

Regional Forest and Fire Capacity

As California's wildfires increase in frequency, size, intensity, and severity, there is an impulse to seek a silver bullet to solve our "fire problem." The concept of a centralized solution, however, is as antiquated as the central fire management system so interwoven with the problems we face today. The Regional Forest and Fire Capacity (RFFC) program offers a different approach: more akin to silver threads, that if strengthened through regionally responsive, **nimble capacity investments**, and if woven together through **strategic prioritization and planning**, are positioned to move the needle from reactionary disaster management to landscapes and communities more resilient to the next inevitable wildfire.

The RFFC program takes a noncompetitive blockgrant approach to funding regional entities (i.e., those working at a county-wide or larger scale) to decentralize fire-resilience strategies, such that regions (rather than the State) discern how to best invest in fire resilience strategic planning, capacity building, and project readiness. A key goal of the program is a strategic pipeline of "shovel-ready" fire resilience projects that ideally dovetail with state implementation programs and dollars. There are currently eight block grant recipients, six of which are working in this regional capacity and two of which are working at the statewide level. Their progress to date is outlined in the following report.

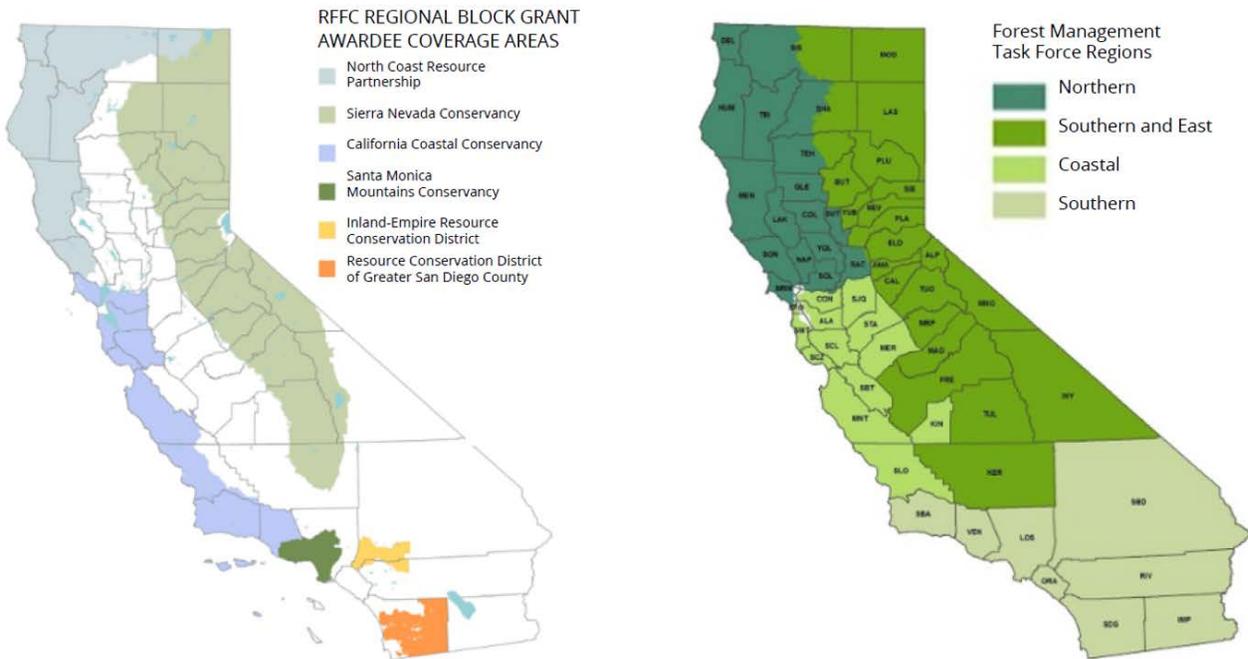
Watershed Research and Training Center

The Watershed Research and Training Center (the Watershed Center), in its first phase of the Regional Forest and Fire Capacity program, identified 227 community-based entities that are advancing forest and fire restoration at the landscape scale.

The Watershed Center team and a third party researcher analyzed what capacities these practitioners perceived that they most needed to increase their efficacy in stewarding fire-resilient landscapes. The Watershed Center concluded that both needs and assets among community-based practitioners are great; capacity is cyclic; and consistent, flexible investments are critical to enabling these groups to help their communities live in more fire-resilient landscapes. Check out the [Executive Summary](#) of this research for more information.



Regional Planning



The current regionally-focused RFFC block grant recipients are shown on the map on the left. The Forest Management Task Force Regions are shown on the right.

The RFFC program has a significant emphasis on regional planning. By the end of this first iteration of the program, each regionally-focused grantee will have produced a Forest and Fire Regional Prioritization Plan. The RFFC framework allows for regional interpretation of what should be in these strategic documents, and how they should be structured. In fact, some groups may not produce documents at all, and instead are developing linked databases, maps, and online tools that serve as "living" fire resilience strategies that can be adapted actively as biophysical, social, and funding conditions change. The Watershed Center recognized an important peer-learning opportunity among the RFFC groups themselves regarding regional fire planning, especially given that there is another statewide fire prioritization process occurring concurrently through the Forest Management Task Force.

The Watershed Center recently explored how the regionally-focused RFFC grantees are advancing their planning efforts to allow for cross-pollination, and to reduce duplication. The paper, [Review and Synthesis of Regional Priority Planning in California](#), has already led to meaningful adaptation. For example, through the paper, one RFFC subgrantee, the Golden Gates Parks Conservancy, learned of the North Coast Resource Partnership's process for financially compensating Tribal advisors and has created a similar approach in their sub-region.

Through RFFC, the Watershed Center is serving in a pivotal capacity-building role, facilitating active exchange of the best ideas and practices in landscape fire resilience across the state's regions and communities. Together, we're building a more fire-resilient California.

Direct Investments

PROVIDING TECHNICAL EXPERTISE: FROM DRIPTORCH TO LEGAL

The Watershed Center is also deploying a team of technical experts to work with local groups across the state to build specific, critical capacities, largely based on what was learned in the aforementioned Capacity and Needs Assessment and a subsequent rapid COVID-19 capacities-at-risk survey.

For example, the Watershed Center is using RFFC funds to launch and steward seven community-based burn cooperatives, also known as **Prescribed Burn Associations**, throughout the state. Recognizing the power of connecting peers with peers, our team has also created an online networking space, currently serving 68 prescribed fire leaders. Our in-house **biomass specialist** has also provided resources to practitioners through RFFC. In support of organization-level capacity building, the Watershed Center also contracted with a law firm to provide **labor-law compliance**, critical to organizations building their fire workforces.



Above: Through RFFC, the Watershed Center has heavily invested in supporting community cooperative burning efforts throughout the state. This includes, but is not limited to, supporting existing and emerging Prescribed Burn Associations with technical assistance. Photo by Lenya Quinn-Davidson, University of California Cooperative Extension.

FOSTERING LEADERSHIP IN UNREPRESENTED AREAS

Part of the brilliance of the RFFC program is that it leverages robust, trusted, regionally-focused entities (e.g., state conservancies, etc.) and distributes non-competitive block grants for them to then invest as appropriate within their region. However, not all regions are served by state conservancies or have strong regional natural resource organizations. As a result, 18 counties currently lack RFFC coverage, some of which face profound forest and fire risks, though not all do. The Watershed Center is fostering relationships with community based entities in many of those counties and looking for sound investment and capacity-building opportunities among them. **An early investment of ~\$30,000 helped one unrepresented county, Lake County, secure \$3 million for landscape-level fire resilience work.** Enabling an organization to compensate technical experts for writing grant applications, while also shoring up their internal systems and partnerships is such a simple, yet profound, example of capacity investments paying tremendous dividends.

SUPPORTING INTERTRIBAL INDIGENOUS STEWARDSHIP

Recognizing the importance of creating new pathways for state investments to go directly to Tribes, the Watershed Center **leveraged \$60,000 of RFFC funding to secure about \$159,000 of private philanthropic support for an Intertribal Indigenous Stewardship Project.** The project is now being cultivated by two Indigenous project managers, and an Indigenous Design Committee.

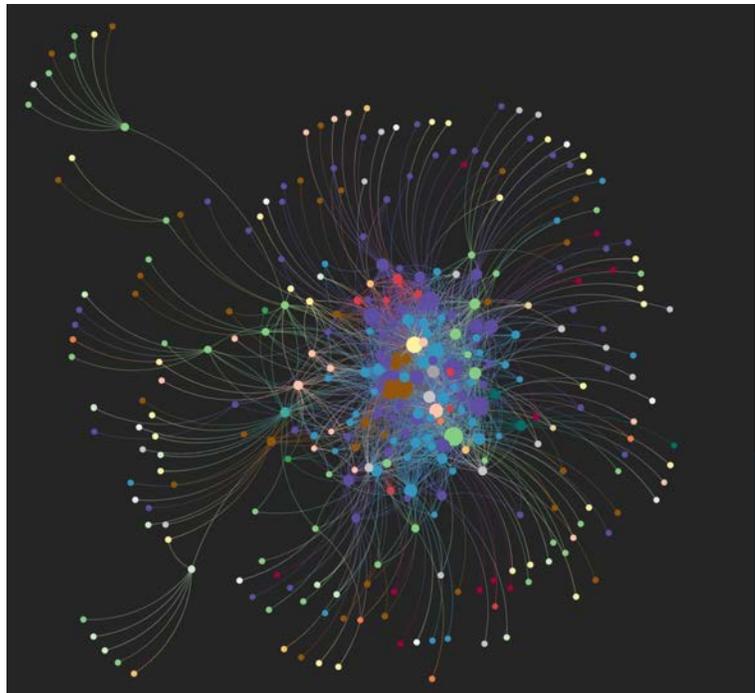
California Fire Adaptation Network

Each community-based entity working on landscape resilience in their local place is also an asset to entities elsewhere. This is because each practitioner has the potential to pass on their best practices, innovations, and learning to people working on fire resilience elsewhere in the state. To make this potential influence a reality, **we need to nurture the connections among practitioners.**

In addition to offering in-house and contracted technical assistance and capacity-building to practitioners, the Watershed Center has launched a statewide network focused on fire adaptation. This network will be a powerful way to **ensure that isolation doesn't limit the ideas and projects practitioners aspire to achieve.** It is also already facilitating iterative learning and improvement as we face ongoing forest and fire management challenges.

As part of this network approach, the Watershed Center has created an online, private, peer-networking workspace, where practitioners can pose and answer questions, share updates, and share resources. Almost 200 practitioners and agency partners currently participate, and despite launching amidst the largest wildfire year on record, participation and engagement has already exceeded expectations. **Practitioners are eager to connect with one another, and this centralized yet democratized network approach is incubating powerful connections and relationships.**

Right: The 2019 Capacity and Needs Assessment revealed that there is a strong interest in learning from (and mentoring) peers, so the Watershed Center sought to understand baseline connections to strategize peer networking pathways. This image is from a subsequent 2020 Social Network Analysis conducted by the Watershed Center. Each dot represents a practitioner. The colors vary based on entity type, and the lines represent connections based on level of influence.



California State Coastal Conservancy



The California State Coastal Conservancy (Coastal Conservancy) is using their RFFC grant to leverage existing relationships with Resource Conservation Districts (RCDs), funding seven RCDs that share resources across jurisdictional boundaries. RCD involvement is a logical outcome of the Conservancy's historic involvement with these organizations, and because many RCDs already have experience with forest health and fire mitigation projects. Further, they have broad geographic jurisdiction covering all or a large portion of a county and can move rapidly to hire staff and issue contracts. Finally, they are accustomed to forming partnerships with government, private, and nonprofit organizations, and they often earn the trust of private property owners.

The Coastal Conservancy has also granted funds to two organizations managing large tracts of forest and open space land: the Golden Gate National Parks Conservancy and the East Bay Regional Park District. These two organizations already have regional priority plans in place and are in the process of implementing those plans. In this case, RFFC funding helped expand an existing effort and helped build on the foundational planning work that was already underway. Lastly, the Coastal Conservancy is supporting the Amah Mutsun Land Trust to bring back cultural fire and forest stewardship to the Amah Mutsun's ancestral homelands.

ONE TAM

The Golden Gate National Parks Conservancy is working with land management agencies under an existing partnership called the Mount Tamalpais Lands Collaborative, commonly referred to as "One Tam." The participating agencies each manage land on and around Mount Tamalpais in Marin County. The goals of the One Tam work include defining "resilience" for forests, developing conceptual models of ecosystem services and forest health, as well as addressing threats. The project also includes developing a tree mortality map and canopy gap analysis as a subset of the Marin Vegetation Map, and Best Management Practices for partner agencies that key off existing compliance documents, including the CAL FIRE Vegetation Treatment Program Programmatic Environmental Impact Report. One Tam is also funding demonstration projects on approximately 25 acres of conifer forest, oak woodland, and chaparral.

Below: Forest health flyer created by Marin Municipal Water District and One Tam.



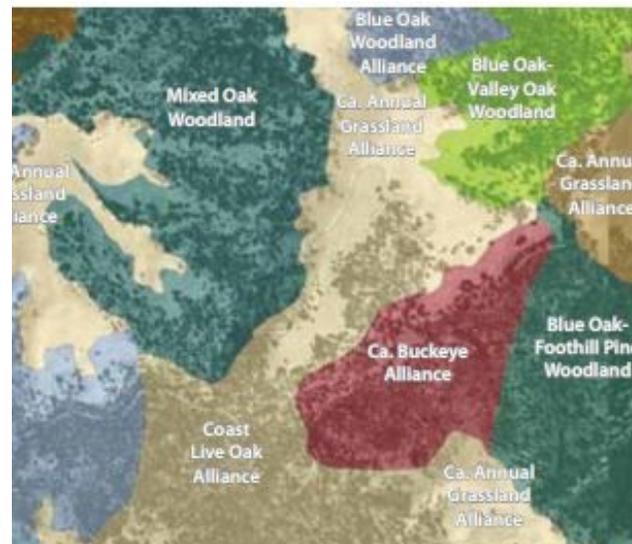
EAST BAY RCD PARTNERSHIP

The Contra Costa RCD is sharing resources with the RCD of Alameda County and the Diablo Fire Safe Council. After COVID-19-related delays, the Contra Costa RCD was able to hire a Wildfire Conservation Coordinator to draft a two-county Regional Priority Plan. **This is an example of how RFFC can build local capacity.** The two RCDs are working with the Diablo Fire Safe Council to conduct stakeholder coordination, education and outreach, planning, and permitting of demonstration projects. In addition to working in the East Bay Hills wildland-urban interface (see East Bay Regional Parks District section below), the RCDs and Diablo Fire Safe Council will be working in the areas surrounding Mount Diablo (i.e., the eastern reaches of the Bay Area).

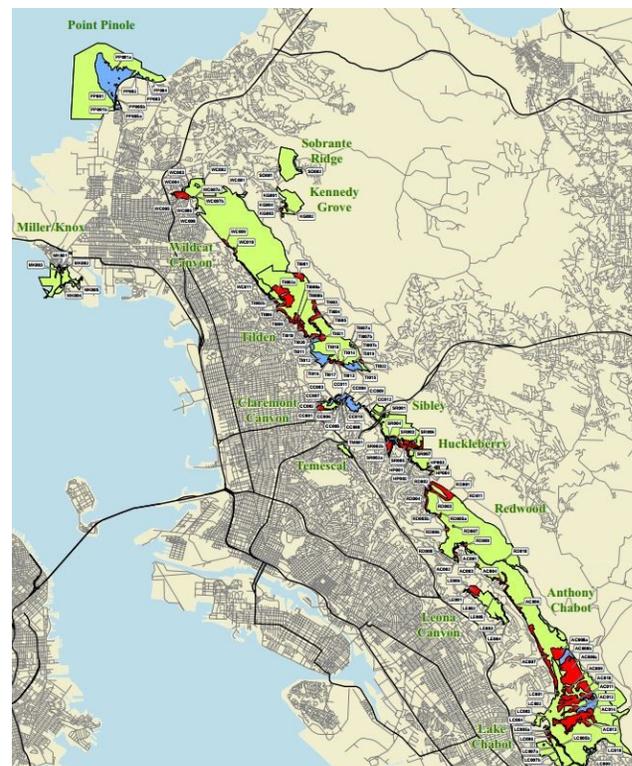
EAST BAY REGIONAL PARK DISTRICT

Through RFFC, the East Bay Regional Park District is being funded to implement projects for fire hazard reduction and forest health efforts in the East Bay Hills and is working with the Diablo Fire Safe Council on a program of wildfire awareness, education, and demonstration in the communities that border its lands. The East Bay Regional Park District is implementing demonstration projects at dozens of locations ("Recommended Treatment Areas"), across approximately 400 acres in seven parks, all within the wildland-urban interface of the East Bay Hills. The work, which relies heavily on shaded fuel breaks and forest thinning, is being conducted in winter and spring of 2021.

Below: Mount Diablo Vegetation Map produced by the San Francisco Estuary Institute.



Below: Map of recommended treatment areas in the 2010 Wildfire Hazard Reduction and Resource Management Plan from the East Bay Regional Park District.



SANTA CRUZ MOUNTAINS

The Resource Conservation Districts of San Mateo and Santa Cruz Counties are part of a four-county RCD partnership in which these two RCDs share resources across county lines. In 2020, each office hired a full-time specialist to work on RFFC-funded projects and both offices reshaped how they approached their work in the face of COVID-19 limits, in large part because many of the tasks originally envisioned required in-person activities. The restrictions forced the RCDs to be especially creative with outreach. For example, instead of in-person tours to demonstrate defensible space and promote chipping events, they conducted a virtual format tour using Google Earth.

After the CZU Lightning Complex in August of 2020, the RCDs shifted focus to fire recovery and developed in-person (COVID-19-safe) outreach programs to the agricultural community and technical assistance on issues such as hazard tree removal, run-off, erosion, and debris flow. Remedies included culvert



Above: San Mateo County chipper service. Photo by the San Mateo Resource Conservation District.

replacement, bridge modifications, and fuel breaks. The Santa Cruz RCD held online workshops on post-fire recovery and teamed up with the county's disaster response team to visit over 350 private properties impacted by the CZU Complex. Two planned fuel reduction projects were abandoned after the fire swept through those sites. Some demonstration projects were not impacted by the 2020 fires and will proceed in spring of 2021.

An example of a project that was implemented after the CZU Complex is the Cliffwood Estates. It was identified by CAL FIRE as high risk due to a high density of eucalyptus growing between a ranch and a mobile home park. **Projects like these protect vulnerable communities.**



Above: Fuels before and after a wildfire mitigation project. Photo by the Resource Conservation District of Santa Cruz County.



Above: Natalie Piñeida, a member of the Amah Mutsun Land Trust, torches along the coastal trail of Cascade Field in Año Nuevo State Park during a prescribed burn in 2020. Photo by Will Duncan, Santa Cruz Sentinel.

AMAH MUTSUN LAND TRUST

The Amah Mutsun Land Trust (AMLT) received a RFFC grant in the spring of 2020 to support its indigenous fire program, which covers the ancestral homeland of the Amah Mutsun Native American Tribe – stretching from southern San Mateo County to Monterey Bay. AMLT received RFFC funding to support cultural burning – a practice that promotes ecological and cultural resources, and is informed by Traditional Ecological Knowledge. AMLT’s RFFC grant also supports a coordinator to plan and manage projects for members who are trained in prescribed fire procedures, such as the Prescribed Fire Training Exchanges (TREX) program.

MONTEREY AND SAN LUIS OBISPO COUNTIES

Through RFFC, the RCD of Monterey County has partnered with the Upper Salinas-Las Tablas RCD to put together priority plans, prepare permit applications, and carry out demonstration projects of treatment methods. Both RCDs are also conducting outreach and education with

private landowners. The 2020 fires in the Santa Lucia Range forced RCD staff to move from planning new projects to assisting with post-fire recovery. In the Carmel Valley, the RCD of Monterey County works closely with land managers from the Santa Lucia Conservancy (manager of the 10,000-acre Santa Lucia Preserve), the Big Sur Land Trust, State Parks, and the Los Padres National Forest. Several prescribed burn projects are planned for 2021.

SANTA BARBARA COUNTY

The Cachuma Resource Conservation District is developing a Regional Priority Plan for both the rural and wildland-urban interface portions of the county. This work will build on the existing Santa Barbara Conservation Blueprint (<http://sbcblueprint.net/>) and will identify priority projects that address the threat of wildfires and improve communication and network building to help set community priorities. Consultants are developing tools to coordinate and support wildfire resilience actions including a sophisticated decision-support mapping tool to identify gaps, needs, and priorities.

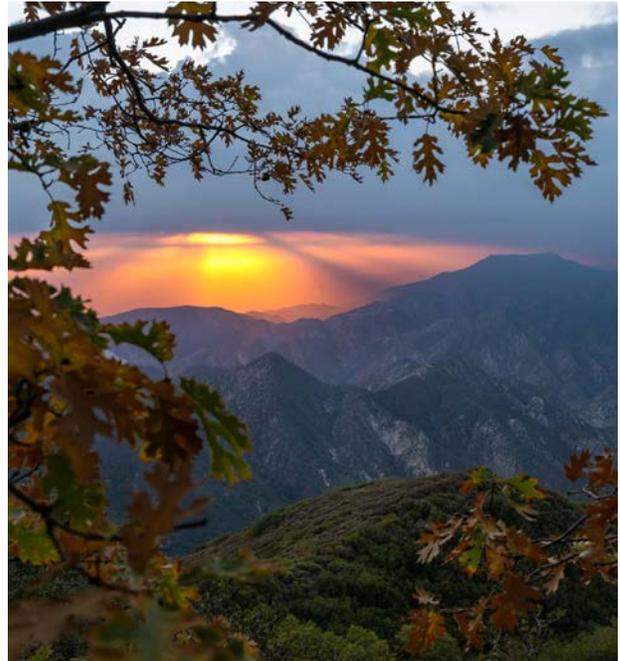
Inland Empire Resource Conservation District



The Inland Empire Resource Conservation District (IERCD) has been working through RFFC to build capacity in the San Bernardino Mountains in Southern California. In 2020, this region experienced two devastating fires: The El Dorado and Apple Fires. While these fires are needless reminders of the demand to increase the pace and scale of fuels reduction and forestry work, the urgency continues to unite local agencies and communities. IERCD's overarching goal through RFFC is to address capacity challenges for this region; including preparing for future funding opportunities, developing projects across various land ownership (private/public barriers), building staff capacity within the organization to better address fire and forestry needs, and identifying and implementing demonstration projects to increase pace and scale. The following sections describe progress to date in building regional capacity through partnerships and projects in the San Bernardino Mountains.

SETTING UP PARTNERSHIPS FOR REGIONAL SUCCESS

The Forest Service manages approximately 80 percent of the lands in the San Bernardino Mountains. The remaining 20 percent consists of small acreage private lands, several larger camps, and land owned by other government agencies and nonprofits. In an effort to **increase the pace and scale of landscape level projects** in the San Bernardino Mountains, IERCD has worked to develop a strong partnership with the Forest Service in order to support implementation of projects on Forest Service-managed lands. IERCD entered into a Participating Agreement with the Forest Service in September 2020, allowing the two agencies to share employees, equipment, vehicles, and otherwise partner together to



Above: San Bernardino Mountains. Photo by Inland Empire Resource Conservation District.

accomplish project goals through RFFC. This is an exciting example of state and federal resources aligning, more of which will be made possible as the Forest Service-California Shared Stewardship Agreement unfolds. Through this agreement, IERCD hired three seasonal staff to support the Forest Service in completing NEPA requirements for a 13,000-acre landscape restoration project, including botany staff and a Cultural Resources Specialist. This partnership and agreement allows IERCD to respond quickly to Forest Service needs and apply its resources on national forests. Through RFFC, IERCD will also be working with the Forest Service to implement a 700-acre project from start to finish. By IERCD staff learning the Forest Service planning process, they will be able to advance projects in accordance with federal requirements and processes.

Community Wildfire Prevention



Above: Four community meetings were held in 2019 on preparing for wildfire before, during, and after a fire event. Photo by Inland Empire Resource Conservation District.

BRIDGING THE GAP BETWEEN AGENCIES AND COMMUNITIES

One of the region's key partners for the RFFC program is the Inland Empire Fire Safe Alliance (IEFSA). The IEFSA is an informal group of fire safe councils, agency representatives, Tribes, utility agencies, nonprofits, and other partners who meet regularly to discuss projects occurring in the San Bernardino mountains. What makes this partnership unique is the collaboration among various stakeholders to discuss priorities, challenges, and opportunities for improving the fire resilience of the local mountains and communities. This collaborative blends the lines between agencies and communities, allowing for open conversation and discussion of issues, and a better understanding community members of

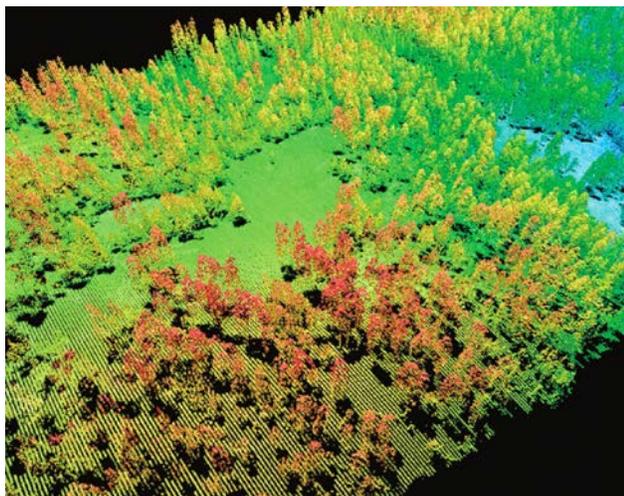
of the roles and responsibilities of each agency. Through RFFC, IERCD has joined this collaborative and is assisting IEFSA with formalizing into a 501(c)(3) to allow for future grant acquisition under this regional collaborative.

COMMUNITY WILDFIRE PROTECTION PLANS

One of the goals of IERCD's RFFC program is to increase capacity within communities living in the mountains and wildland-urban interface to address wildfire risk and engage in fire planning in their immediate communities. Through a subgrant with the Mountain Rim Fire Safe Council, IERCD is funding the development of eight Community Wildfire Protection Plans (CWPPs). Several of these plans will be updates for communities that have engaged previously in a CWPP process, for other communities this will be their first CWPP process. Mountain Rim Fire Safe Council will be working with a consulting firm who has previously supported CWPP planning in the San Bernardino Mountains. These plans will provide a foundation for each community's wildfire preparedness planning and will include a suite of home hardening, forest health, and hazardous fuels reduction projects to help align community needs with agency efforts. These individual plans will be incorporated into the Regional Priority Plan, along with additional projects identified by agency and nonprofit partners.

Regional Planning Using LiDAR Technology

A critical element in planning regional projects is developing a forest inventory to assess the baseline conditions. Traditionally, this requires significant field surveys to determine forest structure and species composition, but LiDAR allows for the determination of forest structure using three-dimensional forest-structure data. Through RFFC funding, and in partnership with the San Bernardino Valley Municipal Water District (SBVMWD), IERCD acquired LiDAR and aerial imagery for the entire San Bernardino Mountain range, an area of 983 square miles. The original acquisition area was significantly smaller, but with financial contribution from SBVMWD, IERCD was able to **leverage \$100,000 in funding support** to increase the acquisition area to cover the entire San Bernardino Mountain range. Through RFFC, IERCD is also contracting with the Forest Service Remote Sensing Lab to develop the forest products for project analysis including an EcObject Vegetation Map, Canopy Height Model, and a Tree Stem Map.



Above: Example product created from LiDAR imagery in the Sierra National Forest, enabling the user to assess forest stand composition and density. Photo by California Agriculture 69(1): 14-20.

HOW DOES THIS DATA COLLECTION SUPPORT THE REGIONAL PLAN?

The IERCD is in the process of developing a Regional Priority Plan for the San Bernardino Mountains. The data from the LiDAR post-processing will enable IERCD and partners to assess and plan fuels reduction projects in the acquisition area with increased efficiency and less field time. In addition to LiDAR's application for assessing forest structure, the information can also be used for determining wildlife habitat, assessing post-fire landscapes, determining fire hazard, identifying larger cultural resources, determining biomass to estimate carbon storage, and other watershed assessments. These applications can advance the NEPA/CEQA process for projects and increase the rate for planning fuels projects.



Post-Fire Support

Following the El Dorado Fire in September of 2020, the IERCD had a unique opportunity to implement a project in partnership with San Bernardino County Flood Control and San Bernardino County Fire Protection District, as well as 10 private landowners to improve the flood channel following the devastating fire and in anticipation of winter rain events. While one key element of the RFFC funding is planning and implementing fire resilience projects, another objective of the funding is **building collaboration between agencies to implement public/private projects that improve forest health and fire resilience across varying land ownership**. Forming local partnerships and local response to address immediate needs better prepares this region for the challenges it will continue to face as a result of climate change, population growth, and other factors.

The photos to the right highlight a demonstration project focused on clearing overgrown invasive vegetation, specifically Himalayan blackberry (*Rubus armeniacus*) and other weedy invasive species, in order to prepare a channel and the surrounding community for potential debris flows resulting from a wildfire. San Bernardino Flood Control District manages approximately 80 percent of the channel, but the remaining 20 percent is privately owned. IERCD worked with private landowners and San Bernardino County fire crews to clear the nonnative vegetation from the channel to better prepare the community for potential flooding and to reduce future fire risks associated with the excessive vegetation.



Above: Damage from the El Dorado Fire in Oak Glen, California – a community at risk of debris flows following high intensity wildfire. Photo by Inland Empire Resource Conservation District



Above: Overgrown invasive species choking the primary channel for potential debris flow. Photo by Inland Empire Resource Conservation District.



North Coast Resource Partnership

The North Coast Resource Partnership (NCRP) is actively collaborating with the California Natural Resources Agency and California Department of Conservation to achieve the state's ambitious objectives for fuel load reduction, healthy forests, climate action, vibrant communities, functional ecosystems, and vital economies. With RFFC funding, the NCRP is developing a data-driven Regional Priority Plan, identifying, prioritizing and preparing projects for implementation, providing regional technical assistance and capacity building, and coordinating the implementation of demonstration projects that model innovative strategies for increasing wildfire resilience in the North Coast region. Established in 2004, the NCRP is a long-term, successful collaboration among Northern California Tribes, counties, and diverse stakeholders. The NCRP region covers over 12 percent of the California landscape – including Tribal lands and the counties of Del Norte, Humboldt, Trinity, Siskiyou, Modoc, Mendocino and Sonoma. The North Coast is a source region for clean water, carbon sequestration, and biological diversity, and these benefits flow beyond the region to other parts of the state. Of the 4.2 million acres burned in California in 2020, 1.2 million acres were in the North Coast region. Over 17.2 million tonnes of greenhouse gasses were emitted from the region's fires, equivalent to over 3.7 million passenger cars being driven for one year.

The four years prior, 2015-2019, a total of 4.5 million acres were burned in California, with over one quarter of that being burned in the North Coast region. The RFFC block grant offers an opportunity for the NCRP to partner with the state of California to build on 17 years of successful regional planning and project implementation for healthy forests and communities.



Above: Aja Conrad, former Environmental Workforce Development and Internships Division Coordinator at Karuk Tribe. Photo by Jenny Staats, Klamath Salmon Media Collaborative.

COLLABORATION ACROSS BOUNDARIES AND EXPANDING PARTNERSHIPS

The NCRP works collaboratively across a large and diverse region to achieve positive outcomes for communities and watersheds. The NCRP is led by Tribal representatives and locally elected county officials from the seven county North Coast region. This local leadership approach ensures transparency, inclusion and stakeholder input at the regional scale. Key RFFC program partners include the Forest Service, CAL FIRE, the California Department of Conservation and the California Natural Resources Agency, as well as a myriad of private and public, local, regional, state and federal, and Tribal partners. The NCRP acts as a nexus between statewide and local planning efforts, ensuring the efficient use of state funds. Since 2004, the partnership has engaged in collaborative, integrated planning and project implementation, investing over \$87 million in hundreds of projects that benefit the Region's communities and watersheds.



Above: California Conservation Corps crews at North Coast Resource Partnership's Biochar Demonstration Project-Usal Forest. Photo by North Coast Resource Partnership.



Above: Javier Silva, Sherwood Band of Pomo Indians, North Coast Resource Partnership Consultant and past Technical Review Committee Member. Photo by North Coast Resource Partnership.

EQUITY, INCLUSION, AND PARTNER ENGAGEMENT

The NCRP has a long history of identifying and prioritizing strategies and projects that benefit economically disadvantaged or historically underrepresented communities. NCRP policies and investments ensure that partners in the region have the resources to participate in regional planning and can access funding opportunities. The NCRP provides technical support for grant writing, mapping, spatial analysis, engineering, CEQA/NEPA, natural resources evaluation, and local planning functions. The NCRP Tribal Engagement Coordinator ensures that Tribal perspectives, priorities and projects are included in all NCRP planning initiatives and project implementation. The NCRP regularly reaches out to all partners and stakeholders in the North Coast Region via our website, listserves, workshops, meetings, and conferences to ensure that partner and stakeholder input is reflected in all elements of the NCRP.

Effective Project Implementation & Return on Investment

The NCRP has identified, planned, evaluated, and supported the implementation of hundreds of projects over the last 17 years. They are currently in the process of implementing 13 RFFC demonstration projects with partners and providing technical assistance to project proponents to ensure project readiness. Demonstration projects are focused on biochar, wood utilization, Traditional Ecological Knowledge (TEK), inter-Tribal collaboration, forest restoration, workforce development, wildland firefighter certification and training, and tool development to calculate greenhouse gas benefits of forest stewardship. Lessons learned from these demonstration projects will be scaled up, replicated, and widely applied to increase the scope and pace of forest health and fuel load reduction efforts, thereby achieving effective on-the-ground outcomes.

More information on these projects can be found at the following web page: <https://northcoastresourcepartnership.org/news/>. The NCRP has identified **over 2,400 projects related to the RFFC program**, and is in the process of more fully evaluating these for potential future implementation. **Approximately 1,600 are in the planning phase, 150 are active, and 650 are completed and require monitoring.** These projects will be prioritized and prepared for implementation based on state and federal agency priorities, local stakeholder priorities, and a diversity of quantitative and qualitative criteria that support NCRP goals and objectives.

Moving forward, the NCRP will continue to identify projects on an ongoing basis, and projects will continue to be evaluated and selected via a formal review and ranking process that includes objective criteria and independent ranking by the NCRP Technical Peer Review Committee.

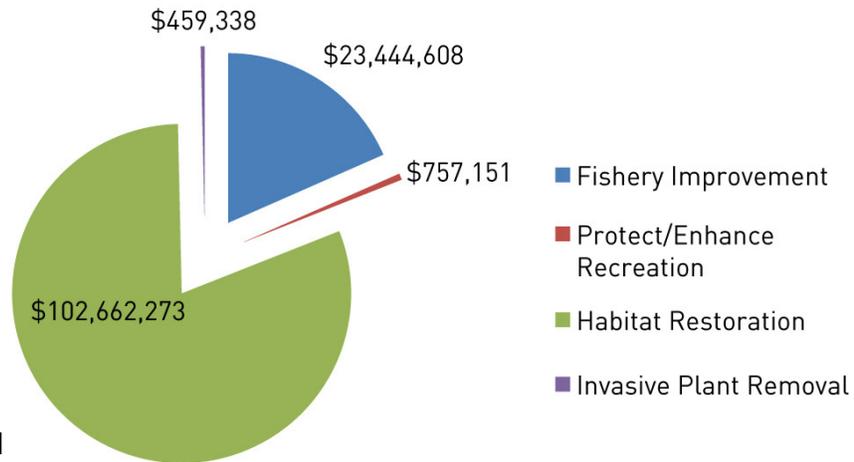
Below: Yurok Tribal Member, Yurok Fisheries Program, Restoration of lower Klamath River habitats. Photo by North Coast Resource Partnership



SCIENCE & DATA TO SUPPORT EFFECTIVE ON THE GROUND OUTCOMES

The NCRP – in collaboration with technical consultants, universities, state, federal and philanthropic partners – regularly develops science-based assessments and plans that fill data gaps in the region, and support evaluation of priority investments and performance monitoring of measurable outcomes and impacts. These assessments and plans are intentionally aligned with the relevant goals and objectives of state and federal partner agencies. The NCRP also places a strong emphasis on sharing data with partners and the community. The [NCRP Website Data Page](#) includes an interactive map, spatial data catalogs, and an ArcGIS online site for forest and fire related datasets, while the [NCRP Website Resources Page](#) includes reports focused on climate change, economic benefits, etc. In support of the RFFC Regional Priority Plan, the NCRP has developed a peer-reviewed prioritization framework that relies on spatial analysis and modeling as well as local expert knowledge. A Quantitative Wildfire Risk Assessment using the USDA Forest Service Interagency Fuel Treatment Decision Support System is being developed, as well as targeted GIS analyses related to fuel loading, forest resiliency, climate change, and community health and safety.

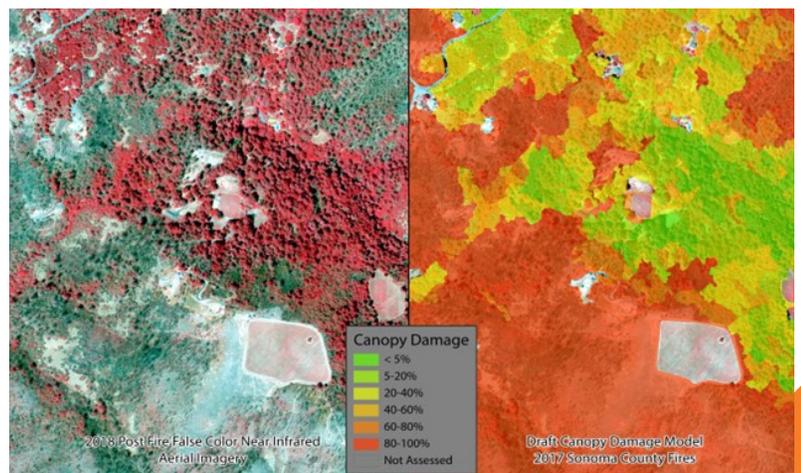
Right: Comparison of 2018 Post Fire Imagery and Draft Canopy Damage Model from 2017 fires in Sonoma County. Produced by Sonoma County Agricultural Preservation & Open Space District, NASA.



NCRP graph showing the monetary benefits of habitat improvement

MEASURING & REPORTING EFFECTIVENESS: ONGOING MONITORING AND ADAPTIVE MANAGEMENT

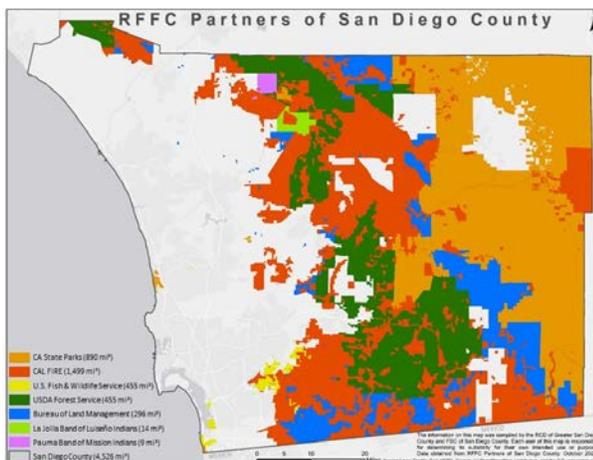
The NCRP documents the impact and benefits of its work and shares this information via quantitative and qualitative performance metrics related to forest and watershed health, climate change action, community health and safety, ecosystem services, and economic vitality. The NCRP regularly solicits input on its programs, initiatives, planning efforts, policies, and projects, and uses this input to refine its approaches to enhance the quality of its work.



Resource Conservation District of Greater San Diego County



Funding from RFFC has brought together the Resource Conservation District of Greater San Diego County (RCDGSD), USDA Forest Service, U.S. Fish & Wildlife Service, Bureau of Land Management, CAL FIRE, California State Parks, Pauma Band of Luiseño Indians, and La Jolla Band of Luiseño Indians to develop a Regional Priority Plan for San Diego County. This document is a listing of projects focused on priority areas that include landscape-scale restoration, prescribed fire, defensible space clearing around structures, chipping, roadside fuels reduction, and dead vegetation clearance. Throughout 2020, this RFFC collaborative held several key meetings in which **over 250 shovel-ready projects that need funding were identified and mapped**. One project idea RCDGSD's RFFC partners would like to foster is the development of an Indigenous forestry and fuels crew for Southern California.



Above: Map showing the jurisdictional boundaries of RFFC partners in colored polygons and the outline of San Diego County in black.

One key accomplishment under RFFC was the completion of the Community Wildfire Protection Plan (CWPP) for San Diego County. The CWPP is a living document aimed to identify and clarify priorities for the protection of life, property, and critical infrastructure from wildfire. To accomplish this, the County of San Diego, CAL FIRE, and RCDGSD collaborative wrote a draft CWPP and, after several revisions, it was signed by the CAL FIRE San Diego Unit Chief in September 2020.

OUTREACH DURING THE PANDEMIC

Maintaining a consistent exchange of information during the COVID-19 pandemic has been at the forefront of RCDGSD's priorities. Through outreach efforts, RCDGSD started a "Coffee Chat" where local Fire Safe Council (FSC) representatives join together via video conference to discuss fire safety programs, community education events, and to collaborate on future projects. The attendance of these meeting ranges from 14 to 20 members. RCDGSD recently completed a new CWPP template for individual FSCs to adopt, and developed three workshops for FSCs to either create a new CWPP or update their existing one. To further outreach to local communities, RCDGSD collaborated with local FSCs and San Diego Gas & Electric to successfully promote 12 drive-thru safety fairs, and several chipping and defensible space clearing events.

Demonstration Projects

SCALABLE MODELS THAT MEET THE DESIRED OUTCOMES OF THE RFFC PROGRAM AND BOTH REGIONAL AND STATEWIDE FOREST HEALTH AND FIRE RESILIENCE GOALS



Above: Photo showing mature coast live oak mortality caused by the goldspotted oak borer at the La Jolla Band of Luiseño Indians' campground. Summer 2020. Photo by Kevin Soland.

RCDGSD's first demonstration project began in fall 2020 at the La Jolla Band of Luiseño Indians' campground. RFFC is funding the removal and restoration of 25 acres of coast live oak trees killed by the gold-spotted oak borer (GSOB) beetle. Additionally, RFFC funding, combined with funding from California Climate Investments and the Bureau of Indian Affairs, is working to support the development of a natural resource, forestry, and fuels management program. This active forest management approach is essential for the fuel modification required before cultural burning can be safely returned to the landscape. Funding will also be utilized to salvage biomass in accordance with GSOB best management practices and support the coordination of research with U.C. Riverside on the potential for cultural burning to be used to control GSOB.

FOSTERING RESTORATION THROUGH COLLABORATION

In January 2021, RCDGSD began planning a second demonstration project at Cuyamaca Rancho State Park. In 2003, a highly destructive wildfire burned over 98 percent of the park, killing more than 95 percent of the conifer trees. Today, shrubs and herbs dominate the landscape, and without active management, the park is at risk of permanent site conversion to chaparral. In 2007, a 2,530-acre restoration project began and approximately 71 percent of the project is complete. RFFC funding will be used in conjunction with funding from other sources to further restoration efforts at Cuyamaca Rancho State Park. More specifically, RCDGSD plans to use the park as a training ground to build capacity among community members through real-time training, such as planting trees and clearing dead vegetation.



Above: Seedlings are planted throughout the burned area in Cuyamaca Rancho State Park and covered with protective mesh to increase their chances of survival. Photo by American Forests, americanforests.org.

Santa Monica Mountains Conservancy



REGIONAL PRIORITY PLANNING

The Santa Monica Mountains Conservancy (SMMC) and its partner agency, the Mountains Recreation and Conservation Authority (MRCA), are working collaboratively to develop the Regional Priority Plan (RPP) for the SMMC in an effort to promote restorative wildland management practices in Los Angeles and Ventura Counties. The SMMC's region is unique in that it includes the most populated county in California, Los Angeles County, and will have a wide-reaching impact on diverse communities and landscapes. The RPP will build upon previous fire planning efforts, complete updated risk mapping, and identify restorative projects. The SMMC is using RFFC funding to identify both implementation-ready projects and new projects, based on fire risk mapping, to mitigate brush fires. The RPP will be available within a year, both as a written report and a digital story map, with Spanish translation. The team has hired a consulting firm who will provide fire planning expertise and help develop the RPP- it is currently compiling existing plans, vegetation and cultural resources data, and best management practices in the region.

PARTNERSHIP & PLANNING

The MRCA Fire Division serves MRCA-managed properties (75,000 acres) and works closely with Los Angeles County, Los Angeles City, and Ventura County Fire Departments, California State Parks, the National Park Service, and the public to prevent and respond to wildfires on public lands, most recently

responding to the Bobcat Fire in the Angeles National Forest, and El Dorado Fire in the San Bernardino National Forest. The MRCA Fire Division maintains an expert resource protection workforce trained in terrain, topography, wildfire suppression, and year-round fuel management. Utilizing existing partnerships, RFFC funding will be used to expand these activities and develop demonstration projects to mitigate brush fires (such as reducing fine fuels) and tree planting activities over the next year.



Above: MRCA Fire Division clearing brush. Photo by MRCA Fire Division.



Above: Roadside vegetation management. Photo by MRCA Fire Division.

SANTA MONICA MOUNTAINS WOOLSEY FIRE RECOVERY AND ADAPTATION PROGRAM

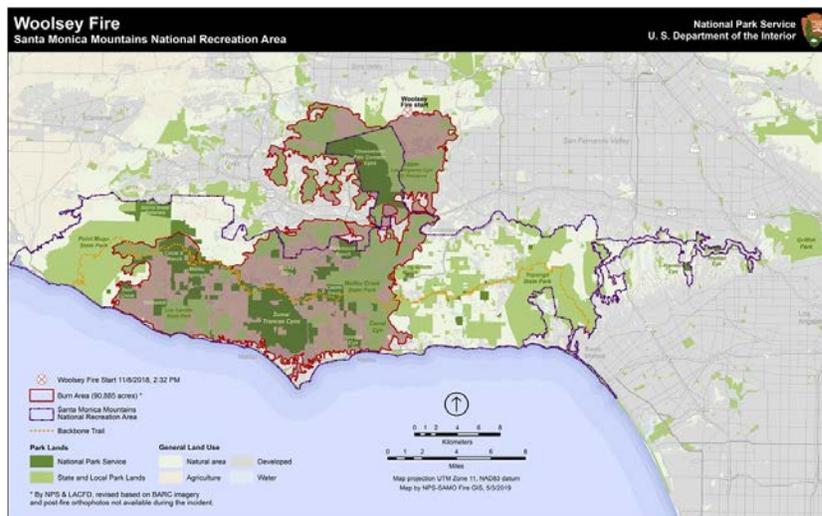
In 2018, the Woolsey Fire devastated 96,949 acres, and the SMMC has been actively involved in restorative and mitigative projects to prevent future fires from growing to that scale. The SMMC is coordinating with the Santa Monica Mountains Woolsey Fire Recovery and Adaptation Program, a complimentary fire planning project led by Conservation Biology Institute, with partners including National Park Service and the Resource Conservation District of the Santa Monica Mountains. This program seeks to complete updated fire-risk mapping, vulnerability assessments of homes and communities, and comparison of survivorship between burned and unburned homes and fuel modifications in the Santa Monica Mountains National Recreation Area. The results of the planning effort and the findings will be included in the SMMC's Regional Priority Plan

MRCA has also partnered with the Los Angeles Conservation Corps and the San Gabriel Valley Conservation Corps, local job-training organizations, to complete a planting effort of 1,120 new elderberry, sycamore, walnut, coast live oak, and valley oak trees as part of their Woolsey Fire restoration project at the Upper Las Virgenes Canyon Open Space Preserve. MCRA intends to emulate these efforts in one of their RFFC demonstration projects.

PARTNERSHIPS

The SMMC works closely with and is a member of the Los Angeles County 3rd District Fire Safe Alliance, a collaboration of Los Angeles County Fire, Los Angeles County Planning, SMMC, MRCA, the National Park Service, California State Parks, Las Virgenes Municipal Water District, the cities of Malibu and Calabasas, Southern California Edison, and a representative from the California Fire Safe Council. The SMMC also participates in the Technical Advisory Committee meetings for the Sustainable Defensible Space for Southern California project, funded by CALFIRE, which the RCD of Santa Monica Mountains is leading. In 2020, the program launched a best practices website to assist homeowners and landowners in restoring and creating home and landscape fire-hardening and fire-protection features. The Technical Advisory Committee includes Los Angeles County Fire Department, Ventura County Fire Department, National Park Service, California Native Plant Society, USGS Biological Survey, Topanga Fire Safe Council, and University of California Cooperative Extension.

Below: Map of the Woolsey Fire burn area. Map by the National Park Service.



Sierra Nevada Conservancy



The Sierra Nevada is an extraordinary region. It provides more than 60 percent of the state's water, sustains 60 percent of California's animal species and almost half of its plant species, and supplies up to half of California's annual timber yield. However, this region is facing unprecedented risks such as high-severity fires, tree mortality, and watershed degradation. These challenges require an all-hands-on-deck approach. Through their RFFC block grant, the Sierra Nevada Conservancy (SNC) is helping state and federal agencies, local organizations, and Tribes collaborate, build partnerships, identify priority projects, complete planning and permitting, and utilize best practices. The results will be faster, more effective forest and watershed restoration, benefitting the region and the entire state.



Above: The Feather River Resource Conservation District supervises a prescribed burn at Big Chico Creek Ecological Reserve. Photo by Brad Graevs.

A TAILORED APPROACH FOR A VAST REGION

The Sierra Nevada Region is home to more than 50 Tribes, 9 National Forests, 22 counties, 21 resource conservation districts, and dozens of fire safe councils. To promote local partnerships and planning at an effective scale, the Sierra Nevada Conservancy divided the region into seven geographies. RFFC funding has been distributed to leadership organizations in each geography. These organizations interviewed local stakeholders and Tribes to identify the most critical needs for planning, project development, and organizational capacity building. Each geography has developed its own strategy, using RFFC funding to overcome barriers and move forward with forest restoration and fire mitigation projects.



Above: Map of the seven geographies through which SNC is implementing the RFFC program.



Above: The Feather River Resource Conservation District supervises a prescribed burn at Big Chico Creek Ecological Reserve. Photo by Brad Graevs.

A FOUNDATION FOR RESILIENCE

The Sierra Nevada is only as resilient as the Tribes, organizations, and agencies woven into the fabric of its forests, watersheds, and communities. They bear the burden of restoring forest and watershed health, but have few resources to support their own organizational resilience. Forest Service budgets have been cut, resource conservation districts struggle to meet basic staffing needs, and most fire safe councils rely on volunteers. Many Tribes struggle to respond to multiple partnership requests and project notifications. Few resources exist for training, collaboration, and creating effective processes and systems to support restoration work. By investing some RFFC funding into trainings and building organizational capacity, we are maximizing the effectiveness of the resources invested in California ecosystem resilience.

Capacity Building

PUTTING RFFC FUNDING TO WORK

Leadership organizations conducted detailed needs assessments and are responding with communications support, mentoring, and trainings in workforce development, financial management, strategic planning, and funding development.

The Feather River Resource Conservation District led a prescribed fire training with the Plumas Underburn Cooperative. More than 700 acres of forests were restored to fire-resilience and staff from several organizations were trained to organize and implement additional prescribed fire projects. In the southern Sierra, RFFC funding supported the formation of a new Southern Sierra Burn Cooperative, where Tribal youth and local residents are trained to use traditional Native American cultural burning practices to further community fire protection.

After the Mountain View Fire decimated the town of Walker in Mono County, the website developed by the Eastern Sierra Wildfire Alliance with RFFC funding was transformed into a resource for fire victims and other community members, with information in English and Spanish.

The Shasta County Fire Safe Council used RFFC funding to design and submit funding proposals for a community fuels treatment project, resulting in partnerships with nearby fire safe councils to share expertise and a memorandum of understanding with a local community foundation to increase resources for these efforts.

Project Development

GETTING PROJECTS IN THE PIPELINE

Forest restoration at this scale requires multiple partners, funding sources, and steps, including partnership development, project planning and prioritization, environmental permitting, and funding development. A successful project pipeline delivers a reliable stream of "shovel-ready" projects. However, the pipeline only works if it's continuous from beginning to end, and breaks down if the people charged with any of these steps lack the capacity or resources to make them happen. Resources available for planning and permitting are scarcer than implementation funding. RFFC is helping to repair the gaps in the project pipeline in each geography and maintain a steady flow of shovel-ready projects for funding and implementation.



Above: Sierra Corps Fellows training in the field with CAL FIRE.
Photo by Nicole Lutkemuller.

PUTTING RFFC FUNDING TO WORK

The Feather River Resource Conservation District is using RFFC funding to identify projects that already have permitting in place but have not been implemented, targeting them for the project pipeline.

The Great Basin Institute is creating a template for permitting fuels management projects in eastern Sierra riparian corridors, which are particularly flammable due to vegetation density and continuity. This template can be modified for individual projects, streamlining and reducing the cost of their permitting processes.

The Pit Resource Conservation District is developing a partnership with the Forest Service and the two largest private industrial timberland owners in the region to identify priority projects and move them into the project pipeline.

The Sierra Nevada Alliance has launched the Sierra Corps Fellowship program, which provides forestry graduates to organizations throughout the region to help them complete project planning, funding, and implementation. Two host organizations have already hired their Fellows as full-time employees by leveraging RFFC funding to secure funding for their positions.

Landscape-Level Planning & Coordination

SELECTING PRIORITY PROJECTS- PLANNING & MAPPING

The SNC has used its RFFC block grant to promote landscape-scale forest project planning and prioritization throughout the region. Many of these areas have multi-agency forest collaboratives which have already come together to reach consensus on priorities for restoration work.

RFFC funding is providing enhanced technology and additional staffing to support existing collaborative efforts. It is also helping organize new forest collaboratives where they do not already exist. The goal of these collaboratives is to identify projects with the highest impact on forest health and community protection and to move these into the project pipeline. This strategic approach increases the pace, scale, and effectiveness of forest management in the state.

PUTTING RFFC FUNDING TO WORK

The Amador-Calaveras Consensus Group has produced a user-friendly project mapping and prioritization tool that runs on an inexpensive online GIS platform and is designed so that stakeholders can enter data about their own projects, reducing the need for costly consultants. The tool also evaluates fire threat to high-value assets across the landscape providing a cost-effective and swift way to prioritize projects for funding and implementation.

The Eastern California Water Association has convened stakeholders from Inyo, Mono, and Alpine counties to form their first forest collaborative, coordinating ecosystem health and fire prevention efforts. They are establishing project prioritization criteria, allowing them to initiate a project pipeline.

The Tuolumne River Trust piloted the use of drones with sophisticated forest structure identification software to help plan and monitor restoration projects in an accessible and cost-effective way.

Forest restoration at scale is complex, and it only takes one bottleneck in organizational capacity, collaboration, or project planning for the project pipeline to break down. The Sierra Nevada Conservancy is putting RFFC funding to work helping our on the ground partners to eliminate those bottlenecks and create a reliable flow of shovel-ready projects throughout the Sierra Nevada.

Below: Drone in flight gathering data for Tuolumne River Trust. Photo by Byron Krempf.



California Fire Safe Council



CAPACITY BUILDING AND OUTREACH PROGRAMS

The California Fire Safe Council (CFSC) Regional Coordinators are developing a cohesive, regional approach to capacity building in efforts to better support local fire safe councils (FSCs) across the state. The program launched with a strategically-focused survey of local FSCs aimed at determining the varying needs of each council by region. This information was used to develop CFSC's Outreach and Capacity Building Program.

In addition, the CFSC Regional Coordinator team is working on a comprehensive data collection and mapping project with our CFSC Climate Corps Fellows. Targeted information gathering includes identifying vulnerable, at-risk, low-income, under-served, and under-resourced communities. The maps will help to identify areas in need of CFSC/local FSC assistance in their efforts to increase communities' wildfire resilience.

EDUCATION, OUTREACH AND PEER CONNECTION

California hosts 152 local fire safe councils. These grassroots organizations are the "boots on the ground" troops working to ensure that their community is fire-adapted. The CFSC Regional Coordinators have developed strategies and built programs designed to build the capacity of local fire safe councils, including the facilitation of opportunities to connect with each other, a need that has long been desired but never facilitated. CFSC Regional Coordinators host monthly regional connection

calls, facilitate peer learning opportunities, and mentorship relationships, and provide topic-specific webinars and workshops featuring subject matter experts. In addition, the team is developing educational materials based on the recently completed FSC-specific capacity needs assessment.



Above: A fire safe council-led fuels reduction project in Santa Barbara. Photo by the Santa Barbara Fire Safe Council.

This report was created by the Watershed Research and Training Center, in collaboration with the other current RFFC block grant recipients. This work is funded by a grant from the California Natural Resources Agency and Department of Conservation as part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities. The Watershed Center is an equal opportunity provider. February 2021.

