UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

II. Academic Program Review Dossier Cover Page | 2025-2026 Review Cycle

Name, Lived Name: **Preferred Pronoun(s):**	Kathryn (Katie) Low she/her/hers
Academic Title:	Academic Coordinator II
County/Program:	UC ANR Fire Network (Statewide Network), based in UCCE Placer/Nevada Counties office
Review Type:	Merit
Current Rank/Step:	Step II
Requested Rank/Step:	Step III
Review Time Period:	October 1, 2023 to September 30, 2025
Thematic Areas:	1. Enhance Forest Ecosystem and Human Community Wildfire Resilience 2. Fire and Forestry Workforce Development

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UNIVERSIDAD DE CALIFORNIA
Agricultura y Recursos Naturales

Position Description
Kathryn E. Low
Fire Academic Coordinator II

Effective Date: September 1, 2022

PURPOSE & CLIENTELE

The Fire Academic Coordinator (hereafter Statewide Coordinator) will help California's residents, professionals, local, state, and federal fire agencies and organizations, and communities accelerate fire adaptation and resilience actions. Through work with the Director of the UCANR Fire Network, UCCE Fire Advisors, and other Network members, they will develop and deliver comprehensive fire education for diverse audiences, supporting individual education, workforce development, and action planning. The intent of the Statewide Coordinator position is to support and help coordinate the work of UCANR's Fire Network, which consists of UCCE Fire, Forestry, and Livestock and Natural Resource Advisors, UCCE Specialists, UC faculty, other UCANR statewide program staff, and key external partners.

The Statewide Coordinator works with the Director of the UCANR Fire Network and other Network members to provide points of connection for private forest landowners, natural resource agencies, tribal organizations, local governments, and California residents to achieve greater wildfire resilience. The Statewide Coordinator is based out of the UCCE Placer/Nevada office in Auburn, CA, but has a statewide appointment. More than 50% of the Statewide Coordinator's time will go toward supporting the efforts of the UCANR Fire Network with the freedom and flexibility to develop and deliver fire and natural resource-related programs locally to small forest landowners, residents, and natural resource professionals in collaboration with regional advisors and local partners.

ACADEMIC PROGRAM MAJOR RESPONSIBILITIES

- Develop and implement effective UC ANR Cooperative Extension applied extension and educational programs to address the identified priority needs of the clientele that are consistent with UC ANR's Strategic Vision.
    - **Technical Competence & Impact**
        - Engage with UCCE Advisors and UCCE Specialists to identify priority issues and problems related to wildfire affecting diverse clientele across the state.
        - Ensure clientele needs are assessed, and develops program goals to successfully meet clientele needs, in alignment with UC ANR's statewide Strategic Vision and initiatives.
        - Maintain and promote UC ANR's credibility by supporting research activities and providing science-based knowledge and skills independent of personal or parochial interests.
        - Develop and deliver education programs and curriculum related to fire science and management.
        - Develop and manage grants that enhance Fire Network development.

- Represent UC ANR locally in a professional manner.
- As relevant, oversees delivery of UCANR Fire Network programs at the local level; works with UCANR Fire Network Director, UCCE Fire Advisors, and key staff to ensure that outcomes and impacts are measured and communicated.

- **Communication**

  - Assess and identify priority issues or problems relevant to the local clientele groups being served.
  - Disseminate useful, science-based information to inform clientele, using extension methods that are responsive to clientele needs and appropriate for the audience and situation.
  - Evaluate programs and report accomplishments, results, and potential or actual impacts to scientific and lay audiences.
  - Foster an increased understanding of UC ANR's Cooperative Extension's research and education programs in clientele, the public and policy makers.
  - Effectively use online communication methods and associated software programs to support research and instruction.
  - Actively advocate for UC ANR program awareness and support.

- **Collaboration, Teamwork & Flexibility**

  - Develop collaborative teams with other UC ANR academics, campus-based specialists and faculty and/or others, to address priority issues for UC ANR.
  - Help facilitate divergent interests in the public policy arena to effectively bridge divergent interests around a variety of natural resource issues that impact subjects within the UC ANR purview.
  - Interact with UC ANR Program Teams, specialists and others within the research/extension network to develop, strengthen and expand program goals.
  - Participate in UC and UC ANR leadership, through committees, task forces and other formal or informal structures.
  - Serve the California public by participating in activities of public agencies and organizations.
  - Interpersonal Relationships: Be an effective listener and communicator, take responsibility for our own actions, motivate others, keep commitments and cultivate political and industry support for UC ANR.
  - Build relationships to work with diverse populations and acclimate to varying circumstances.

- **Professional Development & Lifelong Learning**

  - Participate in professional organizations and collaborate with federal, state and county governmental agencies, non-government organizations and others by providing independent science-based information and leadership.
  - Maintain a program of continuous self-improvement by participating in in-service training, seminars, workshops, work group & program team meetings, short courses, professional society meetings and other relevant opportunities.

AFFIRMATIVE ACTION and DIVERSITY, EQUITY, AND INCLUSION (DEI)

- Comply with all applicable federal and state laws and regulations, and all University policies regarding affirmative action, including prohibition of discrimination on the basis of race, color, national origin, religion, sex, sexual orientation, physical or mental disability, age, veteran status, medical condition, ancestry or marital status.

- Promote, in all ways consistent with other responsibilities of the position, accomplishment of the affirmative action goals established by UC ANR.

- Take all measures necessary to assure any employee or volunteer workers supervised by this position fulfill their affirmative action responsibilities.

- Develop a statement of program mission and definition of potential program clientele that embody a commitment to serve diverse ethnic and gender groups.

- Plan and conduct programs in such a manner as to provide equitable service to all ethnic and gender groups that comprise the potential clientele population for the program.

- Identify any barriers to clientele participation related to ethnicity, gender, or other characteristic of concern under the University's affirmative action policies and take corrective action as needed to remove such barriers.

- Collect, and keep current, demographic data identifying the ethnic and gender distribution of the potential clientele populations for the program and describing other characteristics of the population relevant to the pursuit of the Division's affirmative action goals.

- Compile and maintain documentation of service to each ethnic and gender group within the clientele population served by the program, including statistical records of clientele contacts, quantitative evaluations of benefits realized by clientele and reports of any special efforts to serve under-represented groups.

RELATIONSHIPS

Administratively responsible to **UCCE Placer/Nevada's County Director** for the conduct of the UC ANR program(s). Additionally, the Academic Coordinator's work is supervised by the Director of UC ANR's Fire Network.

QUALIFICATIONS

A **Master's Degree in natural resource management, fire, or related area** with general knowledge of fire science and management and ability to communicate complex natural resource-related concepts to landowners, community members, and academics is required. Specialty and/or professional experience must demonstrate capacity or potential to accomplish team-based research and education programs consistent with the values of Cooperative Extension.

A Registered Professional Forester license may be required or encouraged over time depending on the focus of the Fire Academic Coordinator's efforts.

Must be able to work independently and collaboratively in teams, and provide leadership for research and education activities. Must be adaptable to different work circumstances and work with a diversity of people and collaborators.

Must be literate in internet communications and software appropriate to support education and outreach programs.

Reviewers:

Kathryn E. Low

Kathryn Low, Fire Academic Coordinator II — 09/05/2023 Date

Daniel K. Macon Digitally signed by Daniel K. Macon Date: 2023.09.19 17:11:27 -07'00'

Dan Macon, UCCE Placer/Nevada County Director — Date

Lenya Quinn-Davidson, UC ANR Fire Network Director — 9/15/23 Date

Final Approvers:

Dr. Daniel Obrist
Vice Provost of Academic Personnel — Date

Program Summary and Narrative

Program	Yearly FTE
Fire Management, Policy, and Resiliency	75%
Forest and Upper Watershed Systems	15%
Labor and Workforce Development	10%

Introduction

As UC ANR Fire Network Statewide Coordinator, I work with the Network Director, Network members, and key partners to support Network clientele in accelerating fire adaptation and resilience actions. Following my collaborative, statewide needs assessment in 2023, I began building an extension program centered around 1) establishing and growing the new statewide Fire Network, 2) supporting the emerging programs of regional fire advisors and staff, and, with the support of my County Director, 3) delivering fire-related research and extension programming in Placer and Nevada Counties. **My main clientele is 1) California's small private forest landowners, 2) Placer and Nevada county residents, and 3) fire and natural resources professionals.** However, I am working with the Network Director to identify new statewide clientele groups that can also benefit from Network programming and we are revising my position description to reflect these new groups in early 2026.

My program centers around two themes: **Enhance Forest Ecosystem and Human Community Wildfire Resilience** (*UC ANR Public Values: Securing safe and healthy environments and Building climate-resilient communities and ecosystems*) and **Fire and Forestry Workforce Development** (*UC ANR Public Values: Developing a qualified workforce for California and Developing an inclusive and equitable society*). In order to expand the Network's collective impact, I collaborate with the Network Director and members to support their programs, develop statewide materials, explore new funding sources, and build collaborative partnerships. Additionally, through organizing and leading workshops and collaborating on research, I empower California's landowners and residents to actively protect their homes and manage their lands to increase wildfire resiliency. I also provide fire and natural resource professionals with the resources they need to pursue viable careers in fire and forestry.

Theme 1: Enhance Forest Ecosystem and Community Wildfire Resilience

Background, Rationale, and Problem

Past land management practices and climate change have left forests and communities more vulnerable to catastrophic wildfires. To reduce risk, woody fuels and vegetation can be managed through fuels reduction treatments (e.g., prescribed fire, thinning, targeted grazing). Additionally, structures can be hardened to resist embers, heat, and flames and fire-smart landscaping can be implemented to reduce fuel continuity between structures. However, residents and landowners often lack the technical knowledge, skills, and resources to reduce fire risk. Along with Network Members, I provide California's small forest landowners and Placer and Nevada County residents with the knowledge and resources they need to actively manage their properties to increase wildfire resiliency. In order for the Network to successfully deliver robust, fire-related research and extension programs, a core component of my program includes coordinating various statewide projects and supporting Fire Advisors and staff.

Methods and Outcomes by Project

During this review period, I worked closely with the Network Director, UC ANR academics and staff, and key external partners to develop Network activities and relationships. Collaborators and I reached 2,748 small forest landowners, residents, resource professionals, and UC ANR colleagues through 56 extension events and educational meetings related to wildfire preparedness and fuel reduction.

UC ANR Fire Network Coordination: Following the establishment of the Network in April 2023, I have been integral in helping establish and grow the statewide Network. To increase our visibility among UC ANR programs and external partners during the review period, I collaboratively hosted twenty-five webinars and networking events and was a Network liaison at seven partner organization events. In total, I reached 1,922 residents, landowners, agency partners, and policy makers through these efforts.

Outcomes: I work with UC ANR Advisors to plan and develop academically rigorous statewide programming around wildfire preparedness for diverse audiences. In my recent survey of UC ANR academics and staff who frequently work with the Network (*n =20*), 79% indicated I am very helpful at establishing partnerships with local and/or statewide clientele and 95% indicated critical statewide programming (i.e., factsheets, webinars, social media) would not have been delivered without me as Coordinator. I coordinated and facilitated six statewide webinars on structure hardening and defensible space strategies for urban and rural communities. Of the 102 participants that filled out post-event evaluations, 97% indicated that because of the webinars, they felt confident in accomplishing near-home wildfire preparedness projects within the next year. Ninety-five percent of participants planned on sharing webinar knowledge with their community. As a liaison of the Network, I spoke to the California Congressional Republican District Directors about Network programming and ways we can collaborate with policy makers. My presentation led to the Network partnering with Assemblywomen Diane Dixon and Gail Pellerin on two town halls in Orange and Santa Cruz counties. I am also working with the Network Director, UCCE Advisor Yana Valachovic, and other members to develop proposals for program funding; I am a project collaborator on a recently granted direct award from CAL FIRE ($1,379,729.00 from June 2025-July 2028).

UC ANR Fire Advisor and Staff Program Support: Fire advisors and staff are core members of the Network. As Coordinator, I logistically support the academic program planning and development of fire advisors, directly supervise two dedicated Network staff, and co-organize bi-monthly team meetings.

Outcomes*:* During the review period, the predominant change in my responsibilities as Coordinator was becoming the direct supervisor for two staff research associates, Isabella Zahra and Joaquin Pastrana. I prioritize and guide Zahra and Pastrana's workplans based on local and statewide Network needs and support their professional development. I also oversee Zahra's creation and management of all Fire Network social media platforms (BlueSky, Facebook, Instagram, LinkedIn, X, YouTube) and collaborate on new social media content. I collaborated with the Network Director and members to develop logic models and standardized event evaluation questions so we can better evaluate Network program activity and impact across the state. I am working with Placer County's Office of Emergency Services to pilot a new survey approach that leverages existing annual Firewise Community residential reporting requirements to better determine the regional outcomes of my local extension programs. In 2025, 133 Placer County residents reported activities using my survey; 46% of residents referenced Network extension materials, social media posts, or knowledge gained from attending Network events to complete required wildfire preparedness projects within the last year. Initial results indicate that this survey method, which can be applied to any county in California, is a viable way to capture longer-term, action-based outcomes of our programs. I will work with fire advisors to implement this tool across multiple counties within the next few years.

Community Fire Adaptation and Fire Ecology Training for UC Master Gardeners: Master Gardeners are a trusted source of information for the public, and volunteers are often asked to advise on home hardening and defensible space issues. However, there is no formal, science-based fire preparedness training to equip volunteers with the information and resources needed to assist clientele. The Fire Network is developing asynchronous online fire-related trainings for Master Gardener volunteers. As Project Manager, I oversee the development of eleven trainings about fire ecology and preparedness. Network members and I delivered two virtual trainings in summer 2025, reaching 932 volunteers.

Outcomes*:* I led a survey effort (*n = 136*) to evaluate learning outcomes from the live trainings. Eighty-three percent indicated that due to the training, they better understood how incorporating regional fire ecology concepts into near-

home landscaping helps build fire-adapted landscapes. A Network Coordinator, I am responsible for co-developing all training modules, which will be required trainings for over 6,000 volunteers across the state starting early 2026.

Wildfire Preparedness Workshops for Small Private Landowners*:* Key elements of wildfire preparedness include hardening structures, implementing defensible space, and managing vegetation. Residents and landowners often lack the technical knowledge, skills, and resources to implement treatments. During the review period, I collaborated with UCCE advisors, staff, and agency partners to host six workshops about wildfire preparedness and fuels reduction and presented about these topics at twelve educational meetings. In total, I reached 594 residents and landowners through these efforts.

Outcomes: I collaborated with UCCE Forestry and Horticulture advisors and staff to host three "Wildfire Preparedness Walking Tours," reaching 85 residents. The Tour is a new, interdisciplinary workshop model I designed to provide participants with "hands-on" experience learning about home hardening and defensible space from UCCE and local fire agencies. When asked which of the preparedness solutions presented during the workshop was most feasible to complete within the next year, 59% indicated creating a 5-foot non-combustible zone is most feasible, followed by cleaning and maintaining roofs and gutters (58%). In a follow-up survey, four participants indicated they used workshop knowledge and materials to complete said preparedness work on their properties less than one-year post-workshop.

Efficacy and Commercial Viability of Targeted Grazing for Fuels Reduction*:* Agencies and communities across the state are using targeted grazing to reduce fire risk, however, there is little empirical evidence documenting treatment efficacy in forests. I am collaborating with UCCE advisors, specialists, and local partners to assess the efficacy of targeted grazing for fuel reduction in wildland-urban interface communities. During the review period, project partners and I hosted two field tours and I shared project outcomes at three conferences. In total, I reached 147 landowners and natural resource professionals through these efforts.

Outcomes: During the review period, our project team completed a multi-year assessment of small ruminant targeted grazing in young conifer plantations at Blodgett Forest Research Station. We leveraged preliminary results from this study to successfully obtain $174,886 in competitive grant funding to expand our project to evaluate the applicability of grazing as a post-fire reforestation site preparation tool. As project co-lead I co-developed three field monitoring protocols to assess efficacy of grazing treatments to meet project objectives, I lead field crews to collect data, and I am also co-leading data analysis efforts. In summer 2024, our team hosted a Targeted Grazing Field Day; 100% of participants noted the event improved their knowledge of targeted grazing as a fuel management tool and 54% were inspired to implement or change their targeted grazing program.

Anticipated Impacts for All Projects Under Theme 1

My efforts under this theme contributes to active ecosystem stewardship and the creation and persistence of fire-resilient communities across California. Not only do residents and landowners leave my events with the knowledge and inspiration to prepare for wildfire, they also use the knowledge I shared and Network materials I helped produce to implement critical fuel reduction and structure hardening projects on their properties. Additionally, the original research I am helping produce is directly informing fuel treatments at the landscape level. Based on existing outcomes of ongoing projects, I anticipate my program will contribute to ***improved land stewardship, increased ecological sustainability of agriculture, working landscapes, and natural ecosystems,*** *and* ***increased ecosystem resilience to extreme weather and change in climate****.* I intend to collaborate with the Network Director and other members to evaluate the impacts of the Network through long-term monitoring and evaluation of clientele and projects.

Theme 2: Fire and Forestry Workforce Development

Background, Rationale, and Problem

The need to develop a robust workforce of forestry and wildfire professionals to meet the growing challenges of forest management in California is well-recognized. However, current workforce development efforts focus on increasing program enrollment at credentialed forestry degree programs, often overlooking retention after training is complete. Furthermore, changing demographics throughout the state and in early-career professionals suggest a need to create conditions within the workforce that welcome multiple forms of diversity. I provide fire and natural resource professionals with the resources (e.g., networking opportunities, workshops) they need to pursue viable careers in fire and forestry. Core elements of my work involve centering the needs and perspectives of professionals with historically underrepresented identities and reducing barriers to enter the fire and forestry workforce. Through my program, I also aim to enhance workplace values of inclusivity and belonging, which are fundamental, but often overlooked, factors in ensuring the retention of a diverse workforce.

Methods and Outcomes by Project

During this review period, I collaborated with UCCE advisors and community partners to host six networking opportunities and workshops, and helped coordinate a statewide mentoring program aimed at training new members of the fire and forestry workforce. I leveraged state and private funding to expand the extent of my program to reach 130 students and professionals. My efforts under this theme align with **UC ANR Condition Changes** *1) Improved workforce development for individuals, communities, and industry and 2) Improved readiness to access post-secondary education and career opportunities*.

***Forestry and Natural Resources Career Mentorship Program*:** In order to address significant fire- and forestry-related workforce development challenges, I collaborate with the Placer Resource Conservation District, CAL FIRE, UCCE advisors, and other forestry professionals to manage a statewide program aimed at supporting the professional development of early-career professionals, particularly those with historically underrepresented identities. During the review period, I was 2023-2024 Program Year Chair and a Steering Committee Member. I delivered Program content to a network of 236 participants and external partners, which consist of students from eight universities and community colleges and fire/natural resource professionals.

Outcomes: During the 2024-2025 Program Year, myself and collaborators implemented a survey to assess the Program's cumulative outcomes since its inception in 2020. Of the students who completed the survey ($n = 66$), 72% said they would like to continue their mentoring relationship beyond the Program's completion, which not only indicates the overall success of the Program's pairing process, but also suggests retention in the forestry field. Forty-three percent of students indicated the Program improved their perspective on a potential career in forestry and 71% said the Program helped them build their professional network. In a separate survey effort, professionals recognized the value of the **Diversity, Equity, Inclusion, and Justice (DEIJ)** workshops we hosted, with one citing they "*gave the opportunity to look beyond the profession and get to learn about people for who they are and their values.*" One special outcome of this Program is the ability for our work to enhance the sense of community and belonging among early-, mid-, and established career professionals, as summarized nicely by this professional: *"I also feel the mission of the program and the opportunities it creates for young and older professionals is amazing and refreshing for an industry that can often feel "stuck in its ways.""*

Anticipated Impacts for All Projects Under Theme 2

My efforts under this theme contributes to improved awareness of career opportunities and access to professional development resources. In addition to reducing barriers to enter into the forestry and natural resources profession, early career professionals indicated programs and events I helped facilitate fostered an improved sense of professional belonging and an overall willingness to stay in the profession. Based on existing outcomes of ongoing projects, I anticipate my program will contribute to ***improved workforce development for individuals, communities, and industry*** *and* ***improved readiness to access post-secondary education and career opportunities***. I intend to work with

project collaborators to evaluate the impacts of my workforce development activities and programs through long-term monitoring and evaluation of clientele and projects.

Professional Competence and Activity

My **Evidence of Professional Competence** includes being a member of four Workgroups, presentations at conferences, and helping plan the National Cooperative Extension Fire Peer-Learning Exchange with the Association of Natural Resource Extension Professionals. I reviewed 14 Concept Proposals and 5 Full Proposals for the 2024-2025 CAL FIRE Forest Health Research Grant Program. I also continued membership with/joined three professional societies. As a member of the Association of Fire Ecology, I co-chair their international Mentoring Futures Program.

As an early-career academic, I am improving my technical and professional competence through **Professional Development and Trainings.** During the review period, I participated in nine professional fire and natural resource-related trainings and am participating in weekly Registered Professional Forester Exam preparation courses hosted by the California Licensed Foresters Association. I became certified in Wilderness First Aid and CPR in June 2025. In order to continue upholding **UC ANR's Principles of Community**, I completed five DEIJ trainings.

University and Public Service

My **University Service during this review period includes** supporting university activities at multiple levels. I participated on five search committees for academics and staff, one of which I was Committee Chair. I represented the UC ANR Fire Network at three UC ANR Programmatic/Administrative Orientations and two professional meetings that UC ANR has sponsored. I joined the Academic Coordinator Committee, for which I am now Co-Chair Elect.

My **Public Service during this review period** includes serving on the Placer Prescribed Burn Association Advisory Committee, a Voting Committee Member for the Placer County Hazard Mitigation Plan Update, and a member of the Placer County Fire Safe Alliance. I was a Technical Advisor for the Forestry and Fire Recruitment Program's Reimagining Forestry and Fire Career Pathways for Justice-Impacted People in the Bay Area, California Project.

Civil Rights Compliance and Contributions to UC ANR's Principles of Community

My program supports private forest landowners, fire and natural resource professionals, and residents in high fire hazard areas in Placer and Nevada counties. I am in compliance with civil rights policies and regulations and I leverage my privilege as an academic to collaborate with historically underrepresented groups within my program areas. I aim to incorporate **UC ANR's Principles of Community** into all aspects of my work. I organize workshops and community events that foster a respectful and safe learning environment for diverse clientele. I worked with partners to develop trainings for fire and natural resource professionals to improve workplace culture toward equity, inclusivity, and belonging. I advertise all workshops and webinars to clientele locally and statewide through print, electronic media outlets, social media, and personal communications. I developed a partnership with the California Fire Science Consortium's WUI Subregion, which led to the Spanish translation of many Network materials.

Closing Summary

As the Statewide Coordinator of the UC ANR Fire Network, I support the growth of the Network and programs of Fire Advisors and staff. I also continue to fulfill a local need for a dedicated fire-focused academic by delivering fire-related research and extension programming to local clientele in Placer and Nevada counties. My efforts during this review period are commensurate with those expected of an Academic Coordinator II Step 3. From October 1, 2023 to September 30, 2025, I reached 3,810 clientele through 68 organized workshops and educational meetings and authored one peer-reviewed and 29 fire-related extension documents. I am proud of the early outcomes of my programming and the partnerships I have developed locally and statewide. I look forward to continuing to work with Fire Network members and partners to help California's residents and resource professionals learn to live with fire.

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Fire-Smart Landscaping in the Sierra Foothills

California's Sierra Foothills are a diverse ecoregion composed of grassland, chapparal, hardwood, and conifer ecosystems. While plants native to the Sierra Foothills have coevolved with fire, recent wildfires increasingly demonstrate behavior which exceeds the natural tolerance of these species. Landscaping with plants adds further challenges, particularly considering how structures, defensible space, and surrounding wildland fuels interact during a wildfire. To reduce wildland and home landscape fuels, residents can leverage the natural characteristics of plants to apply the principle of "Right Plant, Right Place" and create robust, fire-smart landscapes.

Fire in Near-Home Landscaping

During wildfire, both live and dead vegetation become sources of fuel. By managing near-home fuels, residents can eliminate pathways for wildfire to spread, isolate fire when ignition occurs and reduce risk from ember-driven ignition (Figure 1). Understanding how fire behaves in each fuel type can help inform proper placement of native plants.

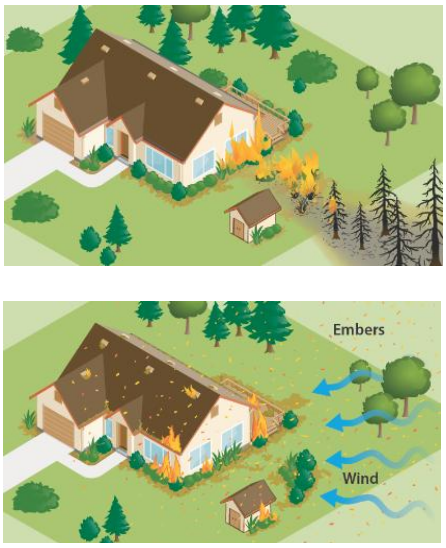


Figure 1 *(Top) Movement of fire through contiguous vegetation (Bottom) Ignition of near-home landscaping from embers (Valachovic et al, 2021).*

Surface Fuels include ground covers, low growing grasses, herbaceous, and woody perennials. Surface fuels produce light foliage which develops into fine fuels that are easily ignited and burn rapidly. Contiguous surface fuels can carry wildfire across a landscape and lead to ignition of heavier adjacent fuels (e.g., fences, patio furniture, structures, and woody vegetation). To minimize risk, reduce plant densities, particularly for taller-statured plants and create fuel breaks using non-combustible walkways. Short-statured surface fuels should be arranged into "islands" separated by non-combustible materials.

Ladder Fuels include woody shrubs, tall grasses, vines, and lower limbs of dominant trees. Ladder fuels carry fire vertically into the crowns of dominant vegetation, i.e., trees. Reduce the density of ladder fuels across the landscape to reduce opportunities for surface fire to carry into the canopy. Maintain spacing between individual plants to be at least twice the height of the mature plant, and increase spacing on steeper slopes (Figure 2).

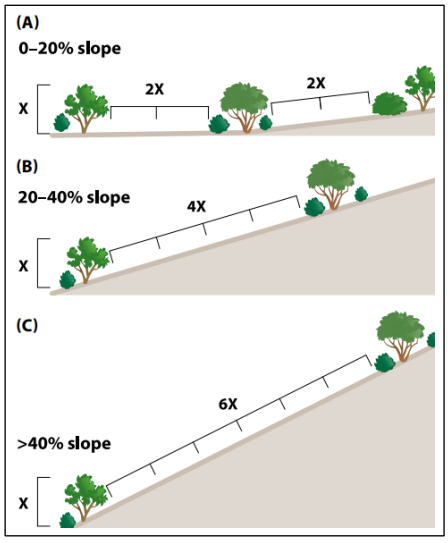


Figure 2 *Double or triple distances between vegetation as compared with flat ground depending on steepness (Valachovic et al, 2021).*

Ladder fuels can also be planted or managed into "islands" of vegetation separated by non-combustible space. Islands reduce the potential for fire spread; even if one island catches fire, other islands would need to be independently ignited. Additionally, proper landscaping within these islands can slow the development of weeds and other surface fuels.

Crown fuels include the upper canopy of dominant vegetation, i.e., the tree canopy for most landscapes. While many native tree species have adaptations to resist low intensity fires, crown fires can damage the foliage and lead to mortality. Pruning the limbs up along the stem of overstory trees reduces the vertical continuity of fuel in the landscape and the volume of material available to burn during a fire.

Defensible Space Zones

All plants, including those marketed as "firesafe" or "fire resistant" burn under the right conditions. Instead of considering how 'safe' a plant will be during fire, align plant characteristics with defensible space zones to create a fire-smart landscape.



Figure 3 *Implementation of the three zones in a defensible space strategy.*

Defensible Space Zone guidelines help mitigate the intensity and spread of wildfires by increasing the horizontal and vertical space between fuels. Consider the purpose of each defensible space zone when designing a landscape (Figure 3):

Zone Zero (0-5 ft) reduces the potential for direct flame contact and ember ignition to the home by removing all vegetation and combustible material. Creating a clear perimeter around the house and any attached structures also reduces the potential for combustible windblown debris to accumulate. Use pathways composed of concrete, pavers, rock mulch, pea gravel, or bare soil.

Zone One (5-30 ft) slows the spread of wildfire to aid firefighters in structure defense. Zone One also reduces the potential for crown fire by creating discontinuity between the surface and ladder fuels. Consider landscaping with individual short-statured trees, irrigated lawns, and garden beds. Non-turf perennial and annual plants should be planted in "island" garden beds. Prune and thin plants to increase spacing between each other and the home.

Zone Two (30-100+ ft) moderates the behavior of approaching wildfire. Under moderate conditions, a crown fire in Zone Two may drop out of the canopy to the ground and burn with less extreme behavior. Reduce the continuity of fuel in the overstory by thinning trees and shrubs, pruning lower branches of trees to a height of 6-10 feet, and removing all dead and dying vegetation. Maintain grasses at a maximum height of 4 inches in this zone.

Planting Considerations

When deciding which plants to use in near-home landscaping, consider how their physiology and placement will interact during a fire.

Ground covers: Plant in island garden beds surrounded by non-combustible walkways and paths. Combustible mulches such as composted wood chips, shredded bark, or shredded rubber can still lead to smoldering combustion and flame, posing additional risk especially when located next to structures.

Herbaceous perennials and short-statured (<1 ft) grasses: Plant in widely-spaced island beds. Separate beds with non-combustible walkways, rock walls, or areas of irrigated, mowed lawn. Do not plant perennials next to structures.

Shrubs, woody vines, and taller grasses: Plant shrubs and taller grasses individually or in small clumps apart from each other. Do not plant under trees, decks, or adjacent to buildings. Generally, space the distance between shrubs and smaller trees to be at least twice their height when mature, increasing the spacing on steeper slopes (Figure 2). Near trees and buildings, plant only widely separated, low-growing, non-resinous varieties. Choose shrubs that are low growing, with minimal dead material and supple leaves. Choose hedge and screen plants with broad, waxy leaves and that don't build up dead material.

Trees: Position trees so that crowns are at least 10-15 feet away from structures. Leave plenty of room between trees to allow for growth; at least 10 feet between mature tree crowns.

Native or drought-tolerant plants: Plants native to your local area and Sunset Western Garden climate zone tend to establish better, can require less maintenance, and may do well with little to no additional water or other resources.[1] Many drought-tolerant plants are not ignition-resistant especially after a long dry period. It is critical that you know your plants' biophysical characteristics and maintenance needs so you can manage them appropriately. All plants will burn if a fire produces enough heat, particularly plants in poor health and are insufficiently irrigated and maintained.

Mulch: Inorganic mulches (i.e., rocks) are immune to combustion. On the other hand, organic mulches (i.e. wood chips, bark), though susceptible to combustion, still provide many benefits to landscapes[2] that are important to consider. Organic mulches can ignite from embers, radiant heat, or direct flame contact. Generally, an organic mulch with high proportion of small particles can create a bed that is well packed, with little oxygen between particles, and decrease the chance of ignition and flaming. Consider the following:

- Composted mulches have a greater proportion of small particles compared to larger particle mulches and are therefore less ignitable and flammable.[3]
- Coarse wood chips are more likely to catch embers and ignite because of the large space between particles and subsequent increased oxygen content.[4]
- Composted mulches typically smolder instead of producing flames.[5]
- Lighter mulches including pine needles, leaves, or straw are highly flammable.[6]

Horticulturists recommend mulching with arborist wood chips from tree pruning operations because it is readily available and provides benefits for trees and shrubs.[2] Arborist wood chips are composed of leaves and wood from all aboveground parts of the tree (Figure 4) and is suitable for composting. Be aware that bark mulches do not compost as quickly as wood chips, possibly requiring many years and additional nitrogen to compost. Keep mulch away from the base of trees and shrubs to reduce the risk of disease and protect the tree if the mulch does catch fire.



Figure 4 *Arborist woodchips before composting.*

Maintenance Considerations

Maintenance is not only important for reducing ignition risk in individual plants but keeps your defensible space intact. Poorly maintained plants accumulate dead foliage and branches more rapidly, which increases the ease of ignition from embers and surface fire. When designing home landscaping, consider not only where to plant, but how you plan to maintain the species in a fire-smart condition.

Turf grasses: Keep well-watered but avoid waterlogging soil. Consider using species that require less water and are less prone to drying out in the summer. Avoid practices that will increase excessive growth, like applying nitrogen fertilizer, to reduce thatch build-up. Maintaining grass at low heights will also help reduce build-up of thatch and debris over time.[7] Periodically remove and dispose of dead thatch layers.

Ornamental grasses: Warm season grasses typically go dormant in the fall and are more prone to ignition during this time. Cut back dormant ornamental grasses if the weather is dry and there is still a chance of fire. If there is sufficient rain to extinguish wildland fires, ornamental grasses should be cut back in late winter to protect them from frost. If grass has been cut back in fall, you may need to cover with frost cloth to protect it through the winter. Evergreen grasses should have the dead leaves and thatch periodically removed.

Herbaceous perennials: Remove and dispose of dead and dying materials regularly. All plants have a waxy coating, called the cuticle, on leaves to reduce water loss. Drought resistant plants often have thicker cuticle layers to decrease water loss. However, this protective film is also flammable[8] and will likely release more energy when burned. Aromatics and other volatile organic compounds (VOC) are also common in herbaceous perennials and large numbers of these plants can intensify a fire.[9,10] Resinous or oily leaves are an indicator of high-VOC content plants. It is recommended to maintain correct spacing of aromatic herbaceous perennials or avoid planting them in large densities. Examples of aromatic plants to minimally plant include rosemary, lavender, thyme, rockrose, and sages.

Shrubs or woody vines: Keep plants around shrubs low and free of dead material. Remove and dispose of dead and dying materials regularly. Hedges have an abundance of dead wood inside them and require extra maintenance to reduce ignition and combustion risk. Hedges should be properly spaced to reduce fuel continuity and regularly maintained to reduce the accumulation of dead wood and debris inside. A better alternative to hedges is to prune shrubs into a more natural shape when they are young by selecting a few main stems (Figure 5), thereby reducing the overall plant volume and opportunity for buildup of dead material. Prune to thin branch structure and minimize risk of leaves and needles being trapped and ignited by embers. Alternatively, shrubs can be maintained to be low growing (2' or lower) to minimize flame heights. Be mindful of plants that regularly shed bark or branches.



Figure 5 *Manzanita before (left) and after (right) regular pruning, resulting in a plant less susceptible to wildfire (Valachovic et al. 2021).*

Trees: Prune tree limbs to a height of six to ten feet to create an open crown structure and reduce ladder fuels. It is important to break up the horizontal and vertical fuel continuity around trees. Remove dead leaf and stem material within tree crowns and on the ground. Remove all shrubs and smaller trees growing under canopies of dominant trees. Trees which shed bark or branches are likely to need more regular maintenance to reduce fuel accumulations on the ground. Be mindful of species with significant leaf or needle drop and its impact on maintenance-related cleanup on the property, on the roof, and in rain gutters.

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Fire-Smart Considerations for Common Sierra Foothills Landscaping Plants

Physiological characteristics of plants can help guide fire-smart planting decisions. All plants burn under the right conditions, although some have characteristics which make them better adapted to fire in the appropriate defensible space zone. **The information provided below is specific to the Sierra Foothill region and assumes that plants are mature, properly irrigated, and growing in ideal conditions.** Water use classification is based on the WUCOLS (ccuh.ucdavis.edu/wucols) recommendations and growth rate indicates the rate of plant establishment and spread. It is encouraged to reference multiple sources, specific to the area that you are hoping to plant them in, when deciding which plants may be fire-smart for your home landscape.

Plant Name	Physiology	Fire-Smart Considerations
Agapanthus *Agapanthus spp.*  *Photo: Wiktionary 2012 Prenn*	**Form:** Herbaceous **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 12”-24” long, 1”-2“ wide, basal, linear, with entire margins **Size:** 1’-4’ tall and wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage and flowers around base of plant • Moderate growth rate • Water use classification: Low
Birch *Betula spp.*  *Photo: Wikipedia 2014 Jane Shelby Richardson*	**Form:** Shrub, tree **Type:** Perennial **Native:** No **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are 1”-5” long, slightly less wide than long, alternate, simple, and oval-shaped with doubly serrate margins **Size:** 25’-33’ tall, 25’ wide	• Waxy foliage • Accumulates dead foliage and bark around base; bark peels and sheds • Moderate to fast growth rate • Water use classification: High

Blackberry (California) *Rubus ursinus*  *Photo: CalPhotos 2008 Keir Morse*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves can be simple or compound, having three leaflets with the terminal leaflet being three-lobed, each is 1”-2.5” long and 0.5” wide, alternate, triangular-ovate, with coarse-toothed margins, and prickly veins **Size:** 2’-6’ tall, 6’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead woody material and foliage in and around base of plant • Fast growth rate, spreads rapidly and can become difficult to maintain • Water use classification: Low
Blackberry (Himalayan) *Rubus armeniacus*  *Photo: Calflora 2019 Connor O’Hara-Baker*	**Form:** Shrub **Type:** Perennial **Native:** No, INVASIVE **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are palmately compound, having three to five leaflets, with each being 1.5”-3” long, ovate in shape, with double-toothed margins, hooked prickles on stems and veins, and the stem is distinctly five-angled **Size:** 10’ tall, 13’-33’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead woody material and foliage in and around base of plant • Fast growth rate, spreads rapidly and can become difficult to maintain • Water use classification: Low • Invasive and difficult to maintain
Blue-eyed grass *Sisyrinchium bellum*  *Photo: Calflora 2024 Steve Conger*	**Form:** Herbaceous **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Narrow, grassy, sword-shaped leaves coming from tufted stems **Size:** 3”-18” tall, 4”-24” wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead material at the base • Moderate growth rate, spreads • Water use classification: Low • Do not cluster together as it can self-sow, creeping rhizomes will also enlarge the colony each year

Bottle brush *Callistemon spp.*  *Photo: Wikipedia 2017 Jim Evans*	**Form:** Shrub, tree **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 2”-4” in length and less than 2” in width, linear to lance-shaped, with entire margins, and are alternately arranged **Size:** 3’-15’ tall and wide	• Oily foliage • Accumulates dead foliage around the base of the plant and dead woody material in the interior sections of the plant • Moderate growth rate • Water use classification: Moderate to Low
Buck brush *Ceanothus cuneatus*  *Photo: Calflora 2021 Steve Matson*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are up to one inch long and less than an inch wide, elliptic to round in shape, generally have entire margins but can be toothed near top, oppositely arranged **Size:** 5’-12’ tall and wide	• Waxy foliage • Accumulates dead woody material and flowers in crown and around base • Moderate to fast growth rate, spreads • Water use classification: Very Low • Highly flammable, reduce risk by pruning mature shrubs to reduce density of fuels
California buckeye *Aesculus californica*  *Photo: Calscape 2012 Gary A. Monroe*	**Form:** Tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous, beginning in summer **Foliar Description:** Leaves are palmately compound with 5-7 leaflets that are each 2”-7” in length, lanceolate to oblong shape, finely serrate margins **Size:** 13’-39’ tall, 40’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage in canopy and around base • Moderate growth rate • Water use classification: Very Low • Leaf drop occurs in summer

California Fuchsia *Epilobium canum*  *Photo: Calscape 2015 Steve Matson*	**Form:** Herbaceous **Type:** Perennial **Native:** Yes **Foliar Persistence:** Semi-deciduous **Foliar Description:** Leaves are 0.5”-2.5” in length, linear to widely ovate in shape, entire to strongly toothed in shape, and sessile; the plant is clumped with basal scaly shoots **Size:** 3”-18” tall, 2’-3’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage and flowers in and around base of plant; will die back and go dormant in winter, so it is best to cut it back to the ground once the flowers are spent • Fast growth rate, spreads through self-seeding and creeping rhizomes • Water use classification: Low
California Poppy *Eschscholzia californica*  *Photo: Calscape 2010 Neal Kramer*	**Form:** Herbaceous **Type:** Annual, perennial **Native:** Yes **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are finely subdivided two to four times into obtuse or acutely lobed segments, are arranged alternately, can be basal or cauline, and are much branched **Size:** 0.5’-1’ tall, 0.5’-2’ wide	• Waxy foliage • Accumulates dead material; cut down to ground after plant dies back in summer and goes dormant • Moderate to fast growth rate • Water use classification: Very Low • Self-seeds freely but is not particularly invasive
Camellia *Camellia spp.*  *Photo: Wikipedia 2004 Kowloonese*	**Form:** Shrub **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 3”-4” long, simple, thick, have finely serrate margins, are leathery and glossy, and are alternately arranged **Size:** 6’-8’ tall, 6’ wide	• Waxy, oily foliage • Accumulates dead flowers in canopy and around base • Slow growth rate • Water use classification: Moderate

Ceanothus *Ceanothus spp.*  *Photo: Calflora 2020 Julie A. Kierstead*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves vary in size from 0.5”-3”, are ovate, most with slightly serrate margins, have three prominent parallel veins from base to tip of leaf, and have a glossy upper surface **Size:** 2’-10’ tall, 6’ wide	• Waxy foliage • Accumulates dead woody material and flowers in canopy and around base • Moderate to fast growth rate, spreads • Water use classification: Moderate to Low • Highly flammable, reduce risk by maintaining mature shrubs
Citrus *Citrus spp.*  *Photo: Wayde Carroll*	**Form:** Tree **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves can be 2”-5” long, are elliptic in shape, most with pointed tips, some with finely toothed margins, and have a glossy upper surface **Size:** 10’-15’ tall, 6’-10’ wide	• Waxy, oily foliage • Accumulates dead leaves and fallen fruit around base • Growth rate varies • Water use classification: Moderate
Coffeeberry *Frangula californica*  *Photo: Calflora 2020 Julie A. Kierstead*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 1”-4” long, elliptic to ovate in shape, leathery, entire to toothed margins, with prominent veins, and are typically evergreen **Size:** 6’-15’ tall, 5’-15’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage around base • Moderate growth rate • Water use classification: Low • Takes pruning well, but avoid hedging

Crape Myrtle *Lagerstroemia indica*  *Photo: CalPhotos n.d. Dr. Nick V. Kurzenko*	**Form:** Tree **Type:** Perennial **Native:** No **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are 1.5”-3” long, round to elliptic in shape, have entire margins, and can be opposite or alternate or whorled **Size:** 15’-25’ tall, 6’-15’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage in canopy and around base; bark peels in early summer • Fast growth rate • Water use classification: Low
Daffodil *Narcissus pseudonarcissus*  *Photo: Calflora 2019 Tomas Zavala*	**Form:** Herbaceous **Type:** Perennial (Bulb) **Native:** No **Foliar Persistence:** Deciduous **Foliar Description:** Four leaves, each 8”-18” in length, flat, and glaucous **Size:** 4”-20” tall, 4” wide	• Waxy foliage • Accumulates dead foliage and flowers; remove dead material once it has yellowed and weakened in early to late spring. • Moderate growth rate, can multiply quickly • Water use classification: Very Low
Deergrass *Muhlenbergia rigens*  *Photo: Calscape 2015 Zoya Akulova*	**Form:** Herbaceous **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaf blades are 4”-19.5” in length and 0.5”-2” wide, flat, truncate, and have ciliate margins **Size:** 4’-5’ tall, 4’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage in and around base; cut back in winter to remove dead plant material • Moderate to fast growth rate • Water use classification: Low • Can be cut annually to reduce fire risk

Douglas-fir *Pseudotsuga menziesii*  *Photo: Calflora 2020 David Krause*	**Form:** Tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 1”-1.5” in length, flat, arranged spirally, and attached singly **Size:** 70’-250’ tall, 15’-25’ width	• Waxy foliage and resinous bark • Accumulates some dead foliage and woody material in canopy and around base; some bark shed • Moderate growth rate • Water use classification: Moderate
Fir *Abies spp.*  *Photo: Wikipedia 2010 Crusier*	**Form:** Tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 1”-3.5” in length, sessile, 2-ranked, often upcurved on upper twigs, generally flat, have longitudinal white bands on the underside of leaves and sometimes on the topside **Size:** 30’-300’ tall, 15’-40’ wide	• Waxy foliage and resinous bark • Accumulates some dead foliage and woody material in canopy and around base; some bark shed • Moderate to fast growth rate • Water use classification: Moderate
Flannelbush *Fremontodendron californicum*  *Photo: Calflora 2020 Raelynn Noel*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 0.5”-3” in length, palmately lobed, with base truncate to shallowly cordate, soft to leathery, and have small stipules **Size:** 6’-20’ tall, 20’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead material around base • Fast growth rate • Water use classification: Very Low • Trichomes covering the leaves can be irritating to eyes and skin

Geranium *Geranium spp.*  *Photo: Calscape 2015 Jean Pawek*	**Form:** Herbaceous **Type:** Annual **Native:** Yes **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are palmately lobed to divided, some are hairy, segments are palmately lobed or toothed, alternately to oppositely arranged, and generally have cordate bases **Size:** 2'-4' tall and wide	• Oily, resinous foliage • Produces aromatic VOC compounds in foliage, plant sparingly • Accumulates dead foliage and flowers • Moderate growth rate • Water use classification: Moderate
Honeysuckle *Lonicera spp.*  *Photo: Calscape 1995 Saint Mary's College of California*	**Form:** Vine, shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous to semi-evergreen **Foliar Description:** Leaves are opposite, simple, and entire; 1-2 pairs beneath inflorescence which are often fused around the stem **Size:** 10'-25' tall, 3'-15' wide	• Waxy foliage • Accumulates dead foliage and flowers • Fast growth rate, spreads • Water use classification: Low
Heavenly Bamboo *Nandina domestica*  *Photo: Calflora 2019 Randy Huey*	**Form:** Shrub **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are alternate, bi- or tri-pinnately compound, 12"-23.5" long, leaflets are 1"-3" long, have an acuminate tip and wedge-shaped base, entire margins, leathery, with varied colors throughout seasons **Size:** 4'-8' tall, 2'-4' wide	• Waxy foliage • Accumulates dead foliage and woody material around base and on plant • Fast growth rate • Water use classification: Moderate to Low • Pruning and thinning can be helpful to maintain an open structure

Incense Cedar *Calocedrus decurrens*  *Photo: Calflora 2018 David Popp*	**Form:** Tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 0.25”-0.75” long, scalelike, blunt tipped, set in opposite, alternating pairs, and are yellowish green in color **Size:** 70’-100’ tall, 20’-35’ wide	• Waxy, oily foliage • Accumulates dead foliage and woody material around the base • Some bark shed on mature trees • Moderate to slow growth rate • Water use classification: Moderate
Iris *Iris spp.*  *Photo: Calflora 2019 Steve Matson*	**Form:** Herbaceous **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are in a 2-ranked basal fan, reduced, often bract-like, without development of distal portion **Size:** 0.5’-4’ tall, 0.5’-2’ wide	• Waxy foliage • Accumulates some dead foliage in and around base • Moderate growth rate • Water use classification: Moderate to Low
Juniper *Juniperus spp.*  *Photo: Calscape 2009 Joe Decruyenaere*	**Form:** Shrub, tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are scalelike, set in whorls of three, yellowish green in color, and have pronounced glands **Size:** 10’-26’ tall, 20’ wide	• Waxy, oily, resinous foliage • Accumulates dead woody material in canopy • Moderate to slow growth rate • Water use classification: Low

Lavender *Lavandula spp.*  *Photo: Calflora 2019 Julian Geoghegan*	**Form:** Shrub **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are narrow, linear, and gray-green in color **Size:** 1.5’-2’ tall and wide	• Oily, resinous foliage • Accumulates dead woody material on the plant; prune in late summer after flowering. Remove any spent flower stalks or dead woody materials. If branch is alive, avoid cutting woody branches, • Moderate growth rate • Water use classification: Low
Lupine *Lupinus spp.*  *Photo: Calflora 2022 Steve Conger*	**Form:** Herbaceous, shrub **Type:** Annual, perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are palmately compound with 3-17 leaflets, entire, are often crowded near the base, and vary in color depending on the species **Size:** 1’-3’ tall, 1’-1.5’ wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage and flowers; remove spent flowers to encourage a second round of blooms in early fall. Cut back perennial plants to the ground as foliage browns in the fall. • Fast growth rate, spreads • Water use classification: Moderate to Low
Pacific Madrone *Arbutus menziesii*  *Photo: Calscape 2011 Neal Kramer*	**Form:** Tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are smaller than five inches in length, ovate to oblong, glabrous, have entire to minutely serrate margins, are white on the underside and bright green on the topside **Size:** 15’-100’ tall, 5’-25’ wide	• Waxy foliage • Accumulates bark on stems and around base, bark peels • Slow growth rate • Water use classification: Low • Can grow in shrub form on harsh sites

Maple *Acer spp.*  *Photo: Calflora 2020 Christopher Brown*	**Form:** Shrub, tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are oppositely arranged, and either simple or compound; simple leaves are palmately lobed and veined **Size:** 30'-115' tall, 65' wide	• Waxy foliage • Accumulates dead foliage and fruit around base • Fast growth rate • Water use classification: High to Moderate
Manzanita *Arctostaphylos spp.*  *Photo: Calflora 2022 R.A. Chasey*	**Form:** Shrub, tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are alternately arranged, simple, generally entire, and leathery **Size:** 10'-12' tall and wide	• Some have waxy or resinous foliage • Accumulates dead woody material and bark in canopy and around base, bark peels • Moderate to slow growth rate • Water use classification: Low to Very Low
Mahonia *Berberis aquifolium* *(formerly Mahonia aquifolium)*  *Photo: Calscape 2009 Barry Breckling*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 3"-9.5" long, pinnately compound with 5-9 leaflets, each 0.5"-2" wide, round to elliptic in shape, can be flat to strongly wavy have serrate margins, and have spines **Size:** 4'-7' tall, 6' wide	• Waxy foliage • Accumulates dead material around the base; prune in spring after flowering to maintain smaller size and plant spreading. • Moderate growth rate, spreads • Water use classification: Moderate • Synonymous with *Mahonia aquifolium*

Marina Madrone *Arbutus 'Marina'*  *Photo: SelecTree n.d. SelecTree*	**Form:** Tree **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are elliptic to oblong in shape, simple, and alternately arranged **Size:** 25'-40' tall, 30' wide	• Waxy foliage • Accumulates fruit and woody material in canopy and around base; accumulates bark on stems and around base, bark peels • Moderate growth rate • Water use classification: Low • Resembles *A. unedo* and is a good garden substitute for *A. menziesii*
Monkeyflower *Diplacus spp. and hybrids*  *Photo: Calflora 2024 Steve Conger*	**Form:** Herbaceous, shrub **Type:** Annual, perennial **Native:** Yes **Foliar Persistence:** Deciduous, evergreen **Foliar Description:** Leaves are generally sessile, glabrous to hairy, and have either toothed or entire margins **Size:** 4'-5' tall, 5' wide	• Resinous foliage • Accumulation of dead plant material depends on species • Moderate growth rate • Water use classification: Low • Once categorized as *Mimulus aurantiacus*, now multiple species in genus *Diplacus*
Oak *Quercus spp.*  *Photo: Calscape 2008 Neal Kramer*	**Form:** Shrub, tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous, evergreen **Foliar Description:** Leaf shape and size are variable; margins can be lobed, entire, serrated, or toothed; leaves are alternately arranged **Size:** 20'-80' tall and wide	• Waxy foliage • Accumulates dead foliage, woody material, and fruit in canopy and around base; some bark shed • Moderate to fast growth rate • Water use classification: Low to Very Low • Some oaks have leaves covered in trichomes that can be irritating to eyes and skin

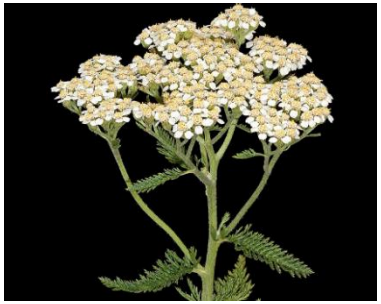
Palm *Phoenix, Syagrus, and Washingtonia spp.*  *Photo: Calflora 2021 Ron Vanderhoff*	**Form:** Tree **Type:** Perennial **Native:** No, except for *Washingtonia filifera* **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 5'-10' in length, sharply toothed at the base, palmately divided nearly to the middle into 40-60 segments, and have many thread-like fibers coming off the margins **Size:** 50'-100' tall, 10'-20' wide	• Waxy foliage • Accumulates dead foliage in canopy and around trunk; requires pruning to remove skirt of dead leaves surrounding trunk • Moderate growth rate • Water use classification: Moderate
Pampas grass *Cortaderia selloana*  *Photo: CAL IPC n.d. Joseph DiTomaso*	**Form:** Grass **Type:** Perennial **Native:** No, INVASIVE **Foliar Persistence:** Evergreen **Foliar Description:** Leaf blades are 1"-3" wide, up to 6' long, sharply toothed, blue-green on the top and dark green on the bottom, with a tuft of short hairs at the base **Size:** 20' tall, 13' wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage in and around base • Fast growth rate, spreads • Water use classification: Low • Produces many seeds that can travel far by wind and agriculture
Pine *Pinus spp.*  *Photo: Calscape 2009 Walter Siegmund*	**Form:** Tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are needles that are 1"-14" long, in sheathed or unsheathed bundles of 1-5 **Size:** 30'-200' tall, 20'-50' wide	• Waxy, resinous foliage • Accumulates some dead foliage and woody material in canopy and around base; some mature pines shed bark • Fast growth rate • Water use classification: Low to Very Low

Plumbago *Plumbago auriculata*  *Photo: Calflora 2020 Stephen Rosenthal*	**Form:** Shrub **Type:** Annual, perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 0.5”-1” wide, 1”-3.5” long, elliptic to oblanceolate, with entire margins **Size:** 6’ tall, 8’-10’ wide	• Does not have waxy, oily, or resinous foliage but its flowers are resinous and sticky • Accumulates dead flowers and foliage in canopy and around base • Fast growth rate • Water use classification: Moderate
Western redbud *Cercis occidentalis*  *Photo: Calscape 2020 Calscape*	**Form:** Shrub, tree **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are 2”-4” in length, cordate to ovate, with entire margins, leathery; leaf color changes with the seasons **Size:** 10’-18’ tall and wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead foliage and woody material around base. Prune in late winter or early spring before new growth begins to remove dead material or crossed branches. • Moderate growth rate • Water use classification: Very Low
Redwood *Sequoia sempervirens*  *Photo: Calscape 2011 John W. Wall*	**Form:** Tree **Type:** Perennial **Native:** Exclusively to CA coast **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are less than an inch long, linear to lance-linear, awl-like, 2-ranked, and alternate **Size:** 50’-350’ tall, 15’-30’ wide	• Waxy foliage • Accumulates dead foliage and woody material in canopy and around base; some bark shed • Fast growth rate • Water use classification: High • Requires ample water and fog

Rosemary *Rosmarinus officinalis*  *Photo: Calflora 2022 Andy Ford*	**Form:** Shrub **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are needle-like, narrow, linear, oppositely arranged, simple, have entire margins, are green on the topside and white-tomentose on the underside **Size:** 1'-6' tall, 2'-5' wide	• Waxy, oily, resinous foliage • Accumulates some woody material in canopy and around base, some bark shed • Moderate growth rate, spreads • Water use classification: Low
Rose *Rosa spp.*  *Photo: Calflora 2018 Ron Vanderhoff*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous, evergreen **Foliar Description:** Leaves are generally odd-pinnately compound, with 5-7 leaflets that are ovate to elliptic, can be hairy or glandular, and have single- or double-toothed margins **Size:** 1'-20' tall, 1'-15' wide	• Does not have waxy, oily, or resinous foliage • Some species accumulate dead plant material • Moderate to fast growth rate, spreads • Water use classification: Low • Can form thickets
Sage *Salvia spp.*  *Photo: Calscape 2010 Calscape*	**Form:** Herbaceous, shrub **Type:** Annual, perennial **Native:** Yes **Foliar Persistence:** Deciduous, evergreen **Foliar Description:** Leaves are generally lanceolate to ovate in shape, with entire or lobed or toothed margins, are simple, oppositely arranged, drought-deciduous, and some are tomentose **Size:** 1'-6' tall, 1'-5' wide	• Oily, resinous foliage • Some species accumulate dead plant material; tender species will die back and go dormant in winter. Cut back once the flowers are spent • Moderate growth rate, spreads • Water use classification: Moderate to Low

Snowberry *Symphoricarpos spp.*  *Photo: Calscape 2015 Margo Bors*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Deciduous **Foliar Description:** Leaves are generally elliptic to round, simple, oppositely arranged, with entire or lobed margins **Size:** 2’-6’ tall and wide	• Does not have waxy, oily, or resinous foliage • Accumulates dead material around the plant; prune in late winter to early spring • Moderate to fast growth rate, spreads • Water use classification: Low
Star Jasmine *Trachelosperum jasminoides*  *Photo: Wikipedia 2005 A. Barra*	**Form:** Vine, shrub **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 3”-6” long, elliptic to ovate-lanceolate, simple, with entire margins, and are oppositely arranged **Size:** 2’ tall, 10’-30’ wide	• Waxy, oily, resinous foliage • Accumulates dead material at the base; prune after flowering to encourage new growth • Fast growth rate • Water use classification: Moderate
Strawberry Tree *Arbutus unedo*  *Photo: SelecTree n.d. SelecTree*	**Form:** Tree **Type:** Perennial **Native:** No **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are oblong in shape, simple, alternately arranged, and dark green. **Size:** 8’-35’ tall, 20’-35’ wide	• Waxy foliage • Accumulates fruit and woody material in canopy and around base; accumulates bark on stems and around base, bark peels • Moderate growth rate • Water use classification: Low • Can be thinned to keep open structure, or planted alongside several others and left unpruned to create a screen

Toyon *Heteromeles arbutifolia*  *Photo: Calflora 2018 Joaquin Hale*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 2”-4” long, elliptic, have finely toothed margins, are alternate, and leathery **Size:** 6’-25’ tall and wide	• Waxy foliage • Accumulates some dead foliage around base • Moderate growth rate • Water use classification: Very Low
Wormwood (Mugwort) *Artemisia spp.*  *Photo: Calscape 2016 Wynn Anderson*	**Form:** Herbaceous **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are generally linear, with entire to lobed margins, and tomentose, hairs glandular **Size:** 1.5’-15’ tall, 2’-10’ wide	• Oily, resinous foliage • Accumulates dead material; can cut back to a few inches off the ground in early spring while leaving live buds. Light pruning can help prevent fast rate of spread • Fast growth rate, spreads • Water use classification: Low
Yucca *Yucca spp.*  *Photo: Calscape 2010 Calscape*	**Form:** Shrub **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are 8”-59” long, linear, thick, rigid, spine-tipped, with entire to dentate margins, and form a rosette from the base **Size:** 15’-30’ tall, 30’ wide	• Waxy foliage • Accumulates dead foliage at the base; requires pruning to remove dead leaves surrounding base of trunk • Moderate growth rate • Water use classification: Low to Very Low

Yarrow *Achillea millefolium*  *Photo: Wikipedia 2019 SAplants*	**Form:** Herbaceous **Type:** Perennial **Native:** Yes **Foliar Persistence:** Evergreen **Foliar Description:** Leaves are less than an inch wide, 1”-3” in length, lanceolate to oblong, tripinnately divided, hairy, and clasping **Size:** 2’-3’ tall, 1.5’ wide	• Oily, resinous foliage • Accumulates dead material; prune in the spring to encourage bushier plants with more flowers or prune after the first bloom to encourage a second round of flowers • Fast growth rate • Water use classification: Low

After The Fire: Drinking Water Contamination & Safety

After a wildfire, local drinking water delivered through system infrastructure can become contaminated, posing health risks to residents who rely on them. Infrastructure damage to pipes, pumps, treatment plants, meters and post-fire runoff can introduce harmful pollutants into both public water systems and groundwater that supplies wells. By understanding how wildfires affect drinking water quality, recognizing signs of contamination, and knowing which necessary actions to take, residents can better protect themselves and their households, ensuring access to safe and reliable drinking water in a post-fire environment.

How Do Wildfires Affect Drinking Water Quality

Wildfires can introduce harmful chemical and microbial contaminants into drinking water sources, damage water infrastructure, and alter the chemical properties of delivered water supply. One major concern is the contamination from hazardous chemicals, specifically, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and carcinogenic substances. VOC contamination frequently occurs due to the heat-induced breakdown of plastic piping materials (Figure 1) such as polyvinyl chloride (PVC) and high-density polyethylene (HDPE). When exposed to extreme heat, plastic pipes can degrade and release VOCs, such as benzene, directly into the drinking water supply.[1,2] For example, following California's 2018 Camp Fire, VOCs were detected in tap water samples from homes nearly a year post-fire, with some concentrations far surpassing established regulatory standards.[3] Additionally, significant drops in water system pressure, often caused by damage to pipes or infrastructure can lead to contaminants entering the water distribution system through compromised connections.[4]



Figure 1: Degraded plastic pipe post- wildfire. *PC: CA State Water Board Division of Drinking Water*

For wildfires in the wildland-urban interface (WUI), not only is contamination from burned infrastructure a concern, but also debris from natural vegetation as well. When wildfires burn the WUI, the combination of burnt and damaged natural vegetation and built structures can introduce suspended solids, heavy metals, and Polycyclic Aromatic Hydrocarbons (PAHs) into nearby bodies of water and reservoirs through runoff. These pollutants often enter waterways through increased erosion and flooding in fire-affected watersheds.[5]

Runoff after fire events, particularly the first rain (first flush), can send ash, debris, vegetation, and other contaminants to downstream watersheds. The influx of contaminants is intensified by increased soil erosion and flooding conditions that commonly occur in post-fire landscapes.[6] Significant contamination can increase demand on local water treatment facilities, hindering their ability to effectively remove contaminants and reliably provide safe drinking water.[7]

Damage at or near the point of use can result in increased risk of contamination, which poses health risks to humans and affects the aesthetic qualities (e.g., taste, odor, and clarity) of water.[8] Wildfires can directly damage critical water infrastructure, including pumps, storage tanks, pipes, and treatment plants. Destruction of these components can disrupt water delivery to residents and create prolonged periods

without reliable access to clean drinking water. Repairing and restoring wildfire-damaged water systems can be costly and time-consuming, often requiring extensive replacement of pipes, infrastructure upgrades, and thorough decontamination procedures to ensure the water is safe again.[9]

What are the Signs and Risks of Contamination?

Common indicators of contamination include changes in the physical properties of drinking water such as unusual taste, odor, or appearance. Cloudy or frothy water or water showing discoloration (e.g., orange, reddish-brown, blue) may indicate the presence of suspended particulates, detergents, or elevated concentrations of metals like iron or copper.[10] Additionally, distinctive odors such as a sulfuric- or turpentine-like smell may suggest contamination by hydrogen sulfide or other organic chemical compounds. Chemical taste in water can often be attributed to VOCs, which are contaminants commonly introduced into drinking water post-fire.[10] It should be noted that **many harmful contaminants cannot be detected through sensory methods alone and additional testing is recommended**.



Figure 2: Contaminated water from a faucet. *PC: CDC Environmental Health Services*

Exposure to common drinking water contaminants post-wildfire, such as benzene, can cause immediate health symptoms including dizziness, vomiting, convulsions, and unconsciousness, in addition to long-term health risks such as increased risk of cancer.[11]

What Steps Can You Take?

Post-fire, appropriate next steps to access safe drinking water depends on whether your water comes from a public or private water system. To find out who your water provider is, visit the California Institute for Water Resources' website (https://ciwr.ucanr.edu/Tools/Drinking_Water/fs2_e/index.cfm).

Post-fire, follow water advisories issued by local or state agencies.[12] Common examples of advisories include:

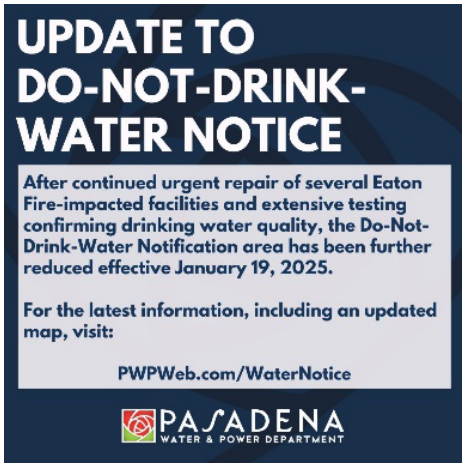


Figure 3: Example of a "Do Not Drink" water advisory. *PC: Pasadena Water & Power*

- **Do Not Drink:** Water should NOT be used for drinking or cooking, even if boiled. Boiling the water does NOT make it safer but poses no additional risk. It can be used for showering and flushing toilets (Figure 3).
- **Do Not Drink and Do Not Boil:** Water should NOT be used for drinking, cooking, or boiling, as boiling may pose inhalation risks. Cold or tepid water can be safely used for flushing toilets and showering.
- **Do Not Use:** Water should NOT be used for any purpose.
- **Boiled Water Notices:** Water should NOT be used for drinking or cooking unless boiled. It may be safely used for showering and flushing toilets.

What To Do If You Rely on A Publicly-Regulated or Private Water System

For California residents whose water is supplied by a local water utility, **the water provider is responsible for implementing testing and treatment procedures after a wildfire**[10]; however, it should be noted that there are no firm standards on when such procedures should be implemented post-fire. Additionally, if contamination occurs, standard treatment and disinfection methods may not adequately remove contaminants to meet California's public health standards.[13] It is recommended you visit your local water provider's website to review current water quality test results. If you experience health symptoms associated with water contaminant exposure (e.g., dizziness, vomiting, etc.), stop using potentially contaminated water sources and seek medical attention.

Residents can also take several proactive measures post-fire to enhance their safety including:

- **Immediately check local water quality notices upon returning home** before assuming tap water is safe.
- **Follow all advisories from your local water provider**. Advisories and instructions for safe water use can be found on their local website or social media platforms.
- **Check with your local water company about potential locations for clean or bottled water distribution** if you are under a water quality advisory.[12]
- **Flush all household fixtures (e.g., pipes, faucets, toilets) to remove residual contaminants from plumbing systems.** The Los Angeles Department of Water & Power website (https://www.ladwp.com/publications/newsletters/articles/guide-flushing-water-pipes) provides detailed instructions on flushing household fixtures.
    - For additional concerns, independent water testing by laboratories accredited by the Environmental Laboratory Accreditation Program (ELAP) is recommended, but can be expensive and results may be difficult to interpret. Accredited laboratories and interpretation resources can be found on the California State Water Resources Control Board website (https://www.waterboards.ca.gov/drinking_water/certlic/labs/).

What To Do If You Rely on a Private Well

For those who rely on private, domestic wells, **ensuring water safety after wildfires is the responsibility of the individual well-owner**. Private well users should independently test and remediate any contamination[10], utilizing the ELAP-accredited labs and interpretation resources mentioned above.

The most common issue affecting wells post-fire is loss of water pressure caused by inoperative pumps due to outages in power supply. To assess this, turn on a faucet. If no or intermittent flow comes from the faucet, this indicates pressure loss. If this occurs, you can prime the pump to recover some pressure if other components are broken. **If pressure loss occurs, do not drink the water until it has been tested, at minimum, for bacterial contamination.** If well components are damaged or constructed from synthetic materials, testing for VOCs and other contaminants is recommended.[14] If water pressure is normal, but water odor or appearance is abnormal, do not use the water. Instead, flush the water lines

until the smell or color returns to normal. Note that normal appearance or odor does not guarantee safety, so testing for bacterial contamination, heavy metals, PAHs and VOCs is strongly recommended before resuming use.[14]



Figure 4: Charred well pump and piping. *PC: Tennessee Department of Health*

If there is visible damage to your well equipment, indoor or outdoor pipes (Figure 4), or well's electrical components, contact a licensed well contractor for repairs and conduct appropriate testing. Additionally, if equipment is damaged, disinfecting and flushing your well is essential. **Well water is not safe to drink during the disinfection process.** You need to plan to have at least a 24-hour supply of safe drinking water before disinfecting your well, generally five gallons per person per day.[15] Disinfection is most effective if performed during low water-use times, such as late at night.[14] For detailed instructions on disinfecting your well, refer to the Centers for Disease Control and Prevention (CDC)'s water emergency website (https://www.cdc.gov/water-emergency/).

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Burn Planning: Interpreting Weather and Writing Prescriptions

Broadcast burning is an effective way to manage vegetation and mitigate wildfire risk on your property. Understanding how weather conditions impact the safety, feasibility, and efficacy of your burn and selecting suitable burn windows are essential elements to conducting successful broadcast burns. One element of a broadcast burn is developing a **prescription**, or a set of specific weather parameters under which you plan to safely and effectively conduct a burn. **This factsheet provides an overview of critical weather parameters that drive fire behavior and provides suggestions for weather-related resources you can consult when developing your burn prescription.** For specific questions about your prescription and interpreting local weather forecasts, please contact your local prescribed burn association, UCCE fire advisor, fire department, or CAL FIRE unit.

When permits are required from your local fire suppression agency, they may require you to develop a written document (or **burn plan**) that provides a description of the burn area, target weather conditions (a prescription), burn unit preparation, crew and equipment resources needed, as well as safety and logistical factors to consider before, during, and after a burn. California Public Code PRC 4423 further specifies that permit requirements can vary between counties, so tailor your burn plan to meet the specific expectations of your jurisdiction. Although written burn plans are not always required, it is best practice to write down and follow the basic elements of a burn plan before ignitions of any planned burn. A well-developed plan not only ensures thorough preparation and safety but also documents your due diligence as a responsible landowner. Additionally, a burn plan is required to take advantage of the gross negligence standard affordfed by SB332 (2021 Dodd) and the Prescribed Fire Claims Fund, with some exceptions for cultural practitioners. Once you develop your burn plan and identify your weather prescription, you can look for **burn windows**, or specific periods (hours, days, weeks) when weather, fuel moisture, and environmental conditions allow for controlled, predictable fire behavior that align with your management objectives.

By developing a prescription and establishing a defined burn window, you can ensure the burn meets management objectives, minimize risks of escape or unintended impacts, and closely monitor forecasts as the target season or date approaches. Monitoring the weather within the burn unit can help you understand microsite conditions, daily weather patterns and can help develop your prescription. Monitoring can also mitigate the potential of having to cancel or postpone your burn at the last minute.

Developing Your Prescription

Broadcast burn prescriptions consider several weather parameters. You need to identify weather ranges for each weather parameter that are expected to meet burn objectives. Weather ranges will vary based on location, crew experience or resource availability, fuel type, and burn objectives. For examples of burn plans and associated prescriptions, vist California's Prescribed Burn Association website (https://calpba.org/). Common weather parameters that often influence fire behavior (Table 1) include:

Temperature: changes in air temperature influence fire behavior. Consider both your burn objectives and vegetation/fuel type to determine the appropriate minimum and maximum air temperatures for your prescription.

Fuel moisture content: the percent water content of your fuel (e.g., live or dead vegetation) when compared with the dry weight of that material. Targets for fuel moisture ranges vary by vegetation/fuel type, desired burn intensity, and management objectives.

Weather Parameter	Influences on Fire Behavior
Temperature	High temperatures contribute to increased fire behavior by drying and preheating fuels.
Fuel moisture content	Impacted by environmental conditions and structure of materials to burn, fuel moisture greatly influences fire behavior. Fuel Moisture can be calculated using charts from the NWCG *Fire Behavior Field Reference Guide* (PMS 437).
Atmospheric stability	During unstable conditions, fire behavior increases, and smoke dispersion improves, while stable conditions limit vertical motion and therefore suppress smoke dispersion and decrease fire behavior. During stable conditions, warmer air can trap cooler air close to the ground, called an **inversion**. Smoke can be trapped close to the ground during inversion conditions.
Probability of ignition (PIG)	High PIG values indicate that fuels are highly receptive to ignition. Conversely, low PIG values suggest that fuels are less likely to ignite, which may result in the fire not carrying well through the intended burn area.
Relative humidity (RH)	High RH generally reduces fire behavior while lower RH values typically increase fire behavior.
Seasonality	High temperatures and low fuel moisture in the summer often make it unsafe to burn. Conversely, low temperatures and high fuel moisture in the winter can inhibit burning altogether.
Wind direction and speed	Winds directly influence fire spread by accelerating the warming and drying of fuels. Light winds can help move fire in your desired direction and dissipate rising heat, which can reduce damage to trees. High winds further increase a fire's rate of spread and flame length. Consistent wind speeds and direction allow fire practitioners to predict fire movement. Additionally, topographic features such as canyons, gorges, saddles, or ravines create avenues for wind to funnel through.

Table 1: List of common weather parameters and how they can influence fire behavior.

Atmospheric stability: is the tendency for the vertical motion of air. When conducting a broadcast burn, slightly unstable conditions are often considered favorable, as it helps lift smoke and has steady winds. However, greater instability causes wind gusts and turbulence, which can lead to unpredictable fire behavior. Atmospheric conditions also change depending on time of day (Figure 1). You may be able to burn during stable conditions, but because smoke-sensitive areas could be negatively affected, you should work closely with your local air district staff.

Probability of ignition (PIG): the likelihood (expressed as a percentage) that a firebrand (i.e., ember or spark) will cause igition when it lands in receptive fuel beds. PIG is influenced and calculated by factors like temperature, relative humidity, and fuel moisture content. It is a useful measure, as it is a single value that takes many weather parameters into consideration. Probability of Ignition and the weather parameters it takes into account can be calculated using charts from the NWCG *Fire Behavior Field Assessment Guide* (PMS 437).

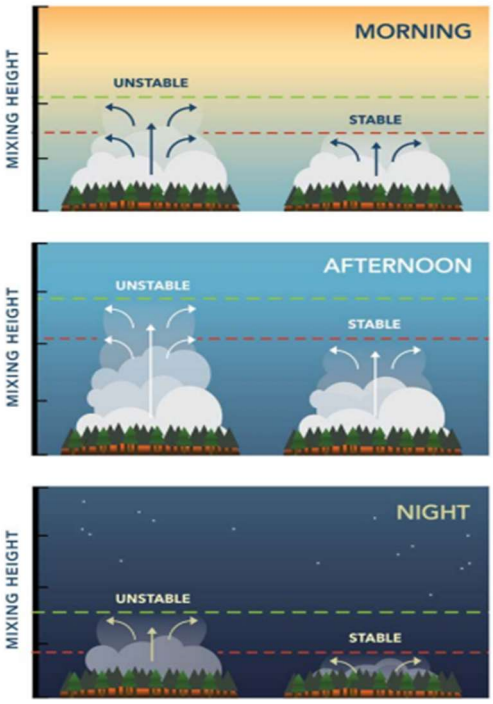


Figure 1: Stable and unstable atmospheric conditions at different times of day and the corresponding changes in mixing height. Diagram credit: Jessica Shaklee.

Relative humidity (RH): the ratio of the amount of water vapor evaporated into the air compared with the maxmium amount possible at that temperature; typically expressed as a percentage. RH ranges required for combustion will vary by vegetation/fuel type. RH typically has a diurnal effect, opposite of temperature: as temperature increases during the day, RH values drop, and then RH slowly increases with cooling temperatures (Figure 2).

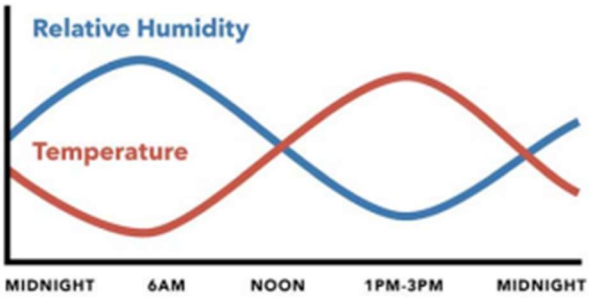


Figure 2: The relationship between relative humidity values and temperature changes throughout the day and night. *Credit: Guidebook for Prescribed Burning*

Seasonality: refers to the recurring changes in weather patterns that occur at different times of the year. In California, fire practitioners often conduct broadcast burns in the spring or fall when weather conditions are moderate. Seasonality may also refer to phases of plant growth and development, and some burn objectives (e.g., invasive species control) will require specific timing that favors and/or disadvantages target species. Knowing your desired management objectives and weather conditions will help you determine when to burn.

Wind direction and speed: wind direction is expressed as the direction it is coming from, while wind speed is how fast the wind is moving expressed in miles per hour. Consider topographic features during your burn planning and be wary of burning on days with highly variable winds forecasted, even if the wind intensity is within your burn prescription. When identifying an optimal burn window, remember to take into account that conditions in your burn unit may differ from local weather predictions. Even a short duration gust of wind outside your prescription can lead to containment issues. Take caution if you are observing wind gusts in your weather forecast outside of your prescription.

When developing a weather prescription, it is strongly advised to work with someone that has burn experience to develop specific weather ranges. It is also advised to tie varying levels of crew/resource requirements listed in your burn plan to “cool”, “target”, and “hot” burn day conditions based on your prescription.

Finding a Burn Window

Finding a burn window involves monitoring weather patterns weeks to days before your burn to ensure there are predictable and consistent weather conditions that match your burn plan. Local knowledge and an on-site Kestrel or Weather Station can help confirm real-time conditions. Additional resources to assist with finding an adequate burn window include:

The **Fire Environment Mapping System (FEMS**; https://fems.fs2c.usda.gov/ui) is an interactive user interface with maps, tables, and charts that display Remote Area Weather Stations (RAWS) data. This website includes archived observations from each RAWS to track weather patterns as well as a 7-day hourly forecast of weather.

The **MesoWest** website (https://mesowest.utah.edu/cgi-bin/droman/mesomap.cgi?state=CA&rawsflag=3) allows you to compare observed forecasts near your burn location (from neaby weather stations, including government- and privately-funded stations) with the day’s hourly weather forecast. You can focus the map to your burn area and manually select the specific weather parameters (e.g., temperature, wind, humidity) you would like to compare and see how the weather models are performing compared with what is actually happening on the ground days before your burn.

The **National Weather Service (NWS)** website (https://www.weather.gov/fire/) provides 7-10-day weather forecasts and seasonal outlooks. NWS provides fire weather planning forecasts for specific locations that include forecasts for windspeed, relative humidity, temperature, and more.

1. For local information, first enter the ZIP Code for your burn location.
2. Use the mapping function to zoom-in and click on the map for the location of your burn.
3. Scroll and select the "Hourly Weather Forecast" option (below the aforementioned map) and you will see a graphical representation of how the weather is forecasted to change hourly. This is useful when paired with MesoWest forecasts days before a burn to see if there are any consistent discrepencies between what is forecasted and what is actually observed on those weather stations.
4. Within ~48 hours of the burn, it is also helpful to view the "Forecast Discussion" page for your location to read NWS staff's interpretations of projected conditions. This is where they discuss their level of confidence, or lack thereof, in the forecast that the weather models have generated.

The **Northern California Geographic Area Coordination Center (ONCC)** website (https://gacc.nifc.gov/oncc/predictive/weather/index.htm) provides a 7-day outlook for fire potential, a smoke forecast, and a fire weather webcast that is updated daily.

The **Prescribed Fire Information Reporting System (PFIRS**; https://ssl.arb.ca.gov/pfirs/index.php) is a tool developed by the California Air Resources Board (CARB) for individuals to view prescribed fire activity both locally and statewide. Both agencies and individuals can report activities using this tool. PFIRS also provides an outlook on the likelihood of permissive burn days three days in advance. This is very helpful in planning so you do not have to cancel a burn last minute due to a non-permissive burn day.

Remote Area Weather Stations (RAWS; https://raws.dri.edu/index.html) are a network of strategically placed weather stations across the U.S. that provide reports of key weather parameters including temperature, wind speed, relative humidity, and, importantly, fuel moisture content. RAWS data can be used to monitor weather trends over time because each station contains several years' worth of archived weather data. You can use this resource to assess historical weather conditions for your region to determine a time of year when conditions may line-up to meet your prescriptions, and to better understand fuel moisture conditions in relation to current weather. If your burn unit is not located near a RAWS, the data may not provide accurate forecasts.

What is a permissive burn day?

The California Air Resources Board specifies each day of the year as a permissive, marginal, or no burn day for each air basin or specified area.

A **permissive burn day** is when broadcast burning will not significantly degrade regional air quality and the local air district approves of burning consistent with local smoke management guidelines and programs.

A **marginal burn day** is when limited amounts of broadcast burning for individual projects in specified areas will not significantly degrade regional air quality and burning is authorized by the air district consistent with smoke management guidelines.

A **no burn day** is when no broadcast burning is allowed due to the likelihood of creating adverse smoke impacts or exacerbating existing air pollution. Exemptions are possible; contact your air district for details.

The **Weather Underground** website (https://www.wunderground.com/) provides local and long-range weather forecasts, weather reports, maps, and current weather conditions for your given location.

The **Windy** mobile app and website (https://windy.app/map/) provides a detailed weather forecast and live wind map. Some features are free and others are subscription-based. First, navigate to the location of your burn, then view the "Forecast for This Location" section. Depending on your subscription level, you can use the "Compare" option to view up to six different weather models. By comparing forecasts, you can gauge your confidence in wind forecasts for your burn.



Figure 3: Belt weather kit
PC: cascadefire.com

Walking around your proposed burn unit days in advance of your intended burn day is recommended as you can gather site-specific information about on-site weather, such as wind patterns throughout the day or on differing slopes. Documenting onsite weather data using a handheld weather instrument, such as a Belt Weather Kit (Figure 3) or a Kestrel (Figure 4), is helpful if you can access those tools, but is not necessary.



Figure 4: Kestrel weather meter
PC: kestrelinstruments.com

Additional Considerations

During the burn, use tools to ensure the weather parameters are within your prescription. You can use many of the aforementioned resources to develop a burn window, however, using handheld tools such as a Kestrel or Belt Weather Kit allow you to immediately obtain weather conditions for your site. Tracking weather patterns during your burn is a crucial task to ensure you stay within your prescription throughout the entire burn. These tools can be purchased online or potentially borrowed from your local Prescribed Burn Association (https://calpba.org/) or cooperative extension office. Be sure to keep records of your weather readings throughout your burn event, as these will be useful documents to show due diligence if a problem occurs. It is common practice to take and record weather prior to ignitions, then hourly during the burn event, and again at the conclusion of the burn. Monitoring during the burn can help identify wind shifts, temperature spikes, or RH levels dipping.

After the burn, continue to monitor the weather until all hotspots and smoke have subsided. It is important to continue using weather tracking resources during this time to ensure safe containment. When observing weather patterns after the burn, be sure to watch out for high wind events, significant wind shifts, low relative humidity, or higher than expected temperatures, as these could increase the risk of re-ignition in the burn unit. In units with heavy fuels, stumps, or dirty piles with potential for long-term smoldering, monitoring may be needed for weeks (and sometimes months) after the burn, especially in the spring when conditions are progressively drying.

Weather is only one component of prescribed fire, but it is the single most important factor in planning broadcast burns. As you establish your burn prescription and burn window, approach the process with both mindfulness and practicality, and consider reaching out to your local PBA, RCD, Fire Safe Council, fire department, or CALFIRE unit for technical assistance.

Authored by **Katie Low**, UC ANR Fire Network Coordinator
Joaquin Pastrana, UC ANR Fire Network Staff Research Associate
Jeff Stackhouse, UCCE Livestock and Natural Resources Advisor

With additional feedback from
Cordi Craig (Placer RCD), **Alison Deak** (UCCE), **Tori Norville** (UCCE), **Lenya Quinn-Davidson** (UCCE), **Barb Satink Wolfson** (UCCE), **Laura Wisdom** (UCCE)

Learn more about the UC ANR Fire Network by visiting our webpage at https://ucanr.edu/sites/fire/

Summary of Publication Examples

Satomi, R., **K. Low**, B.J. Pitton, I. Zahra. 2024. Fire-Smart Landscaping in the Sierra Foothills. https://ucanr.edu/sites/UCCE_Placer_Nevada/files/407444.pdf.

This document demonstrates my ability to work with UCCE Advisors and staff to help residents implement defensible space strategies. Though there are many documents generally discussing defensible space best practices, residents expressed a need for locally-relevant guidance on implementing defensible space principles using commonly found landscaping plants in the region. **My role in preparing this document included researching defensible space best practices and landscaping plant characteristics, drafting and formatting original content, and working with UC ANR academics and staff to revise the document.** This document is well-received and widely distributed and used for reference by local Firewise Communities, Fire Safe Councils, and fire agencies across the Sierra Foothill region. *Note: This document is currently housed on our local UCCE website. I have also uploaded a digital PDF in the event any website updates prevent reviewers from accessing the publication.*

Pastrana, J. and **K. Low**. 2025. After the fire: drinking water contamination and safety. https://ucanr.edu/sites/default/files/2025-07/UCANRFireNetwork_AfterTheFire_WaterContamination_FINAL_1.pdf.

This factsheet demonstrates my ability to work with Fire Network staff, UCCE Advisors, and other UC ANR statewide programs to respond to urgent extension needs post-wildfire. Following the 2025 Los Angeles County wildfires, local UC Master Gardener volunteers asked if we could create materials to help residents recover from wildfire. While I only provide the Drinking Water Contamination and Safety factsheet as an example, I worked with Fire Network staff to co-author three additional After the Fire factsheets focusing on home garden soil management, home garden and fruit tree safety, and backyard chicken and egg safety. Joaquin Pastrana and I equally contributed to the authorship of this factsheet; **my role involved drafting and formatting original content and working with UC ANR academics to revise the document.** These factsheets were distributed by UC Master Gardener Volunteers in southern California as well across the state and country through the Extension Disaster Education Network to help urban and rural communities recover from wildfire. *Note: This document is currently housed on the Fire Network website. I have also uploaded a digital PDF in the event any website updates prevent reviewers from accessing the publication.*

Low, K., J. Pastrana, J. Stackhouse. 2025. Burn planning: interpreting weather and writing prescriptions. https://ucanr.edu/sites/default/files/2025-11/Broadcast_Weather_Conditions_Factsheet_FINAL.pdf.

This document demonstrates my ability to work with Fire Network members to address landowner barriers to implementing prescribed fire treatments. Understanding how weather conditions impact burn operations and selecting suitable burn windows are essential elements to conducting successful broadcast burns. However, these are common knowledge gaps and resource barriers for landowners. **My role in preparing this document included researching weather parameters and their effects on prescribed fires, drafting and formatting content, and working with UC ANR academics to revise the document.** This document is well-received and distributed to landowners and prescribed burn associations. Factsheet contents are also being used to write the Weather Chapter of the Guidebook for Prescribed Burning in California, which will be released in 2026. *This document is currently housed on the Fire Network website. I have also uploaded a digital PDF in the event any website updates prevent reviewers from accessing the publication.*

Supporting Documentation

A. Projects Summary

Project Title	Role	Collaborators
Enhance Forest Ecosystem and Human Community Wildfire Resilience (5)		
UC ANR Fire Network Coordination	Collaborates with Fire Network Director and other key UC ANR advisors, specialists, and staff to establish and grow the Network; organized and hosted in-person and virtual Fire Network events both meant for internal (ANR only) and external audiences; worked with Network Director to author grant reports for funders; networking with other professional agencies and organizations to build Network partnerships; webmaster for Fire Network website; oversees creation and development of Network social media platforms. No associated financial management responsibilities.	Alison Deak - UC ANR Alexandra Sung-Jereczek – UC ANR Barb Satink Wolfson - UC ANR Cleo Woelfle- Hazard – former UC ANR Katie Reidy – UC ANR Kim Ingram – UC ANR Lenya Quinn-Davidson - UC ANR Luca Carmignani – former UC ANR Max Moritz – UC ANR Susie Kocher – UC ANR Tori Norville – UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR David Benterou – UC ANR Joaquin Pastrana – UC ANR
UC ANR Fire Advisor and Staff Team Program Support	Collaborates with and supports the programs of UC ANR Fire Advisors and key staff and specialists; organizes and facilitates regular team meetings; provides team with logistical support; published results of statewide needs assessment with other Fire and Forestry Advisors. Associated financial management responsibilities: helping staff manage financial resources, securing grant funding to pay for staff activities.	Alison Deak - UC ANR Alexandra Sung-Jereczek – UC ANR Barb Satink Wolfson - UC ANR Cleo Woelfle- Hazard – former UC ANR Katie Reidy – UC ANR Kim Ingram – UC ANR Lenya Quinn-Davidson - UC ANR Luca Carmignani – former UC ANR Max Moritz – UC ANR Susie Kocher – UC ANR Tori Norville – UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR David Benterou – UC ANR Joaquin Pastrana – UC ANR Ryan Tompkins - former UC ANR

Community Fire Adaptation and Fire Ecology Training for UC Master Gardeners	Project manager working with UC Master Gardeners Statewide Program to create fire-related training materials for volunteers; working with advisors to develop 3 trainings about built environment fire preparedness and 8 regional fire ecology trainings; hosted 2 live training sessions to test training materials; presented training materials to volunteers. No associated financial management responsibilities.	Alison Deak - UC ANR Barb Satink Wolfson - UC ANR Lenya Quinn-Davidson - UC ANR Tori Norville – UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR David Benterou – UC ANR Joaquin Pastrana – UC ANR Missy Gable – UC ANR Lauren Snowden – UC ANR
Wildfire Preparedness Workshops for Small Private Landowners	Organized and facilitated wildfire preparedness workshops around prescribed fire, pile burning, home hardening, and defensible space for small private landowners both statewide and locally in Placer and Nevada Counties; collaborated with regional UC ANR advisors and local agencies to deliver workshops. No associated financial management responsibilities.	Alison Deak - UC ANR Barb Satink Wolfson - UC ANR Lenya Quinn-Davidson - UC ANR Tori Norville – UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR Joaquin Pastrana – UC ANR Dan Macon – UC ANR Susie Kocher – UC ANR Ricky Satomi – UC ANR Bruno Pitton – UC ANR Kevin Marini – UC ANR CAL FIRE Nevada-Yuba-Placer Unit City of Auburn Fire Department Foresthill/Iowa Hill Fire Safe Council Foresthill Fire Protection District Greater Auburn Fire Safe Council Nevada Resource Conservation District Nevada County Fire Safe Council Nevada City Office of Emergency Services North Auburn/Ophir Fire Safe Council Northern Sierra Air Quality Management District Placer County Air Pollution Control District Placer County Office of Emergency Services Placer County Sheriff's Office

		Placer Resource Conservation District Placer/Sierra Fire Safe Council Sierra Foothill Research and Extension Center Smartsville Fire Department
Efficacy and commercial viability of targeted grazing for fuels reduction	Project collaborator; co-developed novel field monitoring protocols to 1) assess impacts of small ruminant grazing on forest understory plants biomass, 2) assess nutritional quality of forage in mixed-conifer forest ecosystems, 3) assess impacts of grazing treatments on residual fuel moisture in woody shrubs; led seasonal field crews to collect data; analyzed data; applied for and received additional project funding; presented preliminary findings at conferences, professional meetings, and field tours. No associated financial management responsibilities.	Dan Macon – UC ANR Ricky Satomi – UC ANR Dr. Roselle Busch – UC ANR/UC Davis Tracy Schohr – UC ANR Ariel Roughton – Berkeley Forests Nathan Medlar – NM Ranch Rhianna Dutra – California State University, Chico
Fire and Forestry Workforce Development (1)		
Forestry and Natural Resources Career Mentorship Program	2023-2024 Program Year Chair; 2024-2025 Steering Committee Member (non-voting); organized and facilitated Program trainings and events; helped manage annual programming; sought out funding opportunities.	Ricky Satomi – UC ANR Allison Erny – Mason, Bruce, and Girard Christie Pollet-Young – SCS Global Services Corrina Munger – UC Berkeley Joe King – Sierra Pacific Industries Cole Humphrey – California Licensed Foresters Association Mary Mayeda – Natural Resources Conservation Service Renaldo Arroyo – Bakersfield College Liana Vitousek – Placer Resource Conservation District

B. Professional Competence and Professional Activity

a). Professional Development and Training

Start and End Date	Location	Name, Description, and Occurrence of Activity

11/1/23 – Present	Virtual	Participating in weekly Registered Professional Forester Exam preparation courses hosted by the California Licensed Forester's Association. Courses are 2 hours long and cover a wide range of forestry and resource management topics.
11/9/23	Virtual webinar	Attended "Tools in the Toolbox" webinar hosted by the University of Nevada Reno Fire Extension Program. This webinar covered all the different fuel reduction strategies landowners can use to reduce fire risk.
11/20/23 – 11/21/23	Virtual training	Participated in "Being an Ally in Indian Country" training, which equips fire professionals with the professional tools to communicate and collaborate with tribal partners on fire-related projects.
12/14/24	Auburn, CA	Participated in Rancher's Fire Academy session: Benefits of Prescribed Fire for Rangeland Improvement.
1/4/24	Auburn, CA	Participated in Rancher's Fire Academy session: Prescribed Fire Regulatory and Permitting Issues Workshop.
1/6/24	Grass Valley, CA	Participated in Rancher's Fire Academy: Prescribed Fire Planning and Site Preparation Field Day.
2/8/24	Auburn, CA	Participated in Rancher's Fire Academy session: Fire Behavior and Fire Safety.
2/20/24	Virtual	Participated in workshop about acknowledging unconscious bias in forestry and natural resources.
3/7/24	Auburn, CA	Participated in Rancher's Fire Academy session: Planning Your Prescribed Fire
11/26/24	Auburn, CA	Participated in an introduction to GIS training hosted by Forestry Advisor, Ricky Satomi.
3/4/25	Virtual	Participated in the California Board of Forestry and Fire Protection's public meeting on Zone Zero.
3/11/25	Virtual	Attended "Lessons Learned from LA" webinar hosted by the California Fire Science Consortium.
3/12/25	Virtual	Participated in Healing Generational Trauma: Impact of Trauma on Health webinar hosted by the Black and Allied Employee Resource Group.
3/13/25	Virtual	Participated in a Cultural Humility Training hosted by the Forestry and Natural Resources Career Mentorship Program.

4/23/25	Virtual	Participated in Getting Personal: Personal and Family Healing webinar hosted by the Black and Allied Employee Resource Group.
5/1/25	Davis, CA	Participated in UC ANR Media Training hosted by UC ANR Strategic Communications.
6/11/25	Lotus, CA	Participated in Wilderness First Aid training hosted by Sierra Rescue.

b). Disciplinary Society or Professional Association

Name of Professional Association	Leadership and Participation
Association of Fire Ecology (International)	Member; Co-Chair for Mentoring Futures Program, participated as Professional Mentor in Mentoring Futures Program
Association of Natural Resource Extension Professionals (National)	Member; member of National Extension Wildland Fire Initiative; Planning committee member for National Cooperative Extension Fire Peer-Learning Exchange in Wawona, CA
California Licensed Foresters Association (Statewide)	Associate Member (non-licensed)

c). Evidence of Professional Competence

Start and End Date	Location	Name, Description and Occurrence of Professional Presentation, Office or Activity
9/1/22 – Present	Virtual and in-person	UC ANR Fire Workgroup Member. Now a member of the Fire Program Team.
9/1/22 – Present	Virtual and in-person	UC ANR Forest Ecosystems and Communities Workgroup Member. Now a member of the Forestry Program Team.
4/24/23 – Present	Virtual	UC ANR Native American Community Partnerships Workgroup Member. Now a member of the Native American Community Partnerships Program Team.
4/24/23 – 9/30/25	Virtual	UC ANR Disaster Workgroup Member. This workgroup does not currently operate under updated Program Team structure.
4/24/23 – Present	Virtual	UC ANR People of Color Employee Resource Group Member
12/7/23	Monterrey, CA	Shaded Fuel Breaks Create Wildfire Resilient Forest Stands presentation at Association of Fire Ecology Conference. Presented to 70 people.

11/19/24-11/20/24	Davis, CA	Attended the Forestry and Range Program Teams Meeting in Davis, CA.
11/25/24-4/16/25	Virtual	CAL FIRE FRAP Forest Health Research Program Grant Reviewer (Concept proposal (n = 14) and full proposal (n = 5); overall reviews took roughly 22 hours to complete.
12/1/24-4/17/25	Virtual	Planning committee member for National Cooperative Extension Fire Peer-Learning Exchange in Wawona, CA.
1/22/25 – Present	Virtual	Lead author on the Weather chapter for the Prescribed Fire Guidebook for California. This is a peer-reviewed extension publication intended to help California's small private landowners learn how to implement safe, legal broadcast burns on their property. As lead author I am responsible for original writing, review and editing existing content, recruiting reviewers, and creating original figures for the manuscript.
1/22/25 – Present	Virtual	Co-lead author on the Fuels chapter for the Prescribed Fire Guidebook for California. This is a peer-reviewed extension publication intended to help California's small private landowners learn how to implement safe, legal broadcast burns on their property. As co-lead author I am responsible for review and editing existing content, recruiting reviewers, and creating original figures for the manuscript.
3/24/25-3/25/25	Sacramento, CA	Attended and presented, and tabled for UC ANR at the California Forest Science Symposium. I also moderated the Workforce Development section.
4/2/25	Virtual	Presented about careers in fire ecology to 70 first graders and kindergarteners at Creekside Elementary School in Danville, CA.
4/15/25-4/17/25	Wawona, CA	Presented at and attended the National Cooperative Extension Fire Peer-Learning Exchange in Wawona, CA. I co-lead three sessions on home hardening education, farm and ranch wildfire preparedness, and hosting a pile burn workshop.
5/13/25-8/26/25	Nevada County	Helping plan the Yuba-Nevada Forest Stewardship workshop cohort.

C. University Service

Start and End Date	Name, Description and Occurrence of Activity	Org Level	Your Contribution and Leadership Role
3/1/23-9/30/25	As UCCE Placer and Nevada Counties Office Safety Coordinator, I updated	County	Safety Coordinator

	and maintained all office safety-related documents, training records, and developed and delivered safety trainings to office staff at quarterly office conferences.		
11/20/23	Authored program summary for 2023 UCCE Placer/Nevada Annual Report	County	Contributing author
2/1/24 – 5/31/24	UC ANR Fire Network SRA II Mariposa/Hollister Search Committee.	Division	Hiring committee member
2/1/24 – 6/30/24	UC ANR Fire Network SRA II Sonoma Search Committee	Division	Hiring committee member
4/9/24	Presented to over 50 Butte County Master Gardeners in Chico, CA about home hardening and defensible space with Ricky Satomi.	County	Presenter
6/1/24 – 9/30/24	UCCE Placer/Nevada, Plumas/Sierra County Director Search Committee	County	Hiring committee member
6/25//24	UCOP Bonnie Reiss Climate Neutrality Initiative Fellows Program Career Panel	University	Panelist
8/23/24	UC ANR Fire Network and UCCE Forest Stewardship tour of French Meadows Project. This was a tour for UC ANR academics and staff only.	Division	Organizer and participant
11/13/24	Tabled for the Fire Network at the UC ANR Administrative Orientation	University	Tabling
11/20/24	Presented about the Fire Network and led the Fire Workgroup meeting at the Forestry and Range Program Teams meeting	Division	Presenter, facilitator
11/20/24	Authored program summary for 2024 UCCE Placer/Nevada Annual Report	County	Contributing author
12/1/24-2/1/25	Fire Network SRA2 – Nevada County Hiring Committee	Division	Hiring Committee Chair
2/11/25-2/12/25	Tabled for UC ANR's Fire and Forestry programs at Cal Forests Forest Science Innovations Conference in Sacramento. Also participated in Cal Forests' student networking reception event. UC ANR	University	Tabled, volunteer

	was an educational sponsor for the conference.		
3/24/25-3/25/25	Tabled for UC ANR's Fire and Forestry programs at the California Forest Science Symposium in Sacramento.	Division	Tabled
4/1/25-5/15/25	Helped organize UCCE Placer and Nevada Counties office Employee Engagement Day at Blodgett Forest Research Station. I also presented on my research during a field tour for this event.	County	Organizer, speaker, participant
4/9/25	Panelist for "Building for success: jump starting your program, and how academic success looks like in your early to mid-careers" event at UC ANR Programmatic Orientation.	University	Panelist
4/22/25	Tabled for the Fire Network at the UC ANR Administrative Orientation	University	Tabled
5/21/25-9/30/25	UCCE Oak Specialist Hiring Committee	University	Hiring committee member
6/10/25	Presented about Placer County programming before the Placer County Board of Supervisors with other regional UCCE office academics.	County	Presenter
7/14/25 – Present	Academic Coordinator Committee member; Chair-elect starting spring 2026.	University	Committee Chair-elect

D. Public Service

Start and End Date	Name, Description and Occurrence of Activity	Org Level	Your Contribution and Leadership Role
10/17/22-12/31/23	Advised the Forestry and Fire Recruitment Program on the development and completion of their Living with Fire Design Challenge Project, "Reimaging Forestry & Fire Career Pathways for Justice-Impacted People in the Bay Area, California." Participated in monthly team meetings and facilitated connections between project team members and industry professionals.	Region	Community Advisor

10/24/22-Present	UCCE representative for the Placer County Prescribed Burn Association. Participates in quarterly meetings, represents UCCE at events and workshops, and generates educational content for newsletter.	County	Advisory Committee Member
3/16/23-Present	UCCE representative for Placer County's Fire Safe Alliance, a county-wide interagency team aimed at providing residents with fire-related education and outreach materials. Participates in quarterly meetings and generates educational content for newsletter.	County	Agency Partner
8/7/23-5/1/25	Participated in monthly meetings with student mentee for Mentoring Futures Program.	State	Professional Mentor
12/1/24-Present	UCCE representative at Placer County Natural Resources Partners Forum – an interagency group focused on collaborating on projects related to natural resources management in Placer County.	County	Agency Partner
7/10/25 – Present	Invited to be a voting member for the Placer County Hazard Mitigation Plan 2026 Update. Attends bimonthly meetings to develop the Hazard Mitigation Plan and does outreach to local clientele on behalf of this initiative.	County	Voting Committee Member

E. Extension Activities and Coordination of Academic Program Activities

*During this review period, Academic Coordinators were encouraged to report their program activities using the new **optional** Coordination of Academic Programs table structure. Here I present my programming using both the Coordination of Academic Programs and Extension Activities tables.*

Coordination of Academic Programs

a). Academic Program Planning and Development

Start and End Date	Name, Description and Occurrence of Activity	Collaborators	Your Contribution and Leadership Role	Attendees
Enhance Forest Ecosystem and Human Community Wildfire Resilience (27)				
9/1/22 - Present	Organizes and facilitates bi-monthly meetings with UC ANR Fire Advisor team to discuss ongoing collaborations and	Alison Deak - UC ANR Alexandra Sung-Jereczek – UC ANR	Organizing meetings, facilitating calls	NA

	develop projects across California.	Barb Satink Wolfson - UC ANR Cleo Woelfle- Hazard – former UC ANR Katie Reidy – UC ANR Kim Ingram – UC ANR Lenya Quinn-Davidson - UC ANR Luca Carmignani – former former UC ANR Max Moritz – UC ANR Susie Kocher – UC ANR Tori Norville – UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR David Benterou – UC ANR Joaquin Pastrana – UC ANR		
11/16/23-11/17/23	Fire Network Fall Retreat at Blodgett Forest Research Station: hosted statewide team of UCCE advisors and specialists. Conducted team building activities and strategic planning exercises.	Lenya Quinn-Davidson – UC ANR	Organized retreat, led in-person activities	30
11/17/23	UC ANR Fire Network Legislative Tour at Blodgett Forest Research Station: co-organized and hosted legislative tour with UC ANR Government and	Lenya Quinn-Davidson – UC ANR Sheron Violini – UC ANR Anne Megaro – UC ANR	Organized tour, presented research at one stop	25

	Community Relations Team.			
11/27/2023	November Fire Break: Degradation and Restoration of Indigenous California black oak. Webinar.	Lenya Quinn-Davidson – UC ANR Alexis Bernal – UC Berkeley Scott Stephens – UC Berkeley Les Hall – Mountain Maidu Tribe	Organizer, facilitator	20
12/18/23	December Fire Break: Jeff Stackhouse. Webinar.	Jeff Stackhouse – UC ANR Lenya Quinn-Davidson – UC ANR	Organizer, facilitator	20
2/12/24	February Fire Break: Alison Deak and Luca Carmignani. Webinar.	Alison Deak – UC ANR Luca Carmignani – UC ANR	Organizer, facilitator	15
3/25/24	March Fire Break: Ryan Tompkins and Derek Young. Webinar.	Lenya Quinn-Davidson – UC ANR Ryan Tompkins – UC ANR Derek Young – UC Davis	Organizer, facilitator	25
4/5/24	April Fire Break: Cleo Woelfle Hazard. Webinar.	Cleo Woelfle Hazard – UC ANR Lenya Quinn-Davidson – UC ANR	Organizer, facilitator	17
5/20/24	May Fire Break: Tracy Schohr and Dr. Lais Costa. Webinar.	Lenya Quinn-Davidson – UC ANR Tracy Schohr – UC ANR Lais R.R. Costa – UC Davis School of Veterinary Medicine	Organizer, facilitator	15
5/1/24	Ranch Hardening and Wildfire Preparedness Strategies for Agricultural Structures Webinar.	Luca Carmignani – UC ANR Yana Valachovic – UC ANR	Organizer, facilitator	98

5/28/24	The Realities of Managing Livestock Health During Wildfire Webinar.	Dan Macon – UC ANR Grace Woodmansee – UC ANR Tracy Schohr – UC ANR Amanda Stasiewicz – University of Oregon Amanda Rainey – US Forest Service Holly Robertson - Rancher	Organizer, facilitator	93
5/29/24	Hot Topics in Fire Science and Stewardship Webinar: Restoring Fire to Meadows and Other Cultural Landscapes	Barb Satink Wolfson – UC ANR Cleo Woelfle Hazard – UC ANR Alice Lincoln Cook – California Indian Basketweavers Association Brian Peterson – Fire Forward	Organizer, facilitator	92
6/5/24	Hot Topics in Fire Science and Stewardship Webinar: How Can We Assess Plant Flammability	Luca Carmignani – UC ANR Max Moritz – UC ANR Jane Cawson – University of Melbourne	Organizer, facilitator	88
6/12/24	Hot Topics in Fire Science and Stewardship Webinar: Nuances in Fire History and Management: Lessons From Oregon	Alison Deak – UC ANR Yana Valachovic – UC ANR Andrew Merschel – US Forest Service Pacific Northwest Research Station Chris Dunn – Oregon State Univeristy	Organizer, facilitator	78
7/17/24	Hot Topics in Fire Science and Stewardship Webinar:	Tori Norville – UC ANR	Organizer, facilitator	108

	Forestry and Fuel Profiles	Eric Knapp – US Forest Service Don Radcliffe – University of Washington		
7/22/24	July Fire Break: Kristen Shive. Webinar.	Kristen Shive – UC ANR Cleo Woelfle Hazard – UC ANR	Organizer, facilitator	17
9/4/24	Smoke Readiness Webinar	Alison Deak – UC ANR Cleo Woelfle Hazard – UC ANR Eric Sergienko – Sacramento County Tanya Garcia – Cal Poly Humboldt Amy MacPherson – California Air Resources Board	Organizer, facilitator	64
10/28/24	October Fire Break: Dr. Safeeq Khan. Webinar.	Dr. Safeeq Khan – UC Merced	Organizer, facilitator	25
12/9/24	December Fire Break: Doralicia Garay. Webinar.	Doralicia Garay – UC ANR	Organizer, facilitator	18
4/18/25	Wildfire Preparedness Strategies for Farmers and Ranchers presentation at California Farm Bureau's "Grow in the Know" meeting. Webinar.	Yana Valachovic – UC ANR Tracy Schohr – UC ANR Rosie Busch – UC ANR Corrin Armstrong – CA Farm Bureau	Organizer, facilitator	27
4/28/25	April Fire Break: Pam Kan-Rice and Mike Hsu. Webinar.	Pam Kan-Rice – UC ANR Mike Hsu – UC ANR	Organizer, facilitator	9
5/1/25 – Present	Working with UC Master Gardeners Statewide Program to	Alison Deak - UC ANR	Project manager, content expert, presenter	NA

	create fire-related training materials for volunteers. As the Project Manager, I am responsible for developing and helping deliver 3 trainings about built environment fire preparedness and 8 regional fire ecology trainings.	Barb Satink Wolfson - UC ANR Lenya Quinn-Davidson - UC ANR Tori Norville – UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR David Benterou – UC ANR Joaquin Pastrana – UC ANR Missy Gable – UC ANR Lauren Snowden – UC ANR		
5/5/25	Fire Safe Solutions for Design, Building, and Upkeep Webinar	Yana Valachovic – UC ANR Tori Norville – UC ANR	Organizer, facilitator	501
5/22/25	Defensible Space Landscaping Webinar	Tori Norville – UC ANR Yana Valachovic – UC ANR Bruno Pitton – UC ANR	Facilitator	310
6/2/25	June Fire Break: Daylin Wade and Susie Kocher. Webinar.	Daylin Wade – UC ANR Susie Kocher – UC ANR	Organizer, facilitator	13
7/1/25	Disaster Preparation for Farms and Ranches Webinar.	Dan Macon – UC ANR	Organizer, facilitator	53
8/26/25-9/4/25	Co-hosted two virtual Community Fire Adaptation and Fire Ecology Training for UC Master Gardeners. We reached 932 Master Gardener volunteers	Alison Deak - UC ANR Alexandra Sung-Jereczek – UC ANR Barb Satink Wolfson - UC ANR	Organizer, facilitator, presenter	932

	across the state in two sessions.	Lenya Quinn-Davidson - UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR David Benterou – UC ANR Joaquin Pastrana – UC ANR Missy Gable – UC ANR Lauren Snowden – UC ANR		

b). Assessment of Program and Constituency Needs

Start and End Date	Name, Description and Occurrence of Activity	Your Contribution and Leadership Role
2/1/24 – 9/19/25	Published results of statewide needs assessment in the Journal of Extension. My formal needs assessment survey was in collaboration with four other new Fire and Forest Advisors and ran from January 1, 2023 – May 31, 2023.	Co-author

c). Evaluation of Academic Program Activities and Functions

Start and End Date	Name, Description and Occurrence of Activity	Collaborators	Your Contribution and Leadership Role
Enhance Forest Ecosystem and Human Community Wildfire Resilience (5)			
10/1/23-9/30/25	During this review period, I evaluated all participants who attended the workshops and webinars I helped host or facilitate.	Alison Deak - UC ANR Alexandra Sung-Jereczek – UC ANR Barb Satink Wolfson - UC ANR Lenya Quinn-Davidson - UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR	Co-author

		David Benterou – UC ANR Joaquin Pastrana – UC ANR Bruno Pitton – UC ANR Ricky Satomi – UC ANR Dan Macon – UC ANR Tracy Schohr – UC ANR Kristen Shive – UC ANR	
10/1/23 – 2/20/25	Creating and refining Fire Network logic models for our 4 key programmatic areas.	Alison Deak - UC ANR Alexandra Sung-Jereczek – UC ANR Barb Satink Wolfson - UC ANR Lenya Quinn-Davidson - UC ANR Yana Valachovic – UC ANR Bella Zahra – UC ANR David Benterou – UC ANR Joaquin Pastrana – UC ANR Bruno Pitton – UC ANR Ricky Satomi – UC ANR Dan Macon – UC ANR Tracy Schohr – UC ANR Kristen Shive – UC ANR Kit Alviz – UCOP Katherine Webb-Martinez – UCOP Jennifer Sedell – UCOP	Project lead
9/1/24-4/1/25	Worked with Fire Network Director and others to create standardized Fire Network event evaluation questions to try and determine statewide impacts.	Alison Deak - UC ANR Barb Satink Wolfson - UC ANR Lenya Quinn-Davidson - UC ANR Yana Valachovic – UC ANR	Project lead
8/15/25-9/15/25	Surveyed core Fire Network members to determine efficacy and impacts of Statewide Coordinator position.	Lenya Quinn-Davidson - UC ANR Michele Fisch – UC ANR	Project lead

12/1/24 – Present	Created and maintaining the Placer County Firewise Community Volunteer Hour Reporting Tool in collaboration with Placer County Office of Emergency Services. This survey tool helps Firewise Communities with their annual reporting requirements, but also lets us determine the local impact of UCCE programs.	Joaquin Pastrana – UC ANR Nicole Dutch – UC ANR Jacqui Manning – Placer County OES	Project lead
Fire and Forestry Workforce Development (5)			
1/1/24 – 2/1/24	Forestry and Natural Resources Career Mentorship Program 2023-2024 Program Year Mid-Year Survey	Ricky Satomi – UC ANR Allison Erny – Mason, Bruce, and Girard	Project lead
5/1/24-6/1/24	Forestry and Natural Resources Career Mentorship Program 2023-2024 Program Year End-Of-Year Survey	Ricky Satomi – UC ANR Allison Erny – Mason, Bruce, and Girard	Project lead
1/1/25 – 2/1/25	Forestry and Natural Resources Career Mentorship Program 2024-2025 Program Year Mid-Year Survey	Ricky Satomi – UC ANR Allison Erny – Mason, Bruce, and Girard Christie Pollet-Young – SCS Global Services Renaldo Arroyo – Bakersfield College Liana Vitousek – Placer Resource Conservation District	Project collaborator
5/1/25-6/1/25	Forestry and Natural Resources Career Mentorship Program 2024-2025 Program Year End-Of-Year Survey	Ricky Satomi – UC ANR Allison Erny – Mason, Bruce, and Girard Christie Pollet-Young – SCS Global Services Renaldo Arroyo – Bakersfield College Liana Vitousek – Placer Resource Conservation District	Project collaborator

4/1/25-6/1/25	Forestry and Natural Resources Career Mentorship Program Cumulative Impacts Survey	Ricky Satomi – UC ANR Allison Erny – Mason, Bruce, and Girard Christie Pollet-Young – SCS Global Services Renaldo Arroyo – Bakersfield College Liana Vitousek – Placer Resource Conservation District	Project collaborator

d). Development of Extramural Funding of Campus Programs and Identification of Support Resources

Project Title	Role	Collaborators	Support Amount/Duration	Support Source
Enhance Forest Ecosystem and Human Community Wildfire Resilience (4)				
Silvopastoral Management in Post-Fire Reforestation	Project collaborator – *because I do not have PI status, I am not officially listed on the project, but I contributed significantly to the proposal. Not listed in GTS.*	Ricky Satomi – UC ANR Dan Macon – UC ANR Tracy Schohr – UC ANR Rosie Busch – UC ANR Rob York – UC ANR	$74,995.00 from 4/1/2024-3/31/2027	Western Sustainable Agriculture Research and Education (WSARE)
Silvopastoral Management in Post-Fire Reforestation	Project collaborator – *because I do not have PI status, I am not officially listed on the project, but I contributed significantly to the proposal. Not listed in GTS.*	Ricky Satomi – UC ANR Dan Macon – UC ANR Tracy Schohr – UC ANR Rosie Busch – UC ANR Rob York – UC ANR	$99,891.25 from 6/1/2025-12/31/2028	CAL FIRE
Fire Resilient Education and Workforce Development Program	Project collaborator - *I contributed to the original proposal. Listed in GTS.*	Yana Valachovic – UC ANR Lenya Quinn-Davidson – UC ANR	$1,379,729.00 from 6/18/2025 – 7/31/2028	CAL FIRE

UC ANR Fire Network	Proposal contributor – *because UC ANR was submitting the award application on our behalf, I helped craft the language in the application. Not listed in GTS.*	Lenya Quinn-Davidson – UC ANR Brent Hales – UC ANR Jennifer Sedell - UCOP	$500 award – did not receive	Western Extension Directors Association (WEDA)

e). Liaison Representation with Other Agencies and Institutions in the Public and Private Sectors

Start and End Date	Meeting Name and Type	Role	Collaborators	Location(s)	Attendees
Enhance Forest Ecosystem and Human Community Wildfire Resilience (7)					
4/8/24	Introduction to Fire Network Presentation at Placer County Agricultural Commission	Presenter	Bruno Pitton – UC ANR Dan Macon – UC ANR Matt Rodriguez – UC ANR	Auburn, CA	20
9/17/24	Introduction to UC ANR Fire Network Presentation at California Fire Science Consortium Annual Meeting	Presenter	Lenya Quinn-Davidson – UC ANR Autym Shafer – CFSC Katanja Waldner - CFSC	Berkeley, CA	15
2/26/25	Placer County Fish and Game Commission Meeting – Introduction to the Fire Network	Presenter	Darryl Mitani – Placer County Ag Department Marie Malloy – UC ANR	Auburn, CA	16
2/26/25	California Congressional Republican District Directors	Presenter	Lenya Quinn-Davidson – UC ANR Tom Collins - California Congressional Republican District Directors	Virtual	20

	Meeting – Introduction to the Fire Network				
6/20/25	Invited to participate with Yana Valachovic at California State Assemblywoman Diane Dixon's Wildfire Preparedness Town Hall in Laguna Beach, CA.	Organizer	Yana Valachovic – UC ANR Diane Dixon – California State Assembly Cooper Strull – Diane Dixon's office	Laguna Beach, CA	35
8/26/25	Introduction to the UC ANR Fire Network presentation for UCCE Forest Stewardship Nevada-Yuba Cohort	Presenter	Kim Ingram – UC ANR Ricky Satomi – UC ANR	Virtual	15
9/3/25	Introduction to the UC ANR Fire Network presentation for California Air Pollution Control Officers Association	Presenter	Julie Hunter – Northern Sierra AQMD	Virtual	40

f). Supervision and Leadership of other Academic Appointees and Staff

Start and End Date	Meeting Name and Type	Role	Collaborators	Location(s)
Enhance Forest Ecosystem and Human Community Wildfire Resilience (9)				
8/1/24 – 6/30/25	Monthly supervisor check-in meetings with Isabella Zahra (Sonoma SRA II)	Supervisor, meeting facilitator	Isabella Zahra – UC ANR	Virtual
7/1/25 - Present	Bi-monthly supervisor check-in meetings with Isabella Zahra (Sonoma SRA II)	Supervisor, meeting facilitator	Isabella Zahra – UC ANR	Virtual

9/1/25 – Present	Training and supervising Joaquin Pastrana on relevant field research and monitoring protocols for various fire-related projects. Oversees Pastrana's field schedule and mentors him in the field.	Project supervisor	Ricky Satomi – UC ANR Dan Macon – UC ANR Tracy Schohr – UC ANR Rosie Busch – UC ANR Rob York – UC ANR	Placer, Nevada, and El Dorado Counties
9/1/24 - Present	Bi-monthly supervisor check-in meetings with Joaquin Pastrana (Nevada SRA II)	Supervisor, meeting facilitator	Joaquin Pastrana – UC ANR	Virtual
10/1/24 – Present	Overseeing Isabella Zahra's creation and management of all Fire Network social media platforms (BlueSky, Facebook, Instagram, LinkedIn, X, YouTube). Works with Zahra, Doralicia Garay, and others to create social media content.	Supervisor, content creator	Isabella Zahra – UC ANR Doralicia Garay – UC ANR	Virtual
1/1/25 – Present	Supervising and mentoring Joaquin Pastrana to table for the UC ANR Fire Network at community events and professional meetings. So far, he has attended over 5 meetings by himself.	Supervisor, mentor	Joaquin Pastrana – UC ANR	Placer and Nevada Counties
2/1/25 – Present	Fire and forest ecology scientific literature review: helping Joaquin Pastrana develop critical technical expertise by systematically assigning and reviewing important papers relevant to our profession.	Mentor	Joaquin Pastrana – UC ANR	Virtual
9/16/25	Introduction to Placer County Firewise Community Volunteer Hour Reporting Tool presentation to	Presentation author but Joaquin Pastrana delivered	Joaquin Pastrana – UC ANR	Foresthill, CA

	Foresthill Fire Safe Council.	the presentation in-person.		
9/23/25	Introduction to Placer County Firewise Community Volunteer Hour Reporting Tool presentation to North Auburn Ophir Fire Safe Council.	Presentation author but Joaquin Pastrana delivered the presentation in-person.	Joaquin Pastrana – UC ANR	Auburn, CA

Extension Activities

a). Meetings Organized (classes, workshops, demonstrations, field days, etc)

Start and End Date	Meeting Name and Type	Role	Collaborators	Location(s)	Attendees
Enhance Forest Ecosystem and Human Community Wildfire Resilience (8)					
10/3/2023	Targeted Grazing Field Tour with United Auburn Indian Community	Organizer, facilitator	Dan Macon – UC ANR Ricky Satomi – UC ANR Roselle Busch – UC ANR Tracy Schohr – UC ANR	In-person field tour	20
11/30/23	Foothill Fire Practitioner Workshop	Organizer, facilitator	Susie Kocher – UC ANR Kestrel Grevatt – UC Berkeley Cordi Craig – Placer RCD Chris Paulus – Placer RCD	Georgetown, CA	39
2/24/24	Rancher's Fire Academy: Ranch Hardening and Fire Tools Field Day	Organizer, facilitator, presenter	Art Craigmill – UC ANR Dan Macon – UC ANR Dustin Flavell – UC ANR Joaquin Pastrana – Nevada County RCD Sean Ryan – CAL FIRE	Browns Valley, CA	15

7/30/24	Targeted Grazing Field Day	Organizer, facilitator	Ariel Roughton – Berkeley Forest Dan Macon – UC ANR Ricky Satomi – UC ANR Roselle Busch – UC ANR Tracy Schohr – UC ANR	In-person field tour	37
3/8/25	Pile Burn Workshop	Organizer, presenter	Joaquin Pastrana – UC ANR Scott Coughlin – Northern Sierra AQMD	Grass Valley, CA	32
5/3/25	Wildfire Preparedness Walking Tour	Organizer, speaker	Bruno Pitton – UC ANR Kevin Marini – UC ANR Ricky Satomi – UC ANR	Auburn, CA	22
9/17/25	Nevada City Wildfire Preparedness Walking Tour	Organizer, facilitator, presenter	Bruno Pitton – UC ANR Joaquin Pastrana – UC ANR Ricky Satomi – UC ANR Mark Buttron – Grass Valley Fire Department Evan McLenithan – Nevada City OES Kerry Rose – Deer Creek Southside Firewise Community	Nevada City, CA	37
9/20/25	Foresthill Wildfire Preparedness Walking Tour	Organizer, facilitator, presenter	Bruno Pitton – UC ANR Joaquin Pastrana – UC ANR Ricky Satomi – UC ANR Nolan Hale – CAL FIRE	Foresthill, CA	26

			Justin Schubert – CAL FIRE Tobias Williams – Placer County Sheriff's Jacqui Manning – Placer County OES Dory Cox – Cold Springs Firewise Community Dennis Martin – Foresthill Fire Protection District		
Fire and Forestry Workforce Development (7)					
11/9/23	Job Preparedness Workshop	Organizer, facilitator	CAL FIRE College of the Redwoods Green Diamond Resource Company Placer Resource Conservation District UC Berkeley US Forest Service	Virtual webinar	11
1/10/24	Becoming an RPF Career Panel	Organizer, facilitator	Dan Stapleton – California Board of Forestry and Fire Protection Pam Linstedt – CAL FIRE Colin Wong – Jefferson Resource Company Donnie Escamilla – Humboldt Redwood Company	Virtual webinar	27
3/26/24	Mentor Forum: Actions to Address Challenges to Recruitment, Hiring, and Retention	Organizer, facilitator	Joe King – Sierra Pacific Industries Mary Mayeda – NRCS Harrison Raine – UC Berkeley Christie Pollet-Young – SCS Global Services	Virtual webinar	10

			Jordan Inzunza – CAL FIRE Rachel Fulton – Humboldt Redwood Company Zach Barber – Sierra Pacific Industries		
4/29/24	Restoration Career Panel	Organizer	Stephanie Yelenik – USFS Pascal Berril – Cal Poly Humboldt Save the Redwoods League	Virtual webinar	8
5/6/24	Choosing a Path Career Panel	Organizer, facilitator	Allison Erny – Placer RCD Brita Goldstein – Green Diamond Resource Company Kieran O'Leary – Butte County Fire Safe Council Cameron Musser – Vibrant Planet	Virtual webinar	25
12/1/24-3/13/25	Planning meetings for the Diversity, Equity, Inclusion and Justice Training for the Forestry Mentorship Program	Planning committee member	Allison Erny – Mason, Bruce, and Girard Jerel Ezell – UC Berkeley Liana Vitousek – Placer RCD Renaldo Arroyo – Bakersfield College Ricky Satomi – UC ANR	Virtual	NA
3/13/25	Mill Tour with Mendocino Redwood Company	Organizer	Liana Vitousek – Placer RCD Renaldo Arroyo – Bakersfield College	Ukiah, CA	29

b). Educational Presentations at Meetings

Start and End Date	Meeting Name and Type	Role	Collaborators	Location(s)	Attendees
Enhance Forest Ecosystem and Human Community Wildfire Resilience (18)					
2/24/24	Wildfire Preparedness Strategies for Farms and Ranches	Presenter	Dan Macon – UC ANR Dustin Flavell – UC ANR Sean Ryan – CAL FIRE	Browns Valley, CA	15
4/11/24	Community Wildfire Preparedness Fundamentals	Presenter	Kevin Marini – UC ANR Olive Orchard Firewise Community	Auburn, CA	42
6/1/24	Residential Pile Burning Fundamentals at CA Tree School	Presenter	Alison Deak – UC ANR Tori Norville – UC ANR	Placerville, CA	5
6/1/24	Community Wildfire Preparedness Fundamentals at CA Tree School	Presenter	Kevin Marini – UC ANR	Placerville, CA	6
1/31/25	Blodgett Forest Research Station Research Symposium: Small Ruminant Targeted Grazing in Forest Management and Fuels Reduction presentation	Presenter, participant	Ricky Satomi – UC ANR Tracy Schohr – UC ANR Dan Macon – UC ANR	Georgetown, CA	35
3/25/25	California Forest Science Symposium: Small Ruminant	Presenter, participant	Ricky Satomi – UC ANR Tracy Schohr – UC ANR Dan Macon – UC ANR	Sacramento, CA	40

	Targeted Grazing in Forest Management and Fuels Reduction presentation		Dr. Roselle Busch – UC ANR		
4/10/25	Community Wildfire Preparedness Fundamentals	Presenter	Kevin Marini – UC ANR Cordi Craig – Placer RCD Barry Haxton – Lakeview Hills Firewise Community	Granite Bay, CA	35
4/28/25	Essential Actions to Take Before Wildfire Season	Presenter	Kevin Marini – UC ANR Jeff Mikles – Olive Orchard Firewise Community	Auburn, CA	35
5/14/25	Hidden Valley Firewise Community Fair	Tabler	Diane Means – Hidden Valley Firewise Community	Granite Bay, CA	80
5/15/25	Foresthill Fire Preparedness Fair	Tabler	Joaquin Pastrana – UC ANR Dory Cox – Foresthill Fire Safe Council	Foresthill, CA	50
6/7/25	Nevada County Health/Safety and Fire Preparedness Carnival	Tabler	Joaquin Pastrana – UC ANR Allen Schafer – Nevada City Volunteer	Nevada City, CA	45
7/9/25	Foresthill Chamber of Commerce Meeting: Essential Actions to Take Before Wildfire Season Presentation	Presenter	Dory Cox – Foresthill Fire Safe Council William Witzke – Allstate Detra Dixon - Allstate	Foresthill, CA	30
8/9/25	Hidden Lakes Estates First Responders &	Tabler	Joaquin Pastrana – UC ANR	Granite Bay, CA	50

	Fire Safety Fair		Shannon Moore – Hidden Lakes Estates Firewise Community		
9/13/25	Essential Actions to Take Before Wildfire Season	Presenter	Sharon Bradford – Naturewood Estates HOA	Meadow Vista, CA	30
9/19/25	Introduction to Placer County Firewise Community Volunteer Hour Reporting Tool presentation to Greater Auburn Fire Safe Council	Presenter	Jacqui Manning – Placer OES	Auburn, CA	35
9/23/25	Placer County Partners Forum: Small Ruminant Targeted Grazing in Forest Management and Fuels Reduction presentation	Presenter	Cordi Craig – Placer RCD	Auburn, CA	15
9/25/25	Introduction to Placer County Firewise Community Volunteer Hour Reporting Tool presentation to Placer/Sierra Fire Safe Council	Presenter	Jacqui Manning – Placer OES	Colfax, CA	15

9/30/25	Tabled for UC ANR Fire Network at Placer RCD's Resources for Firewise Communities meeting	Tabler	Cordi Craig – Placer RCD Jacqui Manning – Placer OES	Auburn, CA	35
Fire and Forestry Workforce Development (1)					
2/29/24	Introduction to a Career with UC ANR presentation to UC Berkeley's Student Association of Fire Ecology Club	Presenter	Andrew Johnson – UC Berkeley	Virtual	20

c). Other Activities (Radio interviews, newspaper interviews, websites, social media, blogs, collaborations with other organizations, policy engagement)

Start and End Date	Topic	Name of Media/Website/or Collaborators
Enhance Forest Ecosystem and Human Community Wildfire Resilience (13)		
9/1/22-Present	Shared UC ANR Fire Network content on my own social media platforms. Now, I focus efforts on sharing content on our statewide accounts.	Twitter (720 followers) – deactivated 7/1/25 BlueSky (56 followers)
9/1/22-Present	Redesigning and updating all pages and subchildren of the UC ANR Fire Network website, amending content to fit in with IWP standards. The website has 7 main pages and roughly 70 children/subchildren.	UC ANR Fire Network website
1/17/24	Assisted the Olive Orchard Firewise Community in Auburn in Assessing Firewise Community Status for their recertification.	Kevin Marini – UC ANR Jeff Mikles – Olive Orchard Firewise Community Jacqui Manning – Placer County OES

2/8/24	Invited to attend local workgroup of agencies in Placer County who help landowners recover from the 2022 Mosquito Fire.	Allison Erny – Placer RCD Scott Stephenson – Placer RCD Chris Robbins - NRCS
4/27/24	Invited to assist Greater Auburn Fire Safe Council and City of Auburn Fire in local defensible space inspection training course.	Lindsay Davidson – City of Auburn Fire John Roberts – City of Auburn Fire Jeff Mikles – Olive Orchard Firewise Community
1/1/24 - 2/1/24	Redesigned and updated the "Evacuation Preparation" content on the 2 related pages on UC ANR Fire Network's website in both English and Spanish.	UC ANR Fire Network website
12/12/24	Meeting with You Bet Firewise Community Leader, Kristen Cook to discuss potential fire preparedness educational campaigns for Nevada County	Ricky Satomi – UC ANR Kristen Cook – You Bet Firewise Community
1/22/25-Present	Prescribed Fire Guidebook for California planning committee meetings	Alison Deak – UC ANR Autym Shafer - CFSC Barb Satink Wolfson – UC ANR David Benterou – UC ANR Henri Holbrook – UC ANR Joaquin Pastrana – UC ANR Katanja Waldner – CFSC Kristen Shive – UC Berkeley Lenya Quinn-Davidson – UC ANR Leslie Bobby - ANREP
11/1/24-4/17/25	Cooperative Extension Fire Peer-Learning Exchange – Planning committee meeting calls and workshop pre-work.	Alison Deak – UC ANR Autym Shafter - CFSC Barb Satink Wolfson – UC ANR Carrie Berger – OSU Isabella Zahra – UC ANR Jennifer Fawcett – NC State Katanja Waldner – CFSC Kristen Shive – UC Berkeley Lenya Quinn-Davidson – UC ANR

		Tori Norville – UC ANR
6/3/25	Interviewed for UC ANR AAPI Heritage Month Employee Spotlight article: https://ucanr.edu/blog/employee-spotlights/article/low-blazes-way-fire-and-forestry-field.	Julienne Cancio – UC ANR
6/10/25	Introductory networking meeting with California State Senator Roger Niello's Office	Magnolia West – Senator Niello's office
7/22/25	UCCE Forest Stewardship Yuba-Nevada Cohort: Defensible Space: Applying Near-Home Principles to the Landscape. Created slides, but was not able to deliver presentation myself due to illness.	Ricky Satomi – UC ANR Dan Macon – UC ANR
9/1/25	Interviewed for Offrange article "To Burn or Not To Burn" which focused on implementing wildfire preparedness challenges and implementing prescribed fire projects on rangelands.	Lela Nargi - Offrange
Fire and Forestry Workforce Development (2)		
2/26/24	Interviewed for UCOP article about career path post-CNI Fellowship	Julia Busiek – UCOP
4/3/24	Recorded an episode of I'll Go If You Go Podcast focused on workforce development and formation of the Fire Network.	Leslie Para – Save the Redwoods League Emily Harwitz – Save the Redwoods League

F. Publications (Bibliography)

Peer-Reviewed	
B. Peer-Reviewed Scholarly Journal Publications	1
Non-Peer Reviewed	
A. Non-Peer Reviewed Popular Press Articles	24
D. Non-Peer Reviewed Technical Reports and Other Non-Reviewed Articles	5

Total Number of Publications	30

B. Peer-Reviewed Scholarly Journal Publications

Deak, A.L., **K.E. Low**, L. Carmignani, R.E. Tompkins, B. Satink Wolfson. 2025. The evolving wildfire crisis: the need to adapt statewide extension efforts to address diverse challenges. Journal Of Extension (*in press, see attached letter of acceptance*).

A. Non-Peer Reviewed Popular Press Articles During the Review Period

Benterou, D. and **K. Low**. 2025. After the fire: home garden and fruit tree safety. https://ucanr.edu/sites/default/files/2025-05/UCANRFireNetwork-AfterTheFire-HomeGardenFruitTrees_0.pdf. ***My role: writing – original draft, writing – review and editing.***

Busch, R., T. Schohr, D. Macon, R. Satomi, **K. Low**. 2024. Toxic Plants in the Forest: Western Azalea. https://ucanr.edu/sites/Rangelands/files/404433.pdf. ***My role: writing – review and editing.***

Carmignani, L., **K. Low**, T. Norville. 2023. Wildfire Preparedness for Farms, Ranches, and Agricultural Operations. https://ucanr.edu/sites/fire/files/393244.pdf. ***My role: writing – original draft, writing – review and editing, formatting.***

Deak, A., K. Low, A. Hobbs, S. Hoshiko, A. MacPherson. 2024. Smoke Readiness: Preparing for Wildfire Smoke. https://ucanr.edu/sites/fire/files/398939.pdf. ***My role: writing – review and editing, formatting.***

Hsu, M., **K. Low**, Y. Valachovic. 2024. Simple tasks make big difference in preparing for wildfire, smoke. UC ANR News and Events. https://ucanr.edu/News/?routeName=newsstory&postnum=60340. ***My role: writing – review and editing.***

Low, K. 2025. Prepare for Wildfires and Wildfire Smoke. Placer County Fire Safe Council March 2025 Newsletter. https://www.placer.ca.gov/DocumentCenter/View/86457.

Low, K. 2025. What Makes a Plant Fire-Smart. Placer County Fire Safe Council May 2025 Newsletter. https://www.placer.ca.gov/DocumentCenter/View/95072/FSA-Newsletter-May-2025.

Low, K. 2025. Firewise Community Leader Spotlight: Dory Cox. Placer County Fire Safe Council July 2025 Newsletter. https://www.placer.ca.gov/DocumentCenter/View/95073/FSA-Newsletter-July-2025.

Low, K. 2024. Prepare Your Farm or Ranch for Wildfire! Placer County Fire Safe Council July 2024 Newsletter. https://www.placer.ca.gov/DocumentCenter/View/81848.

Low, K., B. Satink Wolfson, A. Deak, J. Childress. 2024. Guide to Residential Pile Building and Burning. https://ucanr.edu/sites/fire/files/393170.pdf. ***My role: writing – original draft, writing – review and editing, formatting.***

Low, K. 2023. How do shaded fuel breaks impact wildfire effects on conifer forests in the short- and long-term? Placer County Fire Safe Council September 2023 Newsletter. https://www.placer.ca.gov/DocumentCenter/View/79016.

Low, K., J. Pastrana, J. Stackhouse. 2025. Burn planning: interpreting weather and writing prescriptions. https://ucanr.edu/sites/default/files/2025-11/Broadcast_Weather_Conditions_Factsheet_FINAL.pdf. ***My role: writing – original draft, writing – review and editing.***

Low, K. and J. Pastrana. 2025. UC ANR Fire Network Winter 2025 Newsletter. ***My role: writing – original draft, writing – review and editing.***

Low, K. and J. Pastrana. 2025. UC ANR Fire Network Spring 2025 Newsletter. ***My role: writing – original draft, writing – review and editing.***

Low, K. and J. Pastrana. 2024. Nevada County residential broadcast burn permitting guide factsheet. https://ucanr.edu/sites/UCCE_Placer_Nevada/files/407445.pdf. ***My role: writing – original draft, writing – review and editing.***

Low, K. and J. Pastrana. 2024. Placer County residential broadcast burn permitting guide factsheet. https://ucanr.edu/sites/UCCE_Placer_Nevada/files/407446.pdf. ***My role: writing – original draft, writing – review and editing.***

Macon, D., **K. Low**, R. Busch, T. Schohr. 2023. Keeping Livestock Safe and Healthy During Wildfires. https://ucanr.edu/sites/fire/files/398841.pdf. ***My role: writing – review and editing, formatting.***

Norville, T. and **K. Low**. 2024. Commentary: Before wildfire season, take actions to protect farms. Ag Alert. https://www.agalert.com/california-ag-news/archives/may-8-2024/commentary-before-wildfire-season-take-actions-to-protect-farms/. ***My role: writing – original draft, writing – review and editing.***

Norville, T. and **K. Low.** 2023. Land Stewardship and Vegetation Management. https://ucanr.edu/sites/fire/files/393245.pdf. ***My role: writing – original draft, writing – review and editing, formatting.***

Pastrana, J. and **K. Low**. 2025. After the fire: backyard chickens and egg safety. https://ucanr.edu/sites/default/files/2025-05/UCANRFireNetwork-AfterTheFire-ChickensAndEggs_0.pdf. ***My role: writing – original draft, writing – review and editing.***

Pastrana, J. and **K. Low**. 2025. After the fire: drinking water contamination and safety. https://ucanr.edu/sites/default/files/2025-07/UCANRFireNetwork_AfterTheFire_WaterContamination_FINAL_1.pdf. ***My role: writing – original draft, writing – review and editing.***

Satomi, R., **K. Low**, B.J. Pitton, I. Zahra. 2024. Fire-Smart Landscaping in the Sierra Foothills. https://ucanr.edu/sites/UCCE_Placer_Nevada/files/407444.pdf. ***My role: writing – original draft, writing – review and editing.***

Schohr, T.**, K. Low**. 2024. Grazing to reduce fire fuels. The Rangelands Partnership Newsletter. ***My role: writing – original draft, writing – review and editing.***

Zahra, I. and **K. Low**. 2025. After the fire: home garden soil management. https://ucanr.edu/sites/default/files/2025-05/UCANRFireNetwork-AfterTheFire-HomeGardenSoilMgmt.pdf. ***My role: writing – original draft, writing – review and editing.***

D. Non-Peer Reviewed Technical Reports and Other Non-Reviewed Articles During the Review Period

Low, K. and L. Quinn-Davidson. 2025. 2024 UC ANR Fire Network Annual Report. ***My role: writing – original draft, writing – review and editing.***

Low, K. and L. Quinn-Davidson. 2025. The UC ANR Fire Network informational factsheet. ***My role: writing – original draft.***

Low, K., R. Satomi, D. Macon, T. Schohr, R. Busch. 2024. Prescribed Herbivory for Forest Fuels Reduction. ***My role: data collection, data analysis, writing – original draft, writing – review and editing.***

Low, K., Y. Valachovic, L. Quinn-Davidson. 2024. 2023 UCCE Fire Team Annual Report. ***My role: writing – original draft, writing – review and editing.***

Low, K., Y.S. Valachovic, L. Quinn-Davidson. 2024. 2024 UCCE Fire Team Final Report. ***My role: writing – original draft, writing – review and editing.***

Documentation of Civil Rights Compliance for the 2023-2024 FY

Note compliance for the 2024-2025 FY has not been assessed by UC ANR.

NewEmail_Compliance Status for FY24

From David E White <dewhite@ucanr.edu>
Date Tue 9/2/2025 3:45 PM
To Katie Low <katlow@ucanr.edu>

Dear Katie ,

You are receiving this message to inform you of your program's civil rights compliance status for the information reported in Project Board for the period beginning October 1, 2023 and ending September 30, 2024 (FFY2024). Lack of compliance for two years in a row will be shared with UC ANR leadership and your supervisor. **There is no action to be taken in Project Board at this time;** you are not required to fix your FFY2024 information in Project Board.

Status: **IN by ARE**

Comments by UC ANR Office of Civil Rights: **Since all contacts were race/ethnicity/gender undetermined, no parity determination was possible. But because you established ARE, we find your program in compliance by ARE. Nicely done. Please be sure to note Daniel Obrist's recent newsletter regarding Civil Rights Compliance – this greatly affects future Project Board reporting. Also, there are some upcoming Project Board trainings coming up in September which would be highly recommended to watch.**

Completed Award Transaction Report

Investigator Name: Katie Low

Period of Review: Oct 1, 2023 - Sep 30, 2025

GTS Search Period: 10/01/2021 - 10/27/2025

**A single award may have multiple rows if multiple transactions occurred during the search period. Example: An award being funded via annual amendments would have a transaction row for each amendment. Do not sum the Cumulative Award*

***The Cumulative Award Amount for a project reflects the total amount of funds authorized by the sponsor to date, not the anticipated total award amount, if different. Example: Project is being funded via annual amendments and we're anticipatin*

****This list of funded awards may not include all of the investigator's projects. Some examples of potential discrepancies include:*

1) Projects where the transaction authorizing the award occurred outside of the search period. Example: The initial award was issued for the full five year amount upfront and there was not a subsequent transaction during the sea

2) Projects supported by donor/gift accounts or internal grants.

3) When GTS information on the project's Investigator tab is incomplete. Example: An Academic Coordinator was hired after the award so they may not be listed as a collaborator on the project in GTS.

4) Unfunded Collaborations where no subaward was issued to ANR.

GTS Number	PI Last Name	PI First Name	Unit Name	Sponsor Name	Prime Sponsor Name	Title
Y25-7657	Valachovic	Yana	UCCE Humboldt and Del Norte County	Cal Fire / CAL DEPT OF FORESTRY AND FIRE PROTECTION	Cal Fire / CAL DEPT OF FORESTRY AND FIRE PROTECTION	Fire Resilient Education and Workforce Development Program 2025

ed Amount column as it may count the same award total multiple times.
ıg a 5-year award but have only been authorized years 1 and 2 to date.

rch period.

Award Number	Project Type	Description	Free Text Description	Final Project Start Date	Final Project End Date	Transaction Total	Cumulative Awarded Amount	Process Date
5GG23129	Public Service	New		6/18/2025	7/31/2028	$1,379,729.00	$1,379,729.00	6/25/2025

Goals and Objectives for the Coming Year:
For the Period October 1, 2025 - September 30, 2026

Name:	Kathryn Low
Academic Title:	Academic Coordinator II
County/Program:	Statewide, based in Placer-Nevada (UC ANR Fire Network)
Current Rank/Step:	Step II

Part 1. Goals and Objectives for the Coming Year (October 1, 2025 - September 30, 2026)

Specific Goals	Anticipated Collaborators	Anticipated Outcomes and Impacts
Theme 1 (Goal): Enhance Forest Ecosystem and Human Community Wildfire Resilience ***UC ANR Public Values****: Protecting California's natural resources, Building climate-resilient communities and ecosystems*		
Objective: coordinate local and statewide workshops on wildfire adaptation strategies (prescribed fire and other fuel reduction treatments) for community members and professionals.	UC ANR Fire Network members, state and federal agencies, community organizations	Improved knowledge of wildfire adaptation strategies and increased resources to communities aiming to increase wildfire resilience.
Objective: design and deliver strategic programming to showcase the efforts of the UC ANR Fire Network	UC ANR Fire Network Director and members	Further the strategic development of Fire Network mission and programming statewide. Increased public awareness of wildfire-related projects UC ANR staff are working on. Greater recognition of UC ANR Fire Network as one of the lead institutions working on fire-related projects both locally and statewide.
Objective: create and maintain UC ANR Fire Network media content (Fire in California website, social media, external media content, etc).	UC ANR Fire Network members, general public	Increased public awareness about wildfire science and management issues and solutions in California. Increased public awareness about home hardening and defensible space policies and regulations in California. Improved awareness of adaptive measures homeowners can implement to increase

		wildfire resilience. Improved awareness of UC ANR Fire Network projects and local programming.
Objective: coordinate local and regional workshops on home hardening and defensible space for home owners, community members, farmers, and ranchers.	UC ANR Fire Network members, UC Faculty, state and federal agencies, community organizations	Improved knowledge of defensible space and home hardening strategies and increased resources to communities aiming to increase wildfire resilience.
Objective: assess Fire Network progress and draft reports for funders.	UC ANR Fire Network members, state fire agencies	Increased public awareness of Network outcomes. Sustained interest in funding Fire Network. Generating interest for increased collaboration between Fire Network members and new agencies and organizations.
Objective: provide administrative and technical support to UC ANR Fire Network members.	UC ANR Fire Network members	Improved Network productivity. Assisting in the creation of new wildfire resilience projects across the state.
Theme 2 (Goal): Fire and Forestry Workforce Development ***UC ANR Public Values:*** *Developing a qualified workforce for California, Building climate-resilient communities and ecosystems, Developing an equitable and inclusive society*		
Objective: coordinate forestry and natural resource workforce development projects targeting student populations and early career professionals.	UCCE Colleagues, undergraduate students, UC Faculty, state and federal agencies, community organizations	Increased recruitment and retention of students and early career professionals pursuing careers in forestry and natural resource management. Improvement of natural resource-related career development resources for aspiring professionals pursuing careers in forestry and natural resource management.
General/Other		
Objective: participate in relevant coursework and professional development trainings to prepare for the California Registered Professional Forester comprehensive exam.	UCCE Colleagues, CA Board of Forestry and Fire Protection, CA Registered Professional Foresters	Increased personal professional competency of forest management. Continued preparation to take the California Registered Professional Forester comprehensive exam when eligible.
Objective: qualify for and take the California Registered Professional	CA Board of Forestry and Fire Protection	Increased personal professional competency.

Forester comprehensive exam.		
Objective: build healthy and supportive relationships with my peers and supervisors.	UCCE colleagues, UC ANR	Increased psychological safety and confidence for implementing extension programming in rural areas and with new populations. Enhancement of statewide, collaborative programming.
Objective: enhance professional competence through collaborative research projects related to forest and fire management.	UCCE Colleagues, UC ANR Fire Network members, UC Faculty, state and federal agencies	Increased personal knowledge of latest forest and fire ecology research. Production of novel research that will aid forest and fire managers in their resilience planning across the state.
Objective: build healthy and supportive relationships with my supervisees.	UC ANR Fire Network Staff Research Associates	Improved awareness of requirements and resources available to staff research associates. Increased psychological safety and confidence for implementing extension programming in both Placer and Nevada counties and statewide. Efficient and effective implementation of extension programming.
Objective: cultivate and maintain a healthy work life balance.	UCCE Colleagues	Improved personal physical and emotional health and wellbeing. Improved boundaries with coworkers. Enhanced working relationships and overall productivity.

Part 2. Anticipated Barriers or Obstacles in Accomplishing Your Goals and Objectives

As I continue to supervise two employees, I am still trying to understand UC ANR reporting requirements for supervisees and supervisors and resources available. I am learning how to navigate UC ANR infrastructure as I go by continuing to ask my peers and supervisors for help and keeping up to date with UC ANR's online resources and handbooks. Additionally, I am still trying to navigate how I can best support Network members across the state, particularly as the Fire Advisor team takes on larger, statewide projects. I continue to navigate how to work with additional new advisors and external collaborators in Placer and Nevada counties to build my own local program. To address these challenges moving forward, I will continue to communicate with the Fire Network Director, local County Director, and members to assess Network progress and solicit recommendations for ways I can improve my coordination efforts both locally and statewide.

There are additional challenges I experience as a woman of color working on natural resource-related issues in a rural area. To maintain my wellbeing and physical safety, I continue to have open conversations with my supervisors and have joined the People of Color Employee Resource Group to connect with other POC colleagues in ANR and seek support from peers with similar identities. I acknowledge that issues of discrimination from community members are not something that I or my UCCE colleagues can directly control, but as someone who aims to have a career in extension, I would like UCANR leadership to develop strategies for employees of

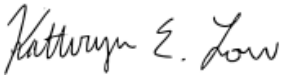
color to engage with communities in a safe and sustainable way.

Part 3. Support from Supervisor(s)

I continue to seek more active guidance from my supervisors about my role's responsibilities and expectations. Specifically, I seek additional guidance on regular responsibilities related to supporting our Network. I would like to continue to have bi-monthly check-ins with the Fire Network Director to ensure I am on track to meet stated grant deliverables. In the last year, we hired a new Area County Director for my local county offices. I would like for the new County Director to spend time getting to know me and my local programs as well as familiarizing themselves with the local fire- and natural resource-related issues in our local areas.

I would appreciate UC ANR leadership providing more orientation programming for new academics, particularly academics working in natural resources and/or Academic Coordinators. To learn more about resources for Academic Coordinators and to provide mentorship for other Coordinators, I joined the Academic Coordinator Committee this past year and will be co-chair of the committee for FY 26-27.

Part 4. Signatures

Academic: 	**Date:** 8/15/2025
Supervisor: 	**Date:** 8/22/2025
Supervisor: 	**Date:** 8/22/2025

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October 6, 2025

To whom it may concern:

I am writing to confirm that on May 15th, 2025 “The Evolving Wildfire Crisis: The Need to Adapt Statewide Extension Efforts to Address Diverse Challenges,” submitted by Alison Deak, Kathryn Low, Luca Carmignani, Ryan Tompkins, and Barbara Wolfson was accepted for publication in the *Journal of Extension*.

Because the journal is currently facing a publication backlog, we expect to publish this article in 2026. I anticipate this article will be well-received, and I look forward to reviewing further work by these authors in the future. If you have any questions, please feel free to contact me directly at j-anding@tamu.edu.

Yours sincerely,

Jenna Anding

Jenna Anding, PhD, RDN, LD
Senior Editor
Journal of Extension

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