

LAKE TAHOE WEST

LANDSCAPE RESTORATION STRATEGY

AUGUST 2019

LAKE TAHOE'S WEST SHORE is one of America's treasured landscapes, with towering forests, clear blue lakes, and snow-covered alpine peaks. Yet wildfire, drought, insect outbreaks, and flooding—all amplified by climate change—threaten this 60,000-acre landscape. The Lake Tahoe West Restoration Partnership (Lake Tahoe West) is changing this. By pooling resources and collaborating across jurisdictions, Lake Tahoe West is taking an all lands approach to restoring the resilience of the west shore to disturbance. This includes the forests, communities, recreational opportunities, and watersheds that stretch from the shoreline all the way to the ridgetops, from Emerald Bay north to Tahoe City.

The Lake Tahoe West Landscape Resilience Assessment (2017) documented unhealthy conditions on the west shore. Forests are overly dense and uniform, and susceptible to high severity fire, especially in lower elevations and canyons. Trees and plants are dense near the ground, creating ladder fuels that could carry flames into the tree tops. These unhealthy conditions also leave large areas of forest at high risk to insects and disease. Eighty percent of streams on the west shore have barriers that may block fish from passing upstream.

With so many acres to treat, land managers are relying on cutting-edge science and technology to inform management in a changing climate. Scientists modeled how forests could change over time under four possible restoration scenarios to reduce uncertainties about how to achieve desired outcomes. The resulting Landscape Restoration Strategy will guide how to prioritize, integrate, and sequence restoration treatments with work already underway. This approach will create operational and financial efficiencies.

Lake Tahoe West will:

1. Plan restoration actions based on landscape-specific scientific analysis and modeling.
2. Coordinate restoration at the landscape scale, across land ownerships.
3. Restore the resilience of forests, watersheds, and communities in the face of climate change.
4. Explore new methods for treatments in areas that are challenging to manage, such as steep slopes and streams.
5. Proactively manage habitat to protect sensitive and threatened species, such as the California spotted owl and northern goshawk.
6. Increase the use of fire as a restoration tool.



Lake Tahoe West Timeline



Lake Tahoe West will also safeguard wildlife, water quality, and communities. The Strategy, with its six goals to guide treatment, will provide a 20-year framework to increase the pace and scale of restoration across all ownerships.

Six Goals to Guide Restoration

1. Forests recover from fire, drought, and insect outbreaks.
2. Fires burn at primarily low to moderate severities and provide ecological benefits.
3. Terrestrial and aquatic ecosystems support native species.
4. Healthy creeks and floodplains provide clean water, complex habitat, and buffering from floods and droughts.
5. People live safely with fire and enjoy and steward the landscape.
6. Restoration is efficient, collaborative, and supports a strong economy.

Key Strategies for Implementation

- Increase pace and scale of forest thinning and prescribed fire to reduce wildfire risks to communities and to wildlife habitat.
- Restore meadows, manage invasive species, increase habitat connectivity, and support native plants and wildlife threatened by climate change.

- Restore streams to reduce erosion, improve native species habitat, and increase watershed resilience to flooding and drought conditions.
- Support and build resilience into the local economy.
- Enhance engagement with the Washoe Tribe.
- Work collaboratively with land managers to meet objectives across land ownership boundaries.
- Increase smoke forecasting, agency coordination, and public outreach to minimize smoke impacts from prescribed and managed wildfire.
- Manage roads and trails for long-term stability and watershed protection.

Next Steps for Lake Tahoe West

Crews have begun surveying the landscape for plants and wildlife. Lake Tahoe West will prepare a Proposed Action in 2019. The public will be able to review plans and provide comments in 2020. Agencies will complete decisions and permitting by 2021. Implementation begins in 2022, with an estimated average annual cost of \$13 million. This includes restoring forests, meadows, and streams; repairing roads and trails; managing invasive species; and reducing wildfire risk.

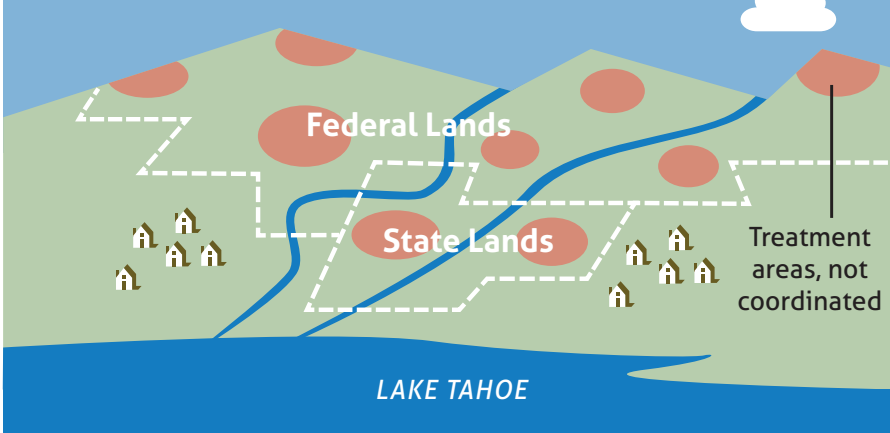
In sum, the Strategy lays the groundwork for restoring the entire west shore, and can also inform other restoration efforts in the Sierra Nevada.

About the Lake Tahoe West Restoration Partnership

The goal of the Lake Tahoe West Restoration Partnership is to restore the resilience of the west shore's forests, watersheds, recreational opportunities, and communities. The planning area includes 60,000 acres of federal, state, local, and private lands, from Emerald Bay to Tahoe City.

Partners include the U.S.D.A. Forest Service (USFS), Lake Tahoe Basin Management Unit; the USFS Pacific Southwest Research Station; the California Tahoe Conservancy; California State Parks; the Tahoe Regional Planning Agency; the Lahontan Regional Water Quality Control Board; the National Forest Foundation; and the Tahoe Fire and Fuels Team; along with two dozen stakeholders and the Washoe Tribe of Nevada and California. laketahowest.org

Current: Focused, but fragmented, restoration



Vision: Coordinated, contiguous restoration



Coordinated Landscape-Scale Management is Needed to Improve Forest and Watershed Health

Forest and watershed health projects are already advancing within the Lake Tahoe West landscape. For example, the West Shore Wildland Urban Interface Healthy Forest and Fuels Reduction Project is currently addressing forest health and fuel reduction needs on 4,947 acres of National Forest System lands.

Despite important ongoing efforts, a project-by-project approach cannot match the scale of the threat to west shore forests and watersheds. Lake Tahoe West will build on these ongoing efforts to restore resilience to the full 60,000-acre landscape.

Graphic adapted from Washington State Department of Natural Resources' "20-Year Forest Health Strategic Plan."

Conventional Forest Management Approach	Lake Tahoe West's Resilience-Based Approach
Projects are led by a single agency.	Partnership is collaboratively led.
Projects focus on a few goals.	Restoration strategy promotes multiple integrated benefits for ecosystems and communities.
Projects tend to avoid or limit treatment in stream zones, steep slopes, and sensitive species habitat.	Restoration strategy addresses the entire landscape to improve health of sensitive areas and species.
Monitoring addresses implementation and effectiveness of individual projects.	Monitoring and adaptive management will address the whole landscape.
Engages scientists in review of individual projects, typically after they are planned.	Engages scientists collaboratively and proactively to develop a restoration strategy based on landscape-specific scientific analysis and modeling.
Agencies plan projects without a formal or collaboratively developed landscape restoration strategy.	Agencies develop the restoration strategy and on-the-ground projects with ongoing engagement of stakeholders, scientists, and managers.

