres of forests must be thinned to reduce this risk. Catastrophic wildfires are a major threat: They destroy wildlands and property, they can take lives and they send pollution and sedimentation into the Lake and its tributaries. Reducing the risks of catastrophic wildfires must be a top priority.

- **Preventing the spread of invasive species** – Lake Tahoe faces a growing threat from the expansion of invasive aquatic plants; from warm-water fish such as largemouth bass and bluegill; and from quagga mussels and Asian clams. At spots between Zephyr Point and Elk Point, UC Davis scientists found up to 3,000 Asian clams per square meter. These clam populations could put sharp shells and rotting algae on the Lake's beaches, and help spread other invasive species like quagga mussels. Unchecked, invasive aquatic species could alter the Lake's ecosystem and forever change Lake Tahoe.

image by J.T. Ravizé

We are well on the path to restoring Lake Tahoe for future generations to enjoy.

It is my hope that we can continue this robust restoration effort. Together, we can Keep Tahoe Blue!

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Cover images courtesy of J.T. Ravizé & Linda Christiana Ravizé.

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