

## State and Regional Planning Context

## Process Overview

### Tahoe Basin Programs

- Regional Plan and Regional Transportation Plan
- Sustainable Communities Strategy
- Sustainability Action Plan
- Total Maximum Daily Load and Stormwater Plan
- Shorezone Plan
- Environmental Improvement Program
- Lake Tahoe Basin Management Unit Forest Plan
- Multi-Jurisdictional Fuel Reduction Strategy

### State Mandates

- Safeguarding California (Climate Adaptation Strategy)
- Global Warming Solutions Act
- Sustainable Communities Act
- California Water Action Plan
- State Wildlife Action Plan
- Forest Carbon Plan
- Executive Orders B-30-15, B-52-18, B-54-18, and B-55-18
- Human Right to Water
- Bioenergy Action Plan
- Proposition 68: Outdoor Access for All

### Climate Adaptation Action Plan

- Downscaled, common **climate projections**
- Integrated social-ecological **vulnerability assessment** including resources, transportation, recreation, public health, and economics
- **Interagency action plan** that builds from and feeds back into existing plans and projects

existing information

updated information

## Step 1

### Assess Vulnerabilities

Project future conditions and assess the potential effects of climate change on the Basin's key socio-ecological resources and ecosystem services.  
*Deliverables: Downscaled Climate Change Projections for the Basin, Vulnerability Assessment*

## Step 2

### Improve Basin's Collective Ability to Adapt

Identify areas in local plans and programs where adaptive capacity can be integrated into decision-making and planning. Implement actions and recommendations derived from the CAAP.  
*Deliverables: Plan/Policy/Program Gap Analysis, Climate Adaptation Action Plan*

## Step 3

### Develop Common Performance Measures for Adaptation

Design monitoring protocols to gauge plan progress and the condition of vulnerable systems and ecosystem services, and practice adaptive management to meet unforeseen challenges.  
*Deliverable: Performance Metrics*

# Enhancing the Lake Tahoe Basin's Ability to Adapt to Climate Change

Along with other public agencies, nonprofit, and business partners, the California Tahoe Conservancy is collaboratively developing an interagency Climate Adaptation Action Plan (CAAP) for the Lake Tahoe Basin.

The CAAP has three concurrent goals:

## Goals

- 1 Inform** and increase the awareness of public agencies, stakeholders, and Basin communities regarding the impacts and implications of climate change, and the actions that partners are taking to adapt to these.
- 2 Enhance** the Basin's resilience to climate change—the ability of its communities, resources, assets and landscape to withstand and adapt to climate-amplified disturbances and extreme events, while still providing desired values and services.
- 3 Align** public and private efforts to take climate change into account in planning and investment decisions.

Climate change poses a major threat to the Lake Tahoe Basin. The CAAP will identify actions that the Basin agencies are now taking and will be taking in the next two to three years. This will help further integrate climate resilience and adaptation into Basin planning and investments.



Photo: Chris Mertens

## Plan Partners

### Science &

### Engineering Team

University of California, Berkeley; University of California, Davis; University of Nevada, Reno; U.S. Geological Survey, USDA, Forest Service (USFS) Pacific Southwest Research Station, Desert Research Institute, Energetics, Industrial Economics Inc.

### Stakeholder Group

California Tahoe Conservancy, Tahoe Transportation District, Caltrans, Lahontan Regional Water Quality Control Board, CAL FIRE, Calif. State Parks, Calif. Dept. of Fish & Wildlife, Calif. Dept. of Conservation, Tahoe Regional Planning Agency, Nevada Div. of Forestry, Nev. Div. of State Lands, Nev. Dept. of Wildlife, Nev. Dept. of Transportation, Nev. Div. of Environmental Protection, USFS Lake Tahoe Basin Management Unit, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, USDA California Climate Hub, Washoe Tribe of Nevada and California, Tahoe Fire and Fuels Team, El Dorado County, Placer County, South Tahoe Public Utility District, Tahoe City Public Utility District, Tahoe Resource Conservation District, Nev. Tahoe Resource Conservation District, League to Save Lake Tahoe, Squaw Valley Alpine Meadows, Tahoe Rim Trail Association, Tahoe Lakefront Owners Association, Sierra Business Council, Sierra Nevada Alliance, South Shore Chamber of Commerce, Tahoe Prosperity Center, Tahoe City Public Utility District

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## Guiding Principles

### Seek Alignment Across Jurisdictions

The CAAP has developed a common set of more precise, reliable climate projections to inform future updates of regional planning documents and decision-making processes, and to help guide future public and private investments.

### Protect Vulnerable Resources, Assets, and Communities

Drawing from a dedicated team of scientists and engineers, the CAAP has identified the natural resources, economic assets, and local communities most at risk from a changing climate, and will make recommendations to improve their resiliency and safeguard our future.

### Provide Multiple Benefits

The CAAP will identify actions that will both build climate preparedness and reduce greenhouse gas emissions, and that will provide environmental, economic, and social benefits to the Lake Tahoe basin.

# Expected Climate Change Impacts and Implications for the Basin



## Forests

Drought stress and insect outbreaks cause increased tree mortality and wildfire.



## Public Health and Safety

Catastrophic wildfire threatens human life while smoke exposure and heat waves have severe health effects for sensitive populations.



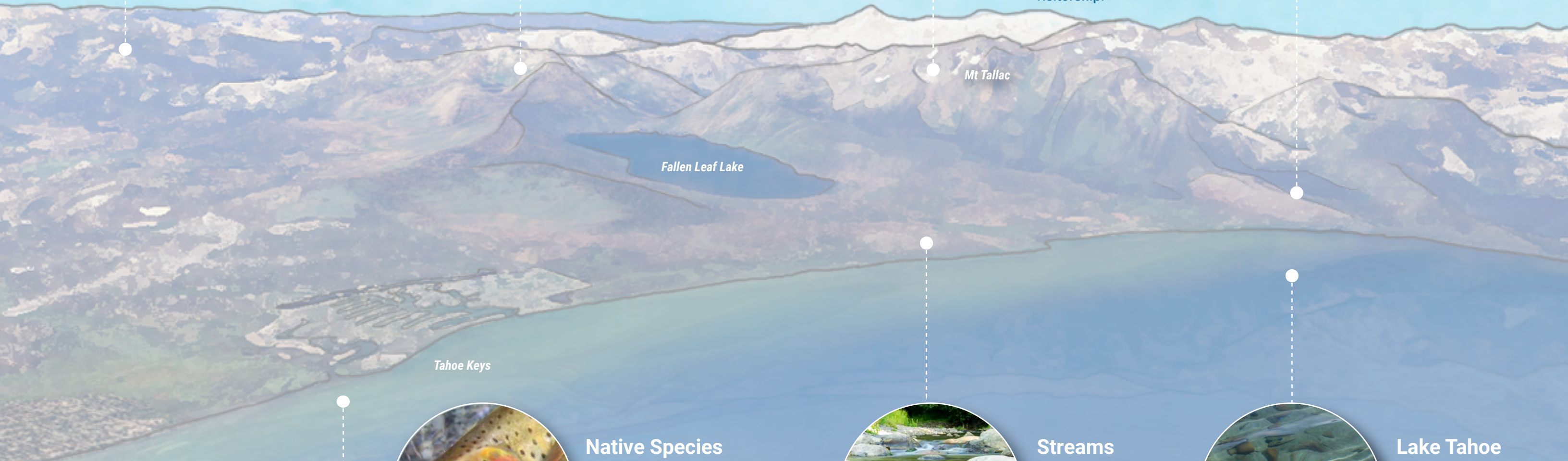
## Recreation and Tourism

Decreased snowpack undercuts the winter tourism economy, while extreme lake level fluctuations and wildfire smoke threaten summer visitorship.



## Transportation

Avalanches, flooding, and landslides disrupt highways, travel, and emergency access.



## Native Species

Warming temperatures and changes in precipitation lead to loss of habitat and decline or extirpation of native species.



## Streams

Reduced snowpack, flooding, and earlier peak stream runoff degrade water quality, alter stream ecology, and damage infrastructure.



## Lake Tahoe

Warmer lake temperatures and diminished deep-water mixing reduce the Lake's famed clarity and cause algal blooms along the shoreline.