



CALIFORNIA
WILDFIRE & FOREST RESILIENCE
TASK FORCE

WILDFIRE AND
LANDSCAPE RESILIENCE

REGIONAL OVERVIEWS

JUNE 2026



Table of Contents

NORTHERN CALIFORNIA 1

 Mobilizing Action in NORTHERN CALIFORNIA2

 Regional Significance3

 Regional Current Conditions & Primary Threats4

 Science-Based Keys to Resilience for Northern California Landscapes.....4

 Regional Success Stories5

SIERRA NEVADA..... 6

 Mobilizing Action in the SIERRA NEVADA7

 Regional Significance9

 Regional Current Conditions and Primary Threats9

 Science-Based Keys to Sierra Nevada Landscape Resilience..... 10

 Reduce Forest Density and Introduce Heterogeneity at a Landscape Scale..... 10

 Regional Success Stories 11

CENTRAL COAST 13

 Mobilizing Action in the CENTRAL COAST 14

 Regional Significance 15

 Regional Current Conditions and Primary Threats 16

 Science-Based Keys to Central Coast Landscape Resilience 16

 Regional Success Stories 17

SOUTHERN CALIFORNIA 19

 Mobilizing Action in SOUTHERN CALIFORNIA20

 Regional Significance21

 Regional Current Conditions and Primary Threats22

 Science-Based Keys to Southern California Landscape Resilience23

 Regional Success Stories24



**NORTHERN CALIFORNIA
REGIONAL WILDFIRE
& LANDSCAPE RESILIENCE**



MOBILIZING ACTION IN NORTHERN CALIFORNIA

Northern California Organizational Landscape

The Northern California region is the ancestral territory of more than 35 California Native American tribes, many of whom have the capacity to engage in formal and informal collaborations as sovereign nations, while others continue land stewardship, as they have for millennia, outside of formal collaboration. Four national forests cover nearly 6 million acres, while Redwood National and State Parks protect 132,000 acres that include some of the world's tallest trees.

Three local resource management entities are Regional Forest and Fire Capacity (RFFC) grantees for the region: the [North Coast Resource Partnership](#), the [Inner Coast Collaborative](#), and the [Northern Sacramento Valley Coalition](#). These three organizations have worked independently and collaboratively to build a cohesive vision and set of objectives for the Northern California landscape. As part of the RFFC program, they develop and implement regional priority plans to improve forest health and fire resiliency consistent with the recommendations of this Action Plan.

A diverse network of partners implements projects in Northern California, including prescribed burn associations, fire safe councils, counties and cities, fire departments and districts, non-profit organizations, and resource conservation districts (RCDs).

Northern California Priorities and In-Progress Activities

Each of the three RFFC grantees is producing publicly available regional priority plans (RPPs) that identify and prioritize projects to improve forestry, fire protection, and forested watersheds in their jurisdictions:

- Twenty years of work by the [North Coast Resource Partnership](#) members has refined the skills and knowledge of the people on the ground and supported production of the North Coast [Regional Resilience Plan and Project Tracker](#).
- The [Northern Sacramento Valley Coalition](#) is compiling active projects into a central standardized map to support project inventory and kick start its RPP, with an anticipated roll out in 2026.
- The [Inner Coast Collaborative](#) is mapping partners and community members to engage in the development of their RPP, with an anticipated rollout of the RPP in 2026.

All national forests in the Northern California region have developed landscape-scale projects under the National Environmental Policy Act to advance prescribed fire and fuels management across their jurisdictions. In April 2024, the Mendocino National Forest adopted a [forest-wide](#) Prescribed Fire and Fuels Management Strategy, which allows for up to 20,000 acres of treatments annually. To implement the strategy, the Forest is



working closely with members of the Northern Sacramento Valley Coalition. The Six Rivers National Forest has adopted a forest-wide Fire and Fuels Management Plan that allows for up to 20,000 acres of prescribed burning annually. Similarly, the Klamath and Shasta-Trinity national forests are seeking approval of a [prescribed fire project](#) that envisions treating up to 100,000 acres annually. Together, these four projects authorize fire resilience treatments totaling 140,000 acres across a combined 5.5 million acres of forest.

Northern California counties are also engaged in wildfire resilience efforts; the Wildfire County Coordinator Program (WCCP) – a partnership between the California Fire Safe Council and CAL FIRE – has worked to grow county-level capacity statewide. For example, the Del Norte County Coordinator has initiated a county-level Community Wildfire Protection Plan (CWPP), in consultation with CAL FIRE, the Six Rivers National Forest, the Tolowa Dee-ni' Nation, Del Norte RCD, and the Smith River Alliance. The plan will emphasize regional fuel break connectivity, defensible space, and high-value community protection zones.

Regional Significance

The Landscapes of Northern California Provide for People and Wildlife

Northern California is a source of immense biological diversity, water supply, and a variety of intact wildlands. Home to nearly two million people in 15 primarily rural counties, the region is economically disadvantaged, with nearly half of its population living below the poverty line. Its network of working lands, open spaces, and wildlands supports a natural resource economy, including timber, ranching, agriculture, and recreation. Northern California's iconic redwood and mixed conifer-hardwood forests store large amounts of carbon, provide habitat to diverse wildlife, and support the watersheds, including the largest in the state, the Sacramento River Watershed, that deliver surface water for communities across the state.

Historical Fire Regimes of Northern California

Northern California's oak woodlands, coastal redwoods, and mixed conifer forests are highly adapted to frequent, low-severity fire from lightning ignitions and over 13,000 years of cultural burning by Indigenous peoples. More than a century of fire exclusion and preferential harvest of the largest trees have profoundly altered the fire regimes in these ecosystem types.

Northern California's shrubland ecosystems are adapted to infrequent, high-severity fires. In the region's sparsely populated areas, shrublands may have experienced less fire over the past century than during historical periods due to the suppression of Indigenous burning practices. However, in some parts of the region's wildland-urban interface (WUI), increases in unwanted human-caused ignitions have shifted the fire



regime toward excessive fire frequency, in some cases leading to loss of woody shrubland cover and replacement with flammable annual grasses.

Regional Current Conditions & Primary Threats

Converging Stressors Threaten Wildland Integrity in Northern California

Today, Northern California forests are generally overly dense. This impacts watershed health, the development of mature old growth habitat, and increases tree stress. After decades of suppression, wildfire is now returning to these densely forested landscapes as large, high-severity wildfires. The region's forests are primarily dominated by small-diameter second growth stands that have been further stressed by invasive species and pathogens, warming temperatures, decreased precipitation, more variable precipitation events, and a reduced snowpack, creating conditions for dangerous fires to proliferate. Although coastal redwoods are adapted to both low- and high-severity fire, some high-severity fires in recent years have caused redwood mortality in this region. Diminishing levels of summertime fog due to climate change also threaten the survival of this fog-dependent tree species.

Two of the three largest fires in state history occurred in or adjacent to the forested parts of this region. The 2020 August Complex Fire burned more than 1 million acres, primarily in conifer forest, and the 2018 Mendocino Complex Fire burned a mixture of conifer forest, chaparral, and oak woodlands.¹ The increased flammability and rate of unwanted human-caused ignitions in Northern California shrublands in the WUI have also led to highly destructive and fatal fires, including the 2017 Tubbs fire that killed 22 people.²

Science-Based Keys to Resilience for Northern California Landscapes

Reduce Tree Density and Fuel Continuity

The density of forests and continuity of fuels in Northern California must be reduced to improve forest health and mitigate wildfire risk. A variety of activities, including but not limited to tribal cultural fire, mechanical thinning, and managed wildfire, can all help accomplish the needed landscape-scale changes to vegetation structure in Northern California forests. Scaling up this work can be supported by strategies such as aligning with watershed restoration projects and engaging private landowners. Regional planning documents, such as the [North Coast Resource Partnership Resilience Plan](#), provide comprehensive strategies and approaches.

¹ CAL FIRE. (2025). Redbooks [Dataset]. <https://www.fire.ca.gov/our-impact/statistics>

² CAL FIRE. (2025). Redbooks [Dataset]. <https://www.fire.ca.gov/our-impact/statistics>



Reduce the Frequency and Spread of Wildfires in Shrublands at the Wildland-Urban Interface

Too much fire in shrublands within the WUI of Northern California is driving dangerous wildfire activity and vegetation type conversion to invasive annual grasses. Reducing wildfire ignitions, managing the spread of fires with strategic fuel breaks, and protecting or restoring native vegetation can help reduce risk to communities in the WUI.

Importantly, not all shrublands in Northern California face these issues; shrublands in more remote or undeveloped areas may be overdue for wildfire, as one hasn't burned through these areas in more than 100 years. Regional planning documents, such as the [North Coast Resource Partnership Resilience Plan](#), provide comprehensive strategies and approaches.

Regional Success Stories

Hundreds of community resilience, landscape health, and wildfire resilience projects have been completed or initiated in Northern California since 2021. In addition to the examples highlighted below, many more successful projects can be explored on the regional websites linked in the Northern California Organizational Landscape section.

Reducing Hazardous Fuels in Northern California

The [Stony Gorge Hazardous Fuels Reduction](#) was a collaboration between Glenn County RCD and private landowners to reduce fuels in a very high wildfire hazard area. Invasive shrubs and dense amounts of fallen woody biomass were removed, and a thorough restoration plan was implemented to support future grazing while maintaining a 13-mile continuous fuel break.

Increasing Use of Beneficial Fire in Northern California

The [Burning Across Boundaries Project](#) supported regionwide peer-to-peer mentoring and network building in the North Coast area to restore tribal land stewardship and increase the pace, scope, and scale of forest health activities, including prescribed fire. Specifically, Karuk Tribe members mentored members of the QVIR, Pit River Tribe, and Bear River Tribes in navigating the process of developing community fire and fuels programs.³

³ North Coast Resource Partnership. (2022, November 30). Burning Across Boundaries: An Inter-Tribal Collaboration [Storymap]. <https://storymaps.arcgis.com/stories/54ed9754ea0d442c88c2e49361800460>



**SIERRA NEVADA
REGIONAL WILDFIRE
& LANDSCAPE RESILIENCE**



MOBILIZING ACTION IN THE SIERRA NEVADA

Sierra Nevada Organizational Landscape

70% of the land in the Sierra Nevada is under federal ownership; 27% is privately owned.⁴ The region's federal land includes iconic National Parks like Yosemite and Sequoia & Kings Canyon, nine of the state's 17 national forests, a Forest Service Management Unit, and two districts on the multi-state Humboldt-Toiyabe National Forest. Federal partners, along with California Native American tribes, local fire safe councils and fire departments, CAL FIRE units, resource conservation districts (RCDs), and NGOs such as The Nature Conservancy, American Forests, and the National Fish and Wildlife Foundation, constitute a robust implementation network in the Sierra Nevada region.

The Sierra Nevada Conservancy (SNC) and the California Tahoe Conservancy (CTC) are the State of California Department of Conservation Regional Forest and Fire Capacity (RFFC) Program block grantees in the Sierra Nevada. In this capacity, these state conservancies administer subgrants to regional partners to support a network of entities implementing forest health and fire resiliency projects. Within SNC's 25-million-acre jurisdiction, subgrants have been distributed among seven geographic areas. Subgrantees include RCDs, NGOs, fire safe councils, and numerous multi-organizational collaboratives, often including the USDA Forest Service and California Native American tribes.

Sierra Nevada Regional Priorities and In-Progress Activities

Both RFFC block grantees are producing publicly available regional priority plans (RPP) that identify and prioritize projects to improve forestry, fire protection, and forested watersheds in their jurisdictions.

- The [Sierra Nevada Conservancy](#) (SNC) released a [draft RPP](#) in January 2026 as an interactive database and map that shows where collaborative groups are working across the SNC service region. The draft RPP also provides information on collaborative membership, governance, projects, and readiness for landscape-scale work. These collaboratives are typically multi-organizational and have defined geographic scopes, existing capacity to execute projects, and existing strategic project plan portfolios. From 2023 to 2025, the number of SNC-supported regional collaboratives ready to implement landscape-scale work nearly tripled, increasing from 6 to 15 partnerships.

⁴ Task Force Science Advisory Panel. (2022). Sierra Nevada Regional Profile.



- The [California Tahoe Conservancy](#) RPP is in development and is expected to reflect strategies articulated in the [Lake Tahoe Basin Forest Action Plan](#) for completing and maintaining wildland-urban interface treatments and implementing large-landscape restoration.

Every national forest within the Sierra Nevada region is pursuing large, multi-objective projects, and many forests are integral partners in multi-organizational collaboratives. For example:

- The Eldorado National Forest is a key participant and often the location for projects within the [Healthy Eldorado Landscape Partnership](#).
- The Lassen National Forest is proposing the West Lassen Headwaters Landscape Restoration Project, an approximately 101,000-acre project to improve forest resilience, restore watershed health and reduce fuels to protect local communities.
- The Lake Tahoe Basin Management Unit is a key participant in the Lake Tahoe West Restoration Partnership, which is actively planning over 44,000 acres of restoration activities. The unit has also instituted the [Restoration of Fire-adapted Ecosystems Project](#), which has prepared for intentional burning and other treatments to restore six priority wet meadows in the Lake Tahoe basin.
- The Tahoe National Forest, Lake Tahoe Basin Management Unit, and Eldorado National Forest are integral partners in the Tahoe-Central Sierra Initiative, which has adopted a 10-Year Regional Plan to restore resilience across 2.4 million acres.
- The Sierra National Forest is beginning restoration of more than 40,000 acres within the footprint of the 2020 Creek Fire.
- The Inyo National Forest helps to lead the [Eastern Sierra Climate & Communities Resilience Project](#), a long-term initiative focused on ecosystem health and reducing the risk of extreme wildfires over 65,000 acres.
- The Stanislaus National Forest is implementing the Social and Ecological Resilience Across the Landscape (SERAL) project to restore forest resilience across 160,000 acres.
- The Plumas National Forest is leading multiple forest resilience projects targeting the impacts of large-scale wildfires, including the Dixie and Moonlight fires.

Sierra Nevada counties are also engaged in wildfire resilience efforts; the Wildfire County Coordinator Program (WCCP) – a partnership between the California Fire Safe Council and CAL FIRE – has worked to grow county-level capacity statewide:

- The Butte County Collaborative Group has added capacity for county-scale defensible space and home hardening education and outreach.
- The Nevada County Coordinator (housed within the Nevada County Office of Emergency Services) leveraged WCCP funding to complete an Education and



Outreach Library, exemplifying the role of County Coordinators as resilience hubs.

Regional Significance

Protecting Landscapes and Essential Ecosystem Services in the Sierra Nevada

The Sierra Nevada region is home to many of California's most iconic natural landmarks and landscapes, from oak woodlands to conifer forests and Great Basin rangelands. These diverse landscapes support not only tourism and regional economic activity but also a wealth of ecosystem services that benefit Californians statewide. 60% of the state's developed water supply, 50% of the state's forest carbon, and most of the state's hydroelectric power all originate in this region.⁵

Historical Fire Regimes in the Sierra Nevada

While the region is home to diverse vegetation types, conifer forests largely dominate the Sierra Nevada landscape. At low-to-mid elevations, the zone where most Sierra Nevadans reside, forests are highly adapted to frequent, low- to moderate-severity fires from lightning activity and burning by Indigenous People. However, a history of extensive logging and subsequent fire exclusion has made conifer forests in the Sierra Nevada very densely vegetated with many small- to medium-sized trees, increasing their susceptibility to catastrophic wildfire.

Regional Current Conditions and Primary Threats

Fire Exclusion and Climate Change have made Fires in the Sierra Nevada more Severe and Harmful

The legacy of logging and fire exclusion in the Sierra Nevada, combined with increasing temperatures, periodic severe drought, and the decline of seasonal snowpack due to climate change, has created dry, dense conditions in the region's forests. Under these conditions, forests are more susceptible to the stress of severe drought, infestations of pests like western pine beetles, and high-severity fires. Four of the eight largest fires in modern California history have occurred in the Sierra Nevada since 2020.⁵

While the long-term deficit of fire across the landscape suggests that forests could benefit from more acres burning each year, an unprecedented increase in fire severity means that these additional acres of fire are largely causing harmful, rather than restorative, effects on the landscape. During the 2021 fire season, more than 1.5 million

⁵ CAL FIRE. (2024). Top 20 Largest California Wildfires. <https://www.fire.ca.gov/our-impact/statistics>



acres burned in the Sierra Nevada. The portion of those acres that burned in high-severity fire was 18 times greater than the historical average.⁶ The increase in high severity, stand-replacing fire is driving forest cover loss generally, and is especially concerning for species with small, discrete populations and limited distribution, like the giant sequoia^{7,8} and California spotted owl.⁹

Science-Based Keys to Sierra Nevada Landscape Resilience

Reduce Forest Density and Introduce Heterogeneity at a Landscape Scale

Forests that are less dense and have more diverse species, age classes, and spatial arrangements are less moisture-stressed, with smaller total fuel loads and lower fuel continuity, reducing the risk of catastrophic, high-severity wildfire. Mechanical thinning operations and beneficial fire can reduce tree density and introduce heterogeneity.

Restore Beneficial Fire Regimes

Sierra Nevada ecosystems are highly fire-adapted. A long-term deficit of beneficial fire contributes to the region's current wildfire, forest health, and drought stress challenges. Safely returning beneficial fire as an ongoing ecological process in Sierra Nevada forests can enhance long-term forest health, reduce the risk of catastrophic wildfire, increase water availability, and restore and conserve critical havens of biodiversity. Open old growth forests, oak groves, meadows, and aspen are key vegetation types that have declined due to fire exclusion in the Sierra Nevada. Restoring these vegetation types can foster resilience to wildfire by enhancing natural firebreaks that also support rare plants and animals

Provide for Future Forest Cover

There is a substantial need for reforestation in much of the Sierra Nevada. The large areas recently burned by high-severity fires will likely lose forest cover and provide fewer

⁶ Sierra Nevada Conservancy. (2022, January 24). 2021: Another historic fire season. Sierra Nevada Conservancy. <https://SierraNevadanevada.ca.gov/2021-another-historic-Sierra-Nevada-nevada-fire-season/>

⁷ Shive, K. L., Wuenschel, A., Hardlund, L. J., Morris, S., Meyer, M. D., & Hood, S. M. (2022). Ancient trees and modern wildfires: Declining resilience to wildfire in the highly fire-adapted giant sequoia. *Forest Ecology and Management*, 511, 120110.

⁸ Soderberg, D. N., Das, A. J., Stephenson, N. L., Meyer, M. D., Brigham, C. A., & Flickinger, J. (2024). Assessing giant sequoia mortality and regeneration following high - severity wildfire. *Ecosphere*, 15(3), e4789. <https://doi.org/10.1002/ecs2.4789>

⁹ Jones, G. M., Kramer, H. A., Whitmore, S. A., Berigan, W. J., Tempel, D. J., Wood, C. M., Hobart, B. K., Erker, T., Atuo, F. A., Pietruni, N. F., Kelsey, R., Gutiérrez, R. J., & Peery, M. Z. (2020). Habitat selection by spotted owls after a megafire reflects their adaptation to historical frequent-fire regimes. *Landscape Ecology*, 35(5), 1199–1213. <https://doi.org/10.1007/s10980-020-01010-y>



ecosystem services without timely intervention. An additional ecological and community protection benefit of timely reforestation is that establishing healthy young tree stands and removing partially burned trees during the preparatory stage of reforestation can reduce the likelihood of a high-severity reburn.¹⁰

Regional Success Stories

Fuel Breaks in the Sierra Nevada

Sierra Nevada regional leaders note the [community protection benefits of recent fuel break development efforts](#). During the 2024 Park Fire that burned 450,000 acres and destroyed more than 700 structures, firefighters were able to protect the towns of Cohasset and Forest Ranch thanks to a network of fuel breaks completed by the Butte County Fire Safe Council with support from the SNC, CAL FIRE, and others.¹¹

A major collaborative effort is underway in the Sierra Nevada to construct and maintain shaded fuel breaks to reduce wildfire risks. This involves a partnership between the USDA Forest Service, CAL FIRE, Sierra Pacific Industries, and other entities. The goal is to create 400 miles of fuel breaks to help protect communities and resources in California and Oregon.

Beneficial Fire in the Sierra Nevada

Beneficial fire is returning to Sierra Nevada landscapes, and the positive impacts are already observable. In the [Caples Creek watershed](#), a multi-agency effort to reduce forest fuels over several thousand acres involved a mix of prescribed fire and wildfire, preserving old forests in the watershed and reducing burn severity when the 2021 Caldor Fire reached the treated area.¹²

Reforestation in the Sierra Nevada

In the Sierra Nevada region, [pilot emergency forest restoration teams](#) (EFRTs) were formed following the 2021 Caldor, Dixie, and Tamarack fires to assist private forest landowners in reforesting burned land. These teams utilized special disaster relief

¹⁰ Coppoletta, M., Merriam, K. E., & Collins, B. M. (2016). Post-fire vegetation and fuel development influences fire severity patterns in reburns. *Ecological Applications*, 26(3), 686–699. <https://doi.org/10.1890/15-0225>

¹¹ Sierra Nevada Conservancy. (2025, January 7). Communities protected from Park Fire. Sierra Nevada Conservancy. <https://SierraNevadanevada.ca.gov/snc-funded-fuel-treatments-protected-butte-county-communities-from-park-fire/>

¹² Sierra Nevada Conservancy. (2021, December 21). Good fire project protects Caples watershed from Caldor Fire. Sierra Nevada Conservancy. <https://SierraNevadanevada.ca.gov/good-fire-project-protects-caples-watershed-from-caldor-fire/>



funding from the USDA Forest Service and CAL FIRE. Between 2021 and 2023, the pilot EFRTs completed over 2,500 acres of dead tree removal and about 1,400 acres of conifer planting.¹³

Growth of the Wood Products Industry in the Sierra Nevada

For the first time in decades, a new sawmill, [Tahoe Forest Products Mill](#), was opened in 2024 through tribal and private partnerships to serve the Sierra Nevada region. This mill, located on Washoe Tribal lands, is supporting wood utilization from the Caldor Fire and other USDA Forest Service active forest management projects in the coming years.¹⁴ Another sawmill construction project, the Alpenglow Timber project, has received public and private funding and is slated for construction near Truckee in 2025.

¹³ Report Summary: Emergency Forest Restoration Teams – Lessons from the First Two Years. Prepared by Daylin Wade; Release Date July 3, 2024 UC Cooperative Extension Post-fire Forest Resilience Outreach and Education Initiative. <https://ucanr.edu/sites/default/files/2024-08/399372.pdf>

¹⁴ Forest Service Pacific Southwest Region, & Avitt, A. (2024, February 26). Producing Opportunity: New Sawmill Opens in the Sierra Nevada. <https://www.fs.usda.gov/r05/newsroom/stories/producing-opportunity-new-sawmill-opens-sierra-nevada#:~:text=The%20Tahoe%20Forest%20Products%20Sawmill%20was%20awarded%20a%20grant%20from,affected%20by%20the%20Caldor%20Fire.>



**CENTRAL COAST
REGIONAL WILDFIRE
& LANDSCAPE RESILIENCE**





MOBILIZING ACTION IN THE CENTRAL COAST

Central Coast Organizational Landscape

The Regional Forest and Fire Capacity (RFFC) block grantee for the Central Coast, the State Coastal Conservancy (SCC), is developing broad-based partnerships among stakeholders, implementation partners, and decision-making entities. In this capacity, SCC has administered subgrants to nine collaboratives leading regional wildfire resilience planning covering the entirety of the Central Coast region.

Landscape-scale projects on the Central Coast are often designed and implemented by collaboratives that include state, federal, and local organizations, such as the U.S. National Park Service, USDA Forest Service, California State Parks, CAL FIRE Units, regional park and open space districts, land trusts, and nonprofits. Across the region, resource conservation districts (RCDs) serve as leaders bridging land management work across projects that include private and public lands.

Many of the restoration efforts on the Central Coast depend on state, local, and private efforts, given the limited extent of national forests and California Native American tribal lands in the region. Accordingly, California Native American communities have pursued efforts to reestablish Indigenous stewardship in places such as the [Pepperwood Preserve](#) and the [Año Nuevo State Reserve](#).

Central Coast Regional Priorities and In-Progress Activities

SCC has developed a [strategic plan \(2023-2027\)](#) that provides a roadmap for the years ahead and describes the role of SCC and its partners in implementing state and regional environmental plans, including this Action Plan.

Each of the RFFC subgrantees is producing publicly available regional priority plans (RPPs) that identify and prioritize projects to improve forestry, fire protection, and forested watersheds in their jurisdictions:

- Of the nine subgrantees, Marin and Santa Barbara counties have completed RPPs, the [Marin Forest Health Strategy](#), and [Santa Barbara's Regional Priority Plan for Wildfire Resilience and Ecosystem Health](#), respectively, and implementation is in progress.
- Alameda and Contra Costa counties completed a plan in 2022 and are finalizing an update that focuses on prioritization and project development.
- The other six SCC subgrantees are in various stages of developing their regional priority plan: Santa Cruz Mountains (Santa Cruz, San Mateo, and part of Santa Clara counties) and San Luis Obispo County are scheduled to complete their plans in the summer of 2025, while San Benito, Santa Clara, Monterey and Ventura counties will follow close behind.



Many of the subgrantee counties are engaged in partnerships to better steward the land and increase the scale of their work; the [Santa Cruz Mountains Stewardship Network](#) is a 25-organization partnership that includes public agencies, California Native American tribes, water utilities, universities, private industry, and land trusts. Recovery and restoration after the 2020 CZU Lightning Complex Fires has been a major effort; in the past five years, they treated more than 100,000 acres and completed [fine-scale vegetation mapping](#). Similarly, [One Tam](#), a stewardship collaborative in the Mt. Tamalpais watershed, is a partnership of four Marin County public agencies and the nonprofit Golden Gate National Parks Conservancy. One Tam has been leading an effort to overcome barriers to collaboration, develop and share partnership resources and efficiencies, build awareness of the value of working at larger scales, and increase investment among funders and legislators.

Regional Significance

Protecting the Diverse Mosaic of Central Coast Landscapes and Communities from Destructive Wildfire

The Central Coast is home to a mosaic of diverse landscapes and communities, including 7.7 million people, nearly 90% of whom live within the densely populated San Francisco Bay Area. Sandwiched between this urban center and Southern California's Greater Los Angeles area, are scattered cities, including Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, and Ventura, whose local economies are largely supported by tourism, agriculture, and education. Networks of undeveloped wildlands connect these cities and adjoin the many smaller communities and small privately owned parcels nestled within the wildland-urban interface.

Historical Fire Regimes on the Central Coast

The Central Coast contains incredible biodiversity, including redwood forests, coastal prairies, oak woodlands, mixed hardwood-conifer forests, shrublands, riparian corridors, and native grasslands. These diverse landscapes evolved over thousands of years with lightning-driven fires and burning by Indigenous people. Fire regimes in these vegetation types vary from frequent, low intensity (grassland, prairie, oak woodlands, redwood forest), to mixed severity (coast scrub, Douglas-fir-tanoak forests, mixed evergreen forests), and less frequent, high severity fire (chaparral, coastal and closed-cone pine and cypress forests). The relatively recent paradigm changes of fire exclusion, logging, the introduction of invasive species, the growth of human settlements, and extended fire seasons driven by climate change have led to larger and more severe fires in the region.



Regional Current Conditions and Primary Threats

Shifting Risk Perceptions and Disturbance Regimes

Despite the common perception that the coast is generally safe from wildfire due to its moist, temperate climate, increasing wildfire activity on the Central Coast in recent years has had significant social and economic consequences. The 2017 wildfire season saw some of the state's most destructive and deadly wildfires, including the Tubbs Fire, which burned 36,807 acres and resulted in 22 deaths, and the Thomas Fire, which burned 281,893 acres and resulted in 23 deaths. Three years later, the August 2020 CZU Lightning Complex burned 86,509 acres, damaged 1,490 structures, cost \$68 million in firefighting, and caused an estimated \$2.5 billion of insured losses. This fire also damaged critical infrastructure, including roads, septic and storm drainage systems, water distribution systems, and other essential public utilities. The CZU Lightning Complex is also notable for lightning being the source of the ignition, as 95% of wildfires in the region are the result of human-caused ignitions.¹⁵

Landscape health and habitat diversity in the Central Coast are threatened by additional stressors that further increase the risk of catastrophic fires, including climate-driven changes to fog, increased temperatures and drought, invasive species, the expansion of development in wildlands, and diseases and pests, including Sudden Oak Death and the Goldspotted Oak Borer.

Science-Based Keys to Central Coast Landscape Resilience

Restore Beneficial Fire Regimes

Fire regimes vary greatly across the mosaic of ecosystems on the Central Coast. Appropriate treatments to restore beneficial fire regimes and avert catastrophic fires differ between distinctive vegetation types, but mixed evergreen and redwood forests, and oak woodlands on the Central Coast would generally benefit from fuel reduction work followed by prescribed and cultural burning.

Protect and Restore Central Coast Habitat Diversity

North-to-south and coastal-to-inland ecological gradients on the Central Coast create numerous biodiversity and habitat hotspots. Preserving habitat diversity that is threatened by uncharacteristic wildfire, climate change, disease, urban development, and more will require coordinating projects across multiple ownerships and designing restoration interventions that are highly tailored to the vegetation type and local

¹⁵ Location, timing and extent of wildfire vary by cause of ignition. 13 January 2015. A. Syphard and J. Keeley. from International Journal of Wildland Fire.



context. Nearly all landscapes in this region can benefit from active interventions to preserve their long-term biodiversity and ecosystem services, such as forest treatments, non-native species management, and post-fire restoration.

Regional Success Stories

Strategic Fuel Breaks on the Central Coast

The Monterey Ranger District of the Los Padres National Forest recently received a grant from the State Coastal Conservancy to reestablish and maintain [542 acres of historically used fuel breaks](#). Mechanical and prescribed fire treatments will remove small trees and dense shrubs, leaving grass, forbs and small shrubs beneath existing mature trees where present. These fuel breaks will reduce risk for the communities of Big Sur, Palo Colorado, Cachagua, and Jamesburg, along with surrounding infrastructure and ecosystems. This grant builds on the work that started under the Joint Chiefs program through collaboration with the USDA Natural Resources Conservation Service and the Monterey RCD. The Los Padres National Forest has also partnered with UC Santa Barbara and the Santa Barbara Fire Safe Council, with funding from National Fish and Wildlife Foundation and CAL FIRE, to utilize targeted sheep grazing to reduce non-native annual grasses and replace this highly ignitable vegetation with less-ignitable native species.

Workforce on the Central Coast

The Tamien Nation has partnered with the Central Coast Rx Fire Council to train Tamien Tribal citizens and other California Native American community members to become certified Type 2 Wildland Firefighters. This capacity-building effort also includes mentoring trainees for qualification as California Certified Prescribed Burn Bosses to lead cultural prescribed burn projects. Cooperative partnerships between the Tamien Nation's [Cultural Fire Stewardship Program](#) and Henry W. Coe State Park and Santa Clara County Parks facilitate Tamien stewardship of over 130,000 acres of ancestral homeland.

Wood Utilization on the Central Coast

SCC granted \$1,000,000 to the East Bay Regional Park District (EBRPD) to expand ongoing fuel treatments for an identified 80 acres in Anthony Chabot Regional Park and [pilot a temporary biochar facility](#). A carbonator was used to treat eucalyptus removed from the park. The park experimented with various onsite uses of the 500 tons of biochar that this process yielded, and EBRPD continues to use a carbonator to process wood from large vegetation treatment areas and implementing lessons learned from the pilot project. Biochar is used throughout their parklands to enhance soil health, improve water retention, and increase crop productivity, including at the District's Ardenwood Historic Farm in Fremont. Partners across the state have visited and learned from the demonstration project.



Regulatory Efficiency on the Central Coast

In 2021, the San Mateo RCD developed one of the first [Public Works Plans](#) to streamline permitting of vegetation management activities in unincorporated San Mateo County while also meeting the need to comply with the Coastal Act. This pathway utilizes the California Vegetation Treatment Program (CalVTP) Programmatic Environmental Impact Report and serves as an alternative to both Coastal Act Local Coastal Programs and the need to obtain multiple individual coastal development permits, enabling an increased pace and scale of project implementation within existing legal frameworks. Approved activities under this public works plan include prescribed burning, mechanical treatment, manual treatment, prescribed herbivory (also known as prescribed grazing), and herbicide application.

Beneficial Fire on the Central Coast

In 2024, work was initiated on the [Aptos Truck Trail Forest Health & Fire Resilience Project](#), a 211-acre vegetation management and prescribed fire preparation effort in Santa Cruz County. This project aims to prepare the area, which spans land owned by California State Parks, CAL FIRE, and the private company Redwood Empire, for prescribed fire. Much of the project area has not experienced fire, prescribed or otherwise, for over 100 years.

The steps taken to prepare the project area for beneficial fire will also reduce wildfire risk in the interim, with the added benefit of making the Truck Trail a possible strategic fuel break. The project is a collaborative effort between CAL FIRE, the RCD of Santa Cruz County, and California State Parks, with funding from the California Climate Investments Fund and permitting through a CalVTP Project Specific Analysis conducted by CAL FIRE.¹⁶

¹⁶ Forest Health and Prescribed Fire Preparations Underway Along Buzzard Lagoon and Aptos Creek Fire Road. 24 August 2024. RCD of Santa Cruz County. from <https://www.rcdsantacruz.org/item/241>



**SOUTHERN CALIFORNIA
REGIONAL WILDFIRE
& LANDSCAPE RESILIENCE**





MOBILIZING ACTION IN SOUTHERN CALIFORNIA

Southern California Organizational Landscape

The Southern California region is a complex jurisdictional landscape, comprising six counties, over 60 cities, and four national forests that cover more than 2 million acres. Six local resource management entities are Regional Forest and Fire Capacity (RFFC) grantees for the region: the [Santa Monica Mountains Conservancy](#), the [Inland Empire Resource Conservation District](#) (RCD), the [RCD of Greater San Diego County](#), the [Irvine Ranch Conservancy](#), the [Inland Empire Community Foundation](#), and the [San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy](#). All six organizations agreed to work collaboratively as part of the Southern California Wildfire Resilience Partnership, which received a \$10 million investment from CAL FIRE to align efforts, secure funds for wildfire resilience projects and programs, implement landscape-scale projects, and invest in capacity building. Additionally, these entities and the regional national forests are coordinating closely and sharing resources.

The Southern California Ignition Reduction Program (SCIRP) is a chartered, collaborative approach to preventing wildfires across Southern California. Active SCIRP committees are pursuing partnerships to finance long-term wildfire risk reduction along Southern California's roadways. SCIRP's executive leadership includes the USDA Forest Service, Caltrans, CAL FIRE, the National Forest Foundation, Blue Forest, Conservation Investment Management, and the World Resources Institute. SCIRP is pursuing work along six focus areas: conservation finance, vegetation management methods, people and partnership, communications and learning, and data analytics and technology.

Southern California Regional Priorities and In-Progress Activities

Each of the six RFFC grantees is producing publicly available regional priority plans (RPP) that identify and prioritize projects to improve forestry, fire protection, and forested watersheds in their jurisdictions ¹⁷.

- The Inland Empire RCD has released a [San Bernardino Mountains RPP](#)
- The Inland Empire Community Foundation has released a [plan](#) for multi-benefit projects in Riverside and San Bernardino Counties
- The Santa Monica Mountains Conservancy released a [RPP](#) in 2023, which summarizes initiated projects and includes a Priority Project List
- The RCD of Greater San Diego County released the first iteration of a [RPP](#) in 2023 to continue driving regional collaboration, prioritization and project implementation

¹⁷ Legislative Analyst's Office "An Initial Review of the Regional Forest and Fire Capacity Program" 2021 <https://lao.ca.gov/Publications/Report/4482>



- The Irvine Ranch Conservancy is conducting a large data collection and compilation effort to identify priority projects in its jurisdiction. An initial set of priority projects has been identified, and web tools for exploring and using their RPP are in development
- The San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy is currently developing a [RPP](#).

Montane forest conservation in the region is guided by the 2024 [Climate Adapted Conservation Strategy for Southern California Montane Forests](#), a multi-jurisdictional collaboration of the U.S. Geological Survey, the USDA Forest Service, San Diego State University, and the Climate Science Alliance. Since its publication, lead authors have completed prioritization workshops for each national forest and implementation of prioritized projects has begun. Next steps will focus on reforestation planning.

Southern California counties are also engaged in wildfire resilience and community protection efforts; the San Diego Wildfire County Coordinator, housed within the RCD of Greater San Diego County and supported by a California Fire Safe Council Wildfire County Coordinator Program grant award, helped develop three new fire safe councils, filling critical gaps in community-scale wildfire resilience, both in the built environment and fire-prone urban canyons. The Southern California Fireshed Risk Reduction Strategy is a multi-agency initiative aimed at mitigating wildfire risks across a 4-million-acre region through ignition reduction, strategic fuel break networks, montane forest conservation, and community preparedness.

Regional Significance

Protecting the diversity and vibrancy of Southern California from catastrophic wildfire

A safe and healthy future for California requires successfully managing wildfire and landscape resilience challenges in its southern region, as nearly 2 in 3 Californians call this area home. From the chaparral and coastal sage scrub landscapes that are biological hotspots and have cultural significance for Indigenous people, to the montane watersheds that provide 40% of the water required for agriculture, industry, and the daily needs of 25 million residents in the region, protecting communities and restoring Southern California's landscapes in a changing climate is foundational to the state's continued prosperity.¹⁸

¹⁸ USDA (2020). Forest to faucets 2.0. Connecting forests, water, and communities. USDA Forest Service, Washington, D.C.



Southern California Historical Fire Regimes

Southern California's diverse fire-adapted landscapes include shrublands, oak woodlands, and high-elevation conifer forests. Southern California's shrublands are adapted to infrequent but intense fires. Historically, high-severity fires would burn through shrublands every 30 to 100 years. Oak woodlands, yellow pine, and mixed conifer forests—the region's dominant montane forest type—are adapted to withstand lower-severity fires that occur with higher frequency (fires would burn through every 15 years or less, in some cases).¹⁹ Across Southern California's forests and shrublands, the long-term exclusion of fire from both natural sources and burning by Indigenous people has significantly altered vegetation patterns and fire regimes.² The region's fire regimes and vegetation patterns have been further altered by drought, climate change, the spread of invasive plants and insects (e.g., Goldspotted Oak Borer beetle), and land use changes that have increased landscape exposure to unwanted human-caused wildfire ignitions.

Regional Current Conditions and Primary Threats

A Year-Round Fire Season Increasingly Threatens the 25 Million Residents of Southern California

In recent decades, the fire season in Southern California has become virtually year-round. Dangerous fire conditions can happen anytime, but the most catastrophic fires generally occur in the fall and early winter. Strong, dry, and hot Santa Ana winds can rapidly turn single ignitions into destructive, massive, fast-moving wildfires. Humans are almost always the sources of ignition during Santa Ana wind events, whether in the form of campfires, arson or powerline failures.²⁰ Five of the ten most destructive fires in California history occurred in Southern California, all during Santa Ana wind conditions, including the Eaton and Palisades fires in January 2025.²¹ The risk to people does not end after the fire is out; natural hazards, including post-fire debris flows, can further threaten Southern California communities, such as the debris flows that killed 23 people in the aftermath of the 2017 Thomas Fire.²² The wildfire threat in Southern California is an integral aspect of daily life, requiring proactive planning rather than reactive response.

¹⁹ Hennessy, S., Jennings, M., Molinari, N., Magee, C., Pairis, A., & Safford, H. (2024). Climate-Adapted Conservation Strategy for Southern California Montane Forests. Zenodo. <https://doi.org/10.5281/ZENODO.13129913>

²⁰ J. E. Keeley, J. Guzman-Morales, A. Gershunov, A. D. Syphard, D. Cayan, D. W. Pierce, M. Flannigan, T. J. Brown, Ignitions explain more than temperature or precipitation in driving Santa Ana wind fires. *Sci. Adv.* 7, eabh2262 (2021).

²¹ CAL FIRE. (2025). Redbooks [Dataset]. <https://www.fire.ca.gov/our-impact/statistics>

²² J.W. Kean, D.M. Staley, J.T. Lancaster, F.K. Rengers, B.J. Swanson, J.A. Coe, J.L. Hernandez, A.J. Sigman, K.E. Allstadt, D.N. Lindsay; Inundation, flow dynamics, and damage in the 9 January



Altered Fire Regimes Threaten Southern California's Shrublands, Woodlands, and Forests

Shrublands in Southern California are presently experiencing intense fires with a frequency so high (approximately every 7 – 10 years) that native vegetation cannot sufficiently regenerate between fires, resulting in woody perennial shrubs being gradually replaced by ignitable non-native annual grasses. These vegetation changes increase fire frequency in wildlands and diminish their carbon storage capacity, biodiversity, and watershed functions. The fire regime in Southern California's oak woodlands and montane conifer forests has shifted from frequent, low-severity fire to infrequent, high-severity fire, with related increases in fire size and harm to the forests' natural regeneration. Oak woodlands in Southern California are being lost to both high-severity fire and infestation by the gold spotted oak borer beetle, which attacks otherwise healthy mature trees. High severity fires are also driving substantial losses of montane forest cover in Southern California, along with the associated services these forests provide, like snowpack retention, carbon storage, biodiversity, and recreational opportunities.

Science-Based Keys to Southern California Landscape Resilience

Conserve Montane Forests

Without active management, the montane forests of Southern California are likely to disappear. To withstand the compounding stress from climate change, insects, and pathogens, forest density must be reduced. Accomplishing this may include thinning the understory of these forests, and the return of beneficial fire¹⁹ in the form of cultural or prescribed burning in strategic locations. After a wildfire burns, reforestation can help reduce the likelihood of reburns, but action must be timely and site selection must carefully consider the likelihood of success.

Reduce the Frequency and Spread of Wildfires in Shrublands

Wildfires in shrublands are predominantly driven by wind, rather than fuel.²³ To reduce the threat of wildfire and preserve woody shrubland cover and the ecosystem services shrublands provide, the number of ignitions from human activities and infrastructure must be reduced, especially during Santa Ana wind events. The ability of fire to quickly spread in shrublands and grasslands must also be reduced. In the absence of extreme wind, strategically located and frequently maintained fuel breaks can help control the

2018 Montecito debris-flow event, California, USA: Opportunities and challenges for post-wildfire risk assessment. *Geosphere* 2019;; 15 (4): 1140–1163. doi: <https://doi.org/10.1130/GES02048.1>

²³ J.E. Keeley and A.D. Syphard. Twenty-first century California, USA, wildfires: fuel-dominated vs. wind-dominated fires. *Fire Ecol* 15, 24 (2019). <https://doi.org/10.1186/s42408-019-0041-0>



spread of fire. Because many Southern Californians live near shrublands, measures to reduce the incidence and spread of fire in these landscapes can offer substantial community protection benefits in addition to ecological ones. Residents can proactively contribute to their community's safety and the integrity of the ecosystems surrounding them by participating in activities like home hardening and creating defensible space.

Regional Success Stories

Ignition Reduction in Southern California

The SCIRP is a public-private partnership focused on reducing the occurrence of human-caused ignitions. Its membership includes federal and state agencies, California Native American tribes, academic partners, and NGOs. The program focuses on planning, funding, and implementing cross-jurisdictional projects that treat vegetation or install ignition-resistant materials along roadways and increase public awareness of and support for avoiding ignitions.

Fuel Breaks in Southern California

The State of California and its partners have completed more than 500 targeted wildfire resilience projects in the last four years. For example, the USDA Forest Service developed fuel breaks that enabled firefighters to protect the communities of Lake Elsinore from the 2024 Airport Fire and Angelus Oaks from the 2024 Line Fire. The Bureau of Land Management is utilizing cross-boundary strategic fuel breaks to protect vulnerable communities from wildfires. This includes fuel breaks that helped firefighters contain the 2024 Grove 2 Fire in San Diego County.²⁴

Workforce Expansion in Southern California

The [Forestry and Fire Recruitment Program](#) (FFRP) is a nonprofit organization operating training programs in Southern California that provide career support to formerly incarcerated firefighters seeking careers in forestry and wildland firefighting. FFRP works to recruit and train wildfire personnel from non-traditional and underrepresented communities. In recent years, FFRP has collaborated with both CAL FIRE and Los Angeles County to help develop firefighting and forestry workforces.

²⁴ Mogen, J. (2025, January 7). How fuel breaks helped wildfire agencies contain the Grove 2 Fire in eastern San Diego County. Bureau of Land Management. <https://www.blm.gov/blog/2025-01-07/how-fuel-breaks-helped-wildfire-agencies-contain-grove-2-fire-eastern-san-diego>



Reforestation in Southern California

Through a collaboration between the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, TreePeople, and national forests in Southern California, an experimental reforestation effort of Bigcone Douglas-fir is being implemented across 12 sites in the Angeles National Forest. An additional 12 sites will be implemented in 2026 through a partnership with the San Bernardino National Forest and funding from the Inland Empire RCD. This effort aims to further knowledge of the regeneration of Bigcone Douglas-fir, one of the most fire-resistant and fire-adapted conifers in the world.