



LAKE COUNTY

Climate Adaptation Plan

**Lake County Board of Supervisors
Public Hearing**

January 13, 2026



Today's Presentation

1. Requested Action
2. Project Team
3. Climate Adaptation Plan
Overview
4. Climate Vulnerability Analysis
5. Pillars of Landscape Resilience
6. Community Engagement
7. Contents of the CAP
8. Next Steps



Requested Action

Recommend the Board of Supervisors adopt the resolution adopting the Lake County Climate Adaptation Plan.

Project Team

Key County Staff

- **Mireya G. Turner, Community Development Department Director**
 - **Shannon Walker-Smith, Deputy Community Development Administrator**
 - **Terre Logsdon, Office of Climate Resiliency**
 - Office of Emergency Services
 - Public Services Department
 - Water Resources Department
 - Economic Development Department
- Agriculture Commissioner's Office
Public Health Department
Public Works Department

Resource Conservation District

- John Vandervort, Conservation Program Manager

City Staff

- Alan Flora, City Manager, City of Clearlake
- Mark Roberts, Senior Planner, City of Clearlake
- Kevin Ingram, City Manager, City of Lakeport

PlaceWorks (Consultant)

- **Tammy L. Seale, Principal**
- **Jacqueline Protsman Rohr, Project Manager**
- Autumn Paynton, Project Planner
- Miles Barker, Associate

Project Background



- 2018: The Lake County Community Risk Reduction Authority (CRRA) was established in 2018 and expanded in 2019 and 2021.
- 2022: Lake County Office of Climate Resiliency formed.
- 2023: CRRA approved the Pillars of Landscape Resilience.
- 2023: The County, with the RCD and cities as partners, received an Adaptation Planning Grant from the Governor's Office of Land Use and Climate Innovation for Planning for an Equitable Climate-Safe Lake.
- 2024: Development of the Climate Vulnerability Analysis, Countywide Evacuation Study, and Climate Adaptation Plan began concurrent with Lake County 2050 (General Plan Update).
- 2025: Community engagement for the Climate Vulnerability Analysis and Climate Adaptation Plan was conducted between August and November 2025.

Climate Adaptation Plan Overview

What is a Climate Adaptation Plan?

A roadmap for building climate resilience across Lake County.

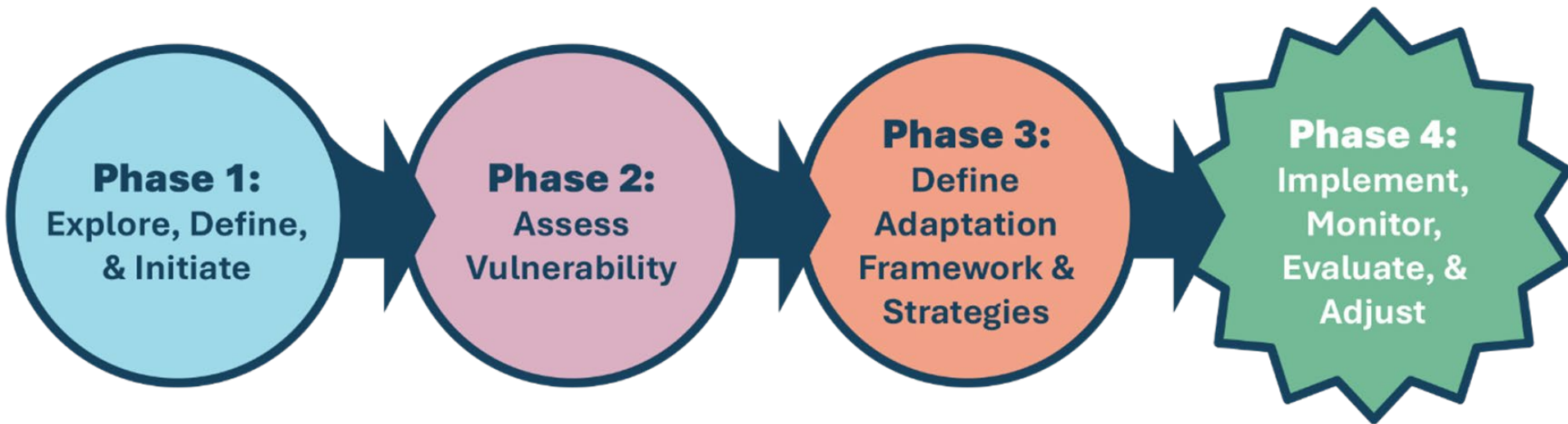
Key Features:

- Identifies the key climate hazards and the most vulnerable communities, natural systems, and built assets.
- Integrates with the existing City and County plans, programs, and initiatives.
- Provides practical, feasible strategies and actions to reduce climate risks and vulnerabilities.

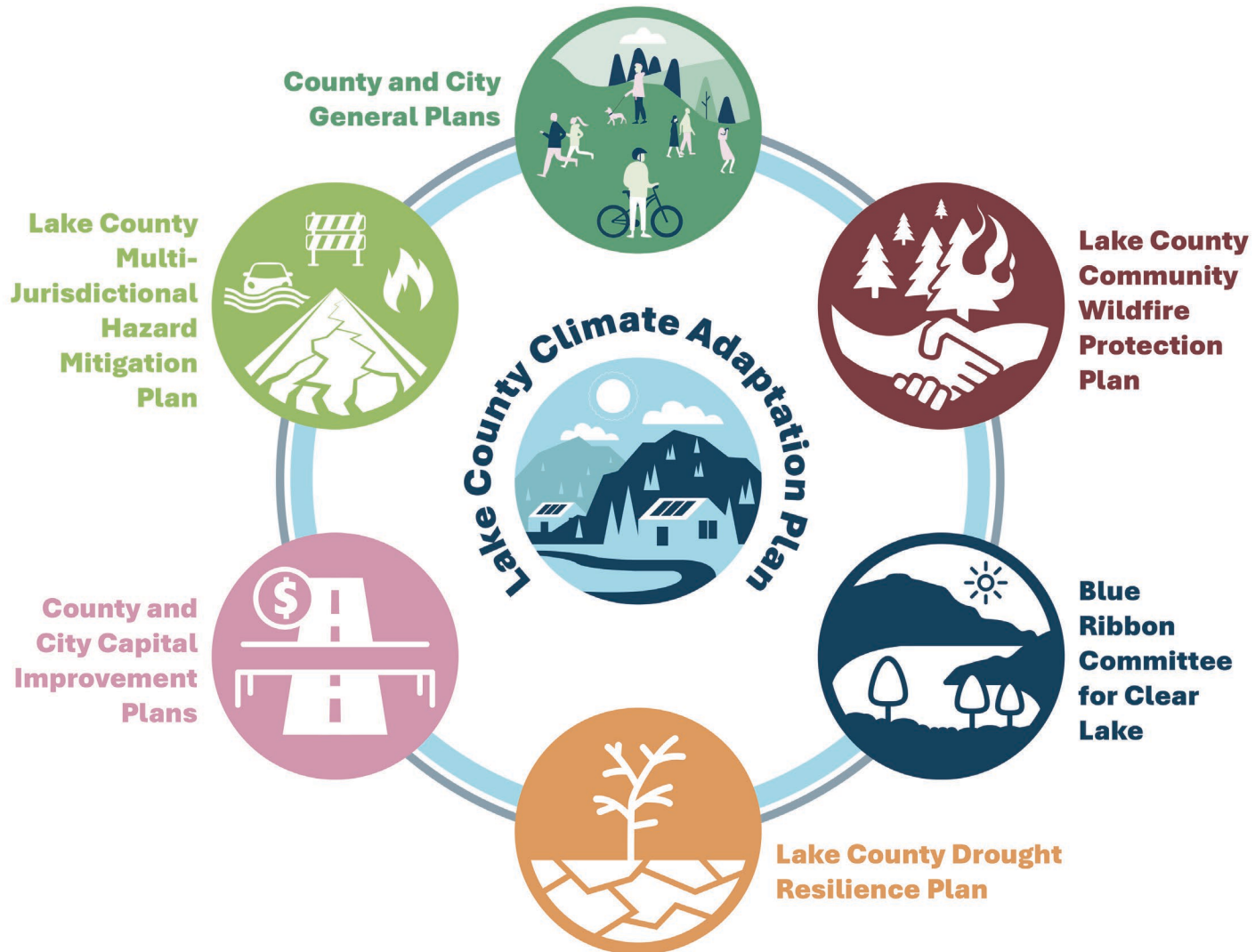


Climate Adaptation Plan Process

Based on the California Adaptation Planning Guide 4-step process:



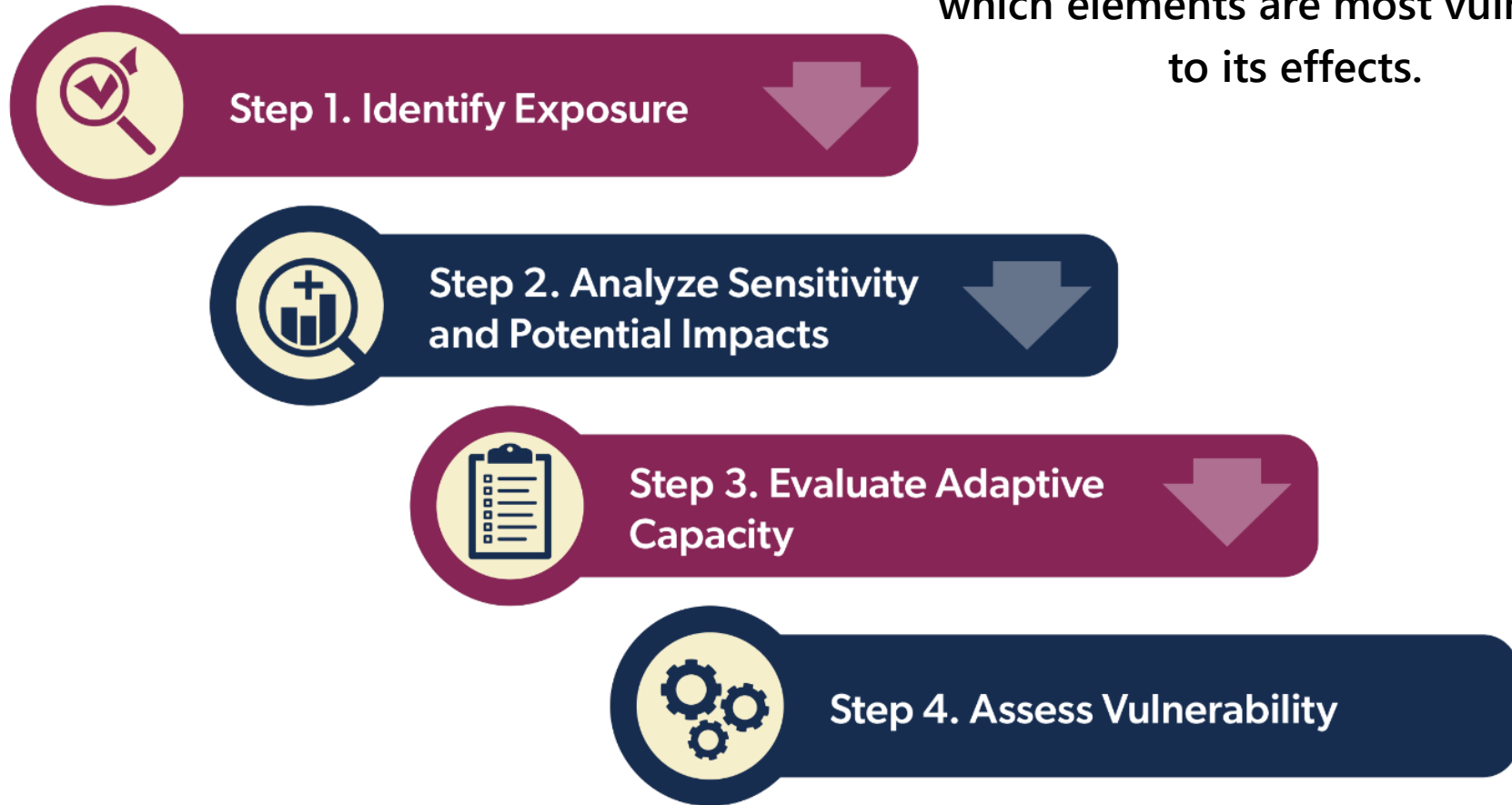
Integration with Other Plans



Climate Vulnerability Analysis

What is a Vulnerability Analysis?

An assessment of how a changing climate may harm the county, and which elements are most vulnerable to its effects.



Climate Hazards Analyzed



Agriculture and
Forestry Pests and
Diseases



Human Health
Hazards



Drought



Landslides and
Debris Flows



Extreme
Temperatures



Severe
Weather



Flooding



Wildfire and
Smoke

Key Findings

Wildfire and smoke create the most vulnerabilities countywide.

- **Most Vulnerable**

Populations:

- People of color and immigrant communities.
- Households in poverty.
- Persons with chronic illnesses and/or disabilities.
- Older adults.
- People with high outdoor exposure.
- Persons in tribal communities.

- **Most Vulnerable Assets:**

- Energy and communication infrastructure and services.
- Homes (especially older, manufactured homes).
- Transportation infrastructure.
- Agriculture.
- Outdoor recreation and tourism.

Pillars of Landscape Resilience

Pillars of Landscape Resilience

- Adopted by Lake County's Office of Climate Resiliency in 2023.
- Provides goals and metrics for measuring progress toward ecosystem and community resilience.



Pillars of Landscape Resilience



Air Quality



Fire Dynamics



Biodiversity
Conservation



Forest Resilience



Carbon
Sequestration



Social and Cultural
Well-Being



Economic Diversity



Water Security



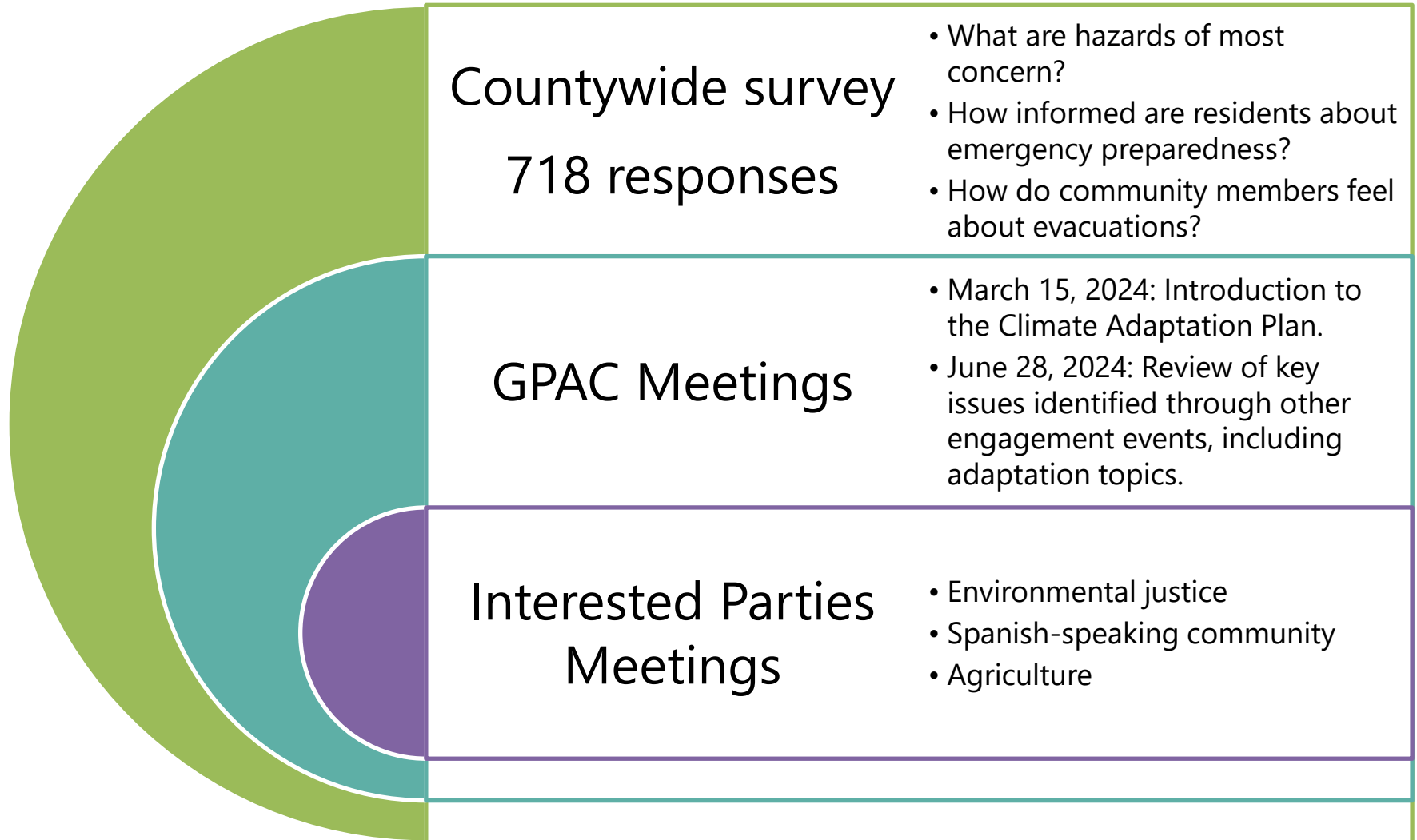
Fire-Adapted
Community



Wetland Integrity

Community Engagement

Lake County 2050 Outreach



Tribal Consultation and Engagement

- **Tribal Consultation Process (February 2024 – January 2025)**
 - Contacted 26 Tribal Nations, direct consultations with 6 Tribes.
 - Key takeaways
 - Wildfires, drought, flooding, and pest outbreaks threaten access to traditional gathering areas, medicinal plants, and ceremonial resources.
 - Smoke and heat hazards affect both Tribal members working in agriculture and the broader community.
 - Identified existing prescribed and cultural burning programs.
 - Identified housing challenges, particularly for younger Tribal members who face limited options and aging housing stock.
- **Meeting with Tribes on October 31, 2025**
 - Tribes emphasized the importance of integrating traditional ecological knowledge and culturally informed land stewardship practices into climate adaptation.

Vulnerability Analysis and CAP Engagement

Climate Vulnerability Analysis Survey

August – September 2025

- 7 questions to request input on findings, community resources and barriers, and ideas for building resilience
- Received 151 responses

Interested Parties and Agency Meetings

September 2025

- Community-based organizations
- Agriculture representatives
- Business groups
- Environmental groups
- City/County Department Staff

RRA Townhall

September 2025

- Discussion of existing programs and resources for community resilience
- Funding and communication as primary barriers
- Strong community support for climate adaptation

Study Sessions

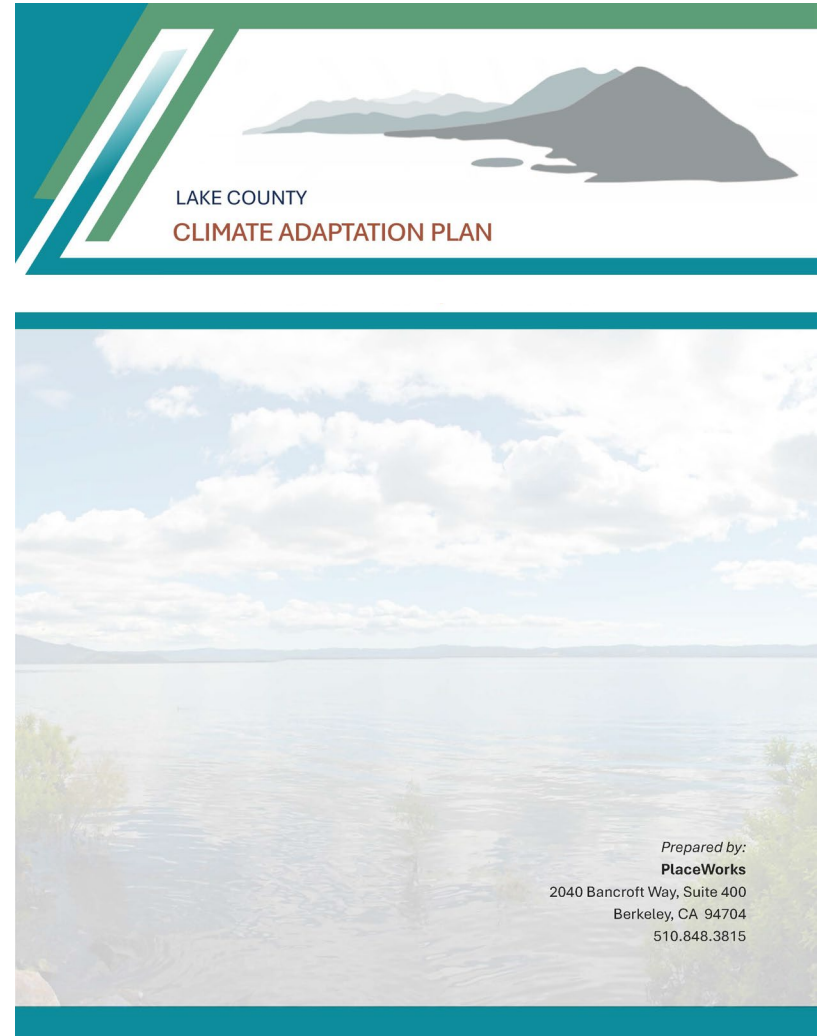
October – November 2025

- Municipal Advisory Committees
- GPAC/LAPACs
- Lake County Planning Commission
- Lake County Board of Supervisors
- Lakeport City Council
- Clearlake City Council

The Lake County Climate Adaptation Plan

Adaptation Plan Overview

- **Plan Purpose & Scope:**
 - Covers Lake County, Clearlake, and Lakeport.
 - Organized by the Pillars of Landscape Resilience.
- **Key Features:**
 - Summarizes technical analyses.
 - Identifies adaptation and resilience strategies that provide multiple benefits.
 - Leverages existing partnerships and programs.



Resilience Strategy and Action Framework

Organization:

- **Goals** - Broad outcomes describing desired future conditions.
- **Strategies** - Policies, programs, and approaches to achieve goals.
- **Actions** - Specific implementation steps for strategies.
 - Responsible & supporting agencies
 - Timeframes (Short/Mid/Long-term)
 - Cost estimates
 - Funding sources

Draft Resilience Goals (1 to 5)



1. Advance community resilience to smoke and poor air quality events.



2. The County's network of native species and ecological communities is healthy, abundant, and distributed across the landscape to support and sustain their full ecological and cultural roles.



3. Enhanced carbon sequestration capacity across forests, agricultural and working lands, and wetlands to support climate resilience and provide other ecological and community benefits.



4. A sustainable and resilient natural resource-based economy.



5. Fire-prepared and resilient communities with the capacity to manage desired fire and suppress unwanted fire while protecting lives, housing, and critical infrastructure.

Draft Resilience Goals (6 to 10)



6. Fire burns in an ecologically beneficial and socially acceptable way that perpetuates landscape heterogeneity and rarely threatens human safety or infrastructure.



7. Resilient forest ecosystems that provide essential ecosystem services, support cultural heritage, and sustain economic opportunities.



8. A community connected with nature to recreate, maintain, and improve overall health and contribute to environmental stewardship as a critical component of their identity.



9. Reliable, safe, and equitable access to clean, potable water for all Lake County communities.



10. Protected and restored wetland and riparian ecosystems provide essential ecosystem services, provide natural climate resilience benefits, and are key linkages between upland and aquatic systems in forested landscapes.

Proposed Strategies by Goal (1 to 4)

Air Quality

- Infrastructure for Wildfire Smoke Protection
- Community Wildfire Smoke Response Programs
- Air Quality Protocol Integration into Public Operations and Services

Biodiversity Conservation

- Habitat Connectivity and Interagency Coordination
- Comprehensive Invasive Species Management
- Aquatic Habitat Protection and Restoration

Carbon Sequestration

- Natural Carbon Sequestration, Management, and Coordination
- Carbon-Smart Agricultural and Grassland Practices
- Considerations in Planning and Development

Economic Diversity

- Climate-Resilient Agriculture and Small Businesses
- Sustainable Outdoor Recreation Economy
- Support for Vulnerable Businesses
- Tribal Economic Sovereignty

Proposed Strategies by Goal (5 to 8)



Proposed Strategies by Goal (9 to 10)

Water Security

- Water Quality Monitoring and Improvement
- Water Supply Infrastructure and Emergency Coordination
- Water Conservation and Drought Resilience for Vulnerable Populations

Wetland Integrity

- Existing Wetland Programs
- Nature-Based Solutions for Flood Control and Stormwater Management

Action Types

- **Programmatic:** Expand or create new programs, activities, and initiatives.
- **Plans/Regulations:** Develop or revise policies, plans, regulations, and guidelines.
- **Capital Improvement/Infrastructure Projects:** Address physical and functional deficiencies and needs in the built and natural environment.
- **Education/Outreach/Coordination:** Initiate or expand partnerships and relationships, communicate and share information, and building awareness.
- **Evaluation:** Improve feedback, input, and data and information or conduct further or new analyses.

Next Steps

Recommendation

**Recommend the Board of Supervisors
adopt the resolution adopting the Lake
County Climate Adaptation Plan.**

Next Steps

- City of Clearlake City Council Hearing: January 15, 2025
- City of Lakeport City Council Hearing: January 20, 2025
- Additional Questions or Comments?

Please contact Mireya Turner

Lake County Community Development Director

LakeCounty2050@lakecountyca.gov

Visit the project website at:
<https://lakecounty2050.org/>

Thank you